



Accredited Africa Training Institute for Capacity Development

Unit FO409, Hatfield Plaza · 1122 Burnett St, Hatfield 0028 · Pretoria, Gauteng · South Africa

Tel: +27 12 004 8389 · Mobile: +27 65 077 6310

Email: apply@aatikd.co.za · Website: www.aatikd.co.za

COURSE BROCHURE

Wastewater Treatment Operations

Custom Courses / Water & Environmental Management

Unit Standard AATICD-0207 · NQF Level 5 · 10 Credits · 5 Days

COURSE OVERVIEW

This course equips learners with the fundamental knowledge and practical skills required to operate and monitor wastewater treatment processes effectively. It focuses on understanding the principles of wastewater treatment, routine operational procedures, and compliance with health, safety, and environmental regulations. Learners will be able to contribute to the efficient and safe management of wastewater treatment facilities.

Category	Custom Courses
Subfield	Water & Environmental Management
Unit Standard	AATICD-0207
Accreditation	SAQA Accredited · NQF Level 5 · 10 Credits
Duration	5 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Explain the principles and objectives of wastewater treatment processes.
- Apply routine operational procedures for screening, sedimentation, biological treatment, and disinfection.
- Monitor and control key process parameters such as flow rate, pH, dissolved oxygen, and sludge volume.
- Demonstrate compliance with health, safety, and environmental regulations in wastewater operations.
- Identify and respond to common operational problems and process upsets.
- Maintain accurate operational records and reports.

WHO SHOULD ATTEND

- This course is designed for entry-level operators, process controllers, and technicians working in municipal or industrial wastewater treatment plants.
- It is also suitable for individuals seeking to enter the water and wastewater sector.

COURSE OUTLINE

Day 1: Introduction to Wastewater Treatment

- Overview of wastewater treatment and its role in environmental protection
- South African regulatory framework and standards
- Wastewater sources and characteristics
- Key water quality parameters and their significance
- Introduction to treatment processes: physical, chemical, biological
- Health and safety considerations in wastewater operations

Day 2: Preliminary and Primary Treatment

- Preliminary treatment: screening, comminution, grit removal
- Primary treatment: sedimentation tanks, clarifier design and operation
- Flow measurement and hydraulic loading calculations
- Sludge handling from primary treatment
- Operational monitoring and control parameters
- Troubleshooting common primary treatment problems

Day 3: Biological Treatment Processes

- Microbiology of wastewater treatment
- Activated sludge process: aeration, settling, return sludge
- Control parameters: F/M ratio, sludge age, dissolved oxygen
- Biofilm systems: trickling filters, RBCs
- Nutrient removal: nitrification and denitrification
- Process troubleshooting and optimization

Day 4: Advanced Treatment and Sludge Management

- Tertiary treatment: sand filtration, membrane filtration, advanced oxidation
- Disinfection: chlorine, UV, ozone – principles and safety
- Nutrient removal: biological and chemical phosphorus removal
- Sludge treatment: thickening, anaerobic digestion, aerobic digestion
- Sludge dewatering: centrifuges, belt presses, drying beds
- Sludge disposal: land application, incineration, landfill

Day 5: Plant Operations, Maintenance, and Practical Integration

- Plant operations: daily rounds, data logging, reporting
- Process control: using lab data to adjust parameters
- Equipment maintenance: pumps, blowers, screens, clarifiers
- Troubleshooting: bulking sludge, foaming, rising sludge
- Emergency response and safety procedures
- Final assessment and course wrap-up

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 24,200.00	R 24,200.00
1	In-House	R 31,400.00	R 31,400.00
1	On-Campus (Pretoria)	R 36,200.00	R 36,200.00

UPCOMING SESSIONS

Start	End	Method	Venue
10 Aug 2026	14 Aug 2026	On-Campus	Durban, South Africa
10 Aug 2026	14 Aug 2026	On-Campus	Abu Dhabi, UAE
17 Aug 2026	21 Aug 2026	On-Campus	Harare, Zimbabwe
17 Aug 2026	21 Aug 2026	On-Campus	Shenzhen, China
24 Aug 2026	28 Aug 2026	On-Campus	Bangkok, Thailand
24 Aug 2026	28 Aug 2026	On-Campus	Victoria Falls, Zimbabwe
31 Aug 2026	04 Sep 2026	On-Campus	Lusaka, Zambia
31 Aug 2026	04 Sep 2026	On-Campus	London, UK

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 AATICD-0207) 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.

Accredited Africa Training Institute for Capacity Development

Unit F0409, Hatfield Plaza, 1122 Burnett St, Hatfield 0028, Pretoria, Gauteng, South Africa
Tel: +27 12 004 8389 · WhatsApp: +27 65 077 6310 · apply@aaticd.co.za · www.aaticd.co.za