



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@aaticd.co.za · Website: www.aaticd.co.za

COURSE BROCHURE

Basic Hydroponic System Operations Routine Procedures Training

Agriculture and Nature Conservation / Primary Agriculture

Unit Standard 116148 · NQF Level 1 · 5 Credits · 2 Days

COURSE OVERVIEW

This course equips learners with the practical skills and knowledge required to operate and maintain basic hydroponic systems. It covers routine procedures such as monitoring nutrient solutions, managing pH and electrical conductivity, and performing daily system checks. The training ensures safe, efficient, and sustainable hydroponic operations within a South African agricultural context.

Category	Agriculture and Nature Conservation
Subfield	Primary Agriculture
Unit Standard	116148
Accreditation	SAQA Accredited · NQF Level 1 · 5 Credits
Duration	2 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Demonstrate routine procedures for monitoring and adjusting nutrient solution levels and pH in a hydroponic system.
- Apply safety protocols and personal protective equipment requirements during hydroponic system operations.
- Analyze system performance indicators such as electrical conductivity and temperature to identify potential issues.
- Implement daily cleaning and maintenance schedules for hydroponic components including pumps, pipes, and growing trays.
- Evaluate plant health indicators to determine nutrient deficiencies or pest infestations within the hydroponic environment.
- Record operational data accurately using standard logs for compliance and system optimization.

WHO SHOULD ATTEND

- This course is designed for entry-level hydroponic farm workers, small-scale farmers, and agricultural technicians who need to perform daily operational tasks in hydroponic systems.
- It is also suitable for individuals seeking foundational skills in controlled environment agriculture.

COURSE OUTLINE

Day 1: Fundamentals of Hydroponic Systems and Routine Operations

- Introduction to hydroponics: definitions, benefits, and limitations.
- Types of hydroponic systems: NFT, DWC, drip, ebb and flow.
- System components: reservoirs, pumps, timers, growing media.
- Safety procedures: electrical safety, chemical handling, personal protective equipment.
- Nutrient solutions: composition, mixing, and storage.
- pH and electrical conductivity (EC): measurement, adjustment, and target ranges.
- Routine monitoring: temperature, light, water levels, and flow rates.
- Record-keeping: logs for system parameters and observations.

Day 2: Advanced Operations, Troubleshooting, and Maintenance

- Cleaning protocols: disassembly, flushing, and sanitising components.
- Troubleshooting: pump failures, clogged lines, nutrient imbalances.
- Pest and disease management: identification, prevention, and organic controls.
- Nutrient solution management: adjusting for vegetative vs. flowering stages.
- System maintenance: replacing filters, calibrating meters, inspecting seals.
- Crop changeover procedures: removing plants, cleaning system, restarting.
- Emergency procedures: power outages, leaks, and chemical spills.
- Practical assessment: simulate a routine operation and troubleshooting scenario.

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 **5 NQF credits** at **NQF Level 1**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 15,400.00	R 15,400.00
1	In-House	R 20,000.00	R 20,000.00
1	On-Campus (Pretoria)	R 23,100.00	R 23,100.00

UPCOMING SESSIONS

Start	End	Method	Venue
11 Aug 2026	12 Aug 2026	On-Campus	Abu Dhabi, UAE
11 Aug 2026	12 Aug 2026	On-Campus	Dubai, UAE
11 Aug 2026	12 Aug 2026	On-Campus	Mauritius
13 Aug 2026	14 Aug 2026	On-Campus	Durban, South Africa
13 Aug 2026	14 Aug 2026	On-Campus	Pretoria, South Africa
13 Aug 2026	14 Aug 2026	On-Campus	Cape Town, South Africa
17 Aug 2026	18 Aug 2026	On-Campus	Pretoria, South Africa
17 Aug 2026	18 Aug 2026	On-Campus	Durban, 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 116148) 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 FO409, 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