



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

Metallurgical Process Ph Level Control Techniques Training

Manufacturing, Engineering and Technology / Fabrication and Extraction

Unit Standard 110162 · NQF Level 2 · 4 Credits · 1 Day

COURSE OVERVIEW

This course equips learners with the knowledge and skills to control pH levels in metallurgical processes effectively. Participants will understand the principles of pH measurement, adjustment techniques, and the impact of pH on process efficiency and safety. By the end of the course, learners will be able to apply pH control methods to optimize metallurgical operations.

Category	Manufacturing, Engineering and Technology
Subfield	Fabrication and Extraction
Unit Standard	110162
Accreditation	SAQA Accredited · NQF Level 2 · 4 Credits
Duration	1 day
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply pH measurement principles and select appropriate instrumentation for metallurgical processes.
- Analyze the effects of pH on chemical reactions, precipitation, and metal recovery.
- Evaluate pH control strategies, including feedback and feedforward control systems.
- Design pH adjustment procedures using acids, bases, and buffers to maintain process stability.
- Implement safety protocols for handling corrosive reagents and calibrating pH sensors.
- Demonstrate troubleshooting techniques for common pH control issues in metallurgical circuits.

WHO SHOULD ATTEND

- This course is designed for metallurgical process operators, technicians, and supervisors involved in mineral processing and hydrometallurgy.
- It is also suitable for quality control personnel and process engineers seeking to enhance their understanding of pH control in industrial settings.

COURSE OUTLINE

Day 1: Fundamentals of pH Control in Metallurgical Processes

- Importance of pH in leaching, precipitation, and flotation
- pH measurement principles: electrodes, probes, and calibration
- Control loops: feedback, feedforward, and cascade control
- pH adjustment chemicals: acids, bases, and handling procedures
- Troubleshooting common pH control issues
- Safety considerations: chemical hazards and PPE
- Data logging and interpretation for process optimization
- Regulatory compliance and environmental impact

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 **4 NQF credits** at **NQF Level 2**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 12,800.00	R 12,800.00
1	In-House	R 16,600.00	R 16,600.00
1	On-Campus (Pretoria)	R 19,200.00	R 19,200.00

UPCOMING SESSIONS

Start	End	Method	Venue
03 Aug 2026	03 Aug 2026	On-Campus	Dubai, UAE
04 Aug 2026	04 Aug 2026	On-Campus	Pretoria, South Africa
04 Aug 2026	04 Aug 2026	On-Campus	Lagos, Nigeria
05 Aug 2026	05 Aug 2026	On-Campus	Johannesburg, South Africa
06 Aug 2026	06 Aug 2026	On-Campus	Mauritius
07 Aug 2026	07 Aug 2026	On-Campus	Cape Town, South Africa
10 Aug 2026	10 Aug 2026	On-Campus	Pretoria, South Africa
11 Aug 2026	11 Aug 2026	On-Campus	Abu Dhabi, 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 110162) 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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