



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

First Line Maintenance on Metals Production Equipment

Manufacturing, Engineering and Technology / Manufacturing and Assembly

Unit Standard 259723 · NQF Level 3 · 10 Credits · 7 Days

COURSE OVERVIEW

This course equips learners with the skills to perform routine first line maintenance on equipment used in metals production, ensuring operational efficiency and safety. Participants will learn to identify faults, conduct preventive checks, and carry out minor repairs in compliance with industry standards.

Category	Manufacturing, Engineering and Technology
Subfield	Manufacturing and Assembly
Unit Standard	259723
Accreditation	SAQA Accredited · NQF Level 3 · 10 Credits
Duration	7 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply safe work practices when performing first line maintenance on metals production equipment.
- Analyze equipment performance to identify potential faults and maintenance needs.
- Demonstrate correct procedures for lubricating, cleaning, and adjusting production equipment.
- Implement preventive maintenance schedules to minimize downtime.
- Evaluate the condition of components and replace consumables as required.
- Document maintenance activities and report deviations accurately.

WHO SHOULD ATTEND

- This course is designed for operators, artisans, and maintenance personnel working in metals production environments who are responsible for basic equipment upkeep.

COURSE OUTLINE

Day 1: Introduction to Metals Production Equipment and Maintenance Principles

- Overview of metals production processes
- Types of equipment: furnaces, conveyors, crushers, mills
- Introduction to maintenance strategies (reactive, preventive, predictive)
- Safety regulations and PPE requirements
- Documentation and reporting basics

Day 2: Mechanical Systems and Components

- Bearings, gears, belts, chains, and couplings
- Lubrication systems and procedures
- Inspection techniques for mechanical wear
- Fasteners and torque specifications
- Hand and power tools for mechanical maintenance

Day 3: Electrical Systems and Instrumentation

- Electrical safety and lockout/tagout (LOTO)
- Motors, starters, and variable frequency drives
- Sensors: temperature, pressure, level, flow
- Reading electrical schematics
- Multimeter usage for voltage, current, resistance

Day 4: Hydraulic and Pneumatic Systems

- Hydraulic fluid properties and contamination control
- Pumps, valves, actuators, and accumulators
- Pneumatic compressors, filters, regulators, and lubricators
- Reading hydraulic and pneumatic diagrams
- Leak detection and seal replacement

Day 5: Predictive Maintenance Techniques

- Vibration analysis fundamentals
- Infrared thermography for overheating detection
- Oil analysis and wear particle analysis
- Ultrasonic testing for leaks and bearing faults
- Implementing a predictive maintenance program

Day 6: Troubleshooting and Repair Procedures

- Troubleshooting methodology (5 Whys, fishbone diagram)
- Repair of conveyors, pumps, and motors
- Alignment and balancing procedures
- Welding and cutting basics for maintenance
- Maintenance work orders and history logs

Day 7: Integration, Assessment, and Continuous Improvement

- Practical assessment of maintenance skills
- Developing a preventive maintenance schedule
- Root cause analysis and corrective actions
- Key performance indicators (KPIs) for maintenance

- Course review and final assessment

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 3**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 28,200.00	R 28,200.00
1	In-House	R 36,700.00	R 36,700.00
1	On-Campus (Pretoria)	R 42,300.00	R 42,300.00

UPCOMING SESSIONS

Start	End	Method	Venue
05 Aug 2026	13 Aug 2026	On-Campus	Pretoria, South Africa
05 Aug 2026	13 Aug 2026	On-Campus	Lagos, Nigeria
06 Aug 2026	14 Aug 2026	On-Campus	Johannesburg, South Africa
07 Aug 2026	17 Aug 2026	On-Campus	Mauritius
10 Aug 2026	18 Aug 2026	On-Campus	Dubai, UAE
11 Aug 2026	19 Aug 2026	On-Campus	Pretoria, South Africa
12 Aug 2026	20 Aug 2026	On-Campus	Abu Dhabi, UAE
13 Aug 2026	21 Aug 2026	On-Campus	Mauritius

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 259723) 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@aatid.co.za · www.aatid.co.za