



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

Demonstrate An Understanding Of The Electrical Environment In The Rail Sector Training

Physical Planning and Construction / Electrical Infrastructure Construction

Unit Standard 119882 · NQF Level 1 · 1 Credits · 1 Day

COURSE OVERVIEW

This course equips learners with the essential knowledge to understand and work safely within the electrical environment of the rail sector. It covers electrical principles, hazards, and safety protocols specific to railway operations, ensuring compliance with South African regulations and industry standards.

Category	Physical Planning and Construction
Subfield	Electrical Infrastructure Construction
Unit Standard	119882
Accreditation	SAQA Accredited · NQF Level 1 · 1 Credits
Duration	1 day
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Demonstrate an understanding of basic electrical principles and their application in the rail sector.
- Identify and assess electrical hazards commonly encountered in railway environments.
- Apply safety procedures and precautions when working with or near electrical equipment in rail operations.
- Interpret electrical diagrams and symbols used in railway systems.
- Explain the role of protective devices and earthing systems in ensuring electrical safety.
- Comply with relevant South African legislation and industry standards for electrical work in the rail sector.

WHO SHOULD ATTEND

- This course is intended for rail sector employees, including maintenance technicians, electrical assistants, and safety officers, who require foundational understanding of electrical systems and safety in rail environments.

COURSE OUTLINE

Day 1: Understanding the Electrical Environment in the Rail Sector

- Overview of the South African rail sector and its electrical infrastructure.
- Relevant legislation: OHS Act, SANS 10219, and rail-specific standards.
- Basic electrical concepts: voltage, current, resistance, and power in DC and AC traction systems.
- Electrical supply systems: overhead catenary (OCL), third rail, and substations.
- Electrical hazards: shock, arc flash, and fire risks.
- Personal protective equipment (PPE) and safe work practices.
- Emergency response: first aid for electrical shock, fire extinguisher use, and evacuation.
- Case study: typical electrical incidents in rail operations and lessons learned.

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

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
06 Aug 2026	06 Aug 2026	On-Campus	Johannesburg, South Africa
07 Aug 2026	07 Aug 2026	On-Campus	Mauritius
10 Aug 2026	10 Aug 2026	On-Campus	Dubai, UAE
11 Aug 2026	11 Aug 2026	On-Campus	Pretoria, South Africa
12 Aug 2026	12 Aug 2026	On-Campus	Abu Dhabi, UAE
13 Aug 2026	13 Aug 2026	On-Campus	Durban, South Africa
13 Aug 2026	13 Aug 2026	On-Campus	Mauritius
14 Aug 2026	14 Aug 2026	On-Campus	Cape Town, 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 119882) 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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