



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

Electrical And Electronic Components Knowledge Training

Manufacturing, Engineering and Technology / Manufacturing and Assembly

Unit Standard 115230 · NQF Level 2 · 3 Credits · 1 Day

COURSE OVERVIEW

This course provides participants with foundational knowledge of electrical and electronic components, their functions, and applications. It equips learners with the ability to identify, select, and apply these components in basic circuits and systems.

Category	Manufacturing, Engineering and Technology
Subfield	Manufacturing and Assembly
Unit Standard	115230
Accreditation	SAQA Accredited · NQF Level 2 · 3 Credits
Duration	1 day
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Identify and describe the function of common electrical and electronic components such as resistors, capacitors, diodes, and transistors.
- Apply Ohm's law and Kirchhoff's laws to calculate voltage, current, and resistance in simple circuits.
- Interpret schematic diagrams and component datasheets to select appropriate components for given applications.
- Demonstrate safe handling and testing procedures for electrical and electronic components using multimeters and oscilloscopes.
- Analyze basic circuit configurations (series, parallel, and mixed) to predict circuit behavior.
- Evaluate the suitability of components based on specifications such as tolerance, power rating, and frequency response.

WHO SHOULD ATTEND

- This course is designed for technicians, artisans, and entry-level engineers who require a solid understanding of electrical and electronic components in industrial or domestic contexts.

COURSE OUTLINE

Day 1: Fundamentals of Electrical and Electronic Components

- Overview of electrical vs electronic components and their roles in circuits.
- Resistors: types (fixed, variable), colour coding, power rating, and series/parallel combinations.
- Capacitors: types (ceramic, electrolytic), capacitance, voltage rating, and charging/discharging behaviour.
- Inductors and transformers: basic principles, inductance, and core materials.
- Diodes: semiconductor basics, forward/reverse bias, rectifier and Zener diodes.
- Transistors: NPN/PNP BJTs, switching and amplification basics.
- Introduction to datasheets: interpreting key parameters and safe operating limits.
- Practical session: using a multimeter to measure resistance, voltage, and continuity; identifying components on a circuit board.

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 **3 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
05 Aug 2026	05 Aug 2026	On-Campus	Pretoria, South Africa
05 Aug 2026	05 Aug 2026	On-Campus	Lagos, Nigeria
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	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 115230) 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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