



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

COURSE BROCHURE

Electronic Equipment Installation for Technicians

Law, Military Science and Security / Safety in Society

Unit Standard 244333 · NQF Level 4 · 12 Credits · 9 Days

COURSE OVERVIEW

This course equips technicians with the practical skills and theoretical knowledge required to install electronic equipment safely and in compliance with industry standards. Participants will learn to interpret installation specifications, select appropriate tools and materials, and perform installations that meet operational requirements.

Category	Law, Military Science and Security
Subfield	Safety in Society
Unit Standard	244333
Accreditation	SAQA Accredited · NQF Level 4 · 12 Credits
Duration	9 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Interpret installation specifications and schematic diagrams to determine equipment placement and wiring requirements.
- Select and verify appropriate tools, test equipment, and consumables for electronic equipment installation.
- Install electronic equipment following manufacturer guidelines and safety procedures.
- Test installed equipment to ensure correct operation and compliance with specifications.
- Document installation activities and report any deviations or faults encountered.
- Apply relevant health, safety, and environmental regulations during installation tasks.

WHO SHOULD ATTEND

- This course is designed for technicians and technical staff responsible for installing electronic equipment in various settings, including telecommunications, security systems, and industrial automation.

COURSE OUTLINE

Day 1: Introduction to Electronic Equipment and Safety

- Overview of electronic equipment types and applications
- Occupational Health and Safety Act (OHSA) requirements
- Personal protective equipment (PPE) and safe work practices
- Hazard identification and risk assessment
- Safe handling of tools and equipment
- Emergency procedures and first aid basics
- Introduction to installation documentation and specifications

Day 2: Fundamentals of Electrical and Electronic Principles

- Electrical units and measurement instruments
- Series and parallel circuits
- Circuit protection devices: fuses, breakers, RCDs
- Introduction to electronic components (resistors, capacitors, diodes)
- Power supply types and ratings
- Wiring colour codes and standards
- Basic troubleshooting using multimeters

Day 3: Tools, Test Equipment and Installation Hardware

- Hand tools: cutters, strippers, crimpers, screwdrivers
- Power tools: drills, impact drivers, cable pullers
- Test equipment operation and safety
- Cable types and connectors (coaxial, twisted pair, fibre optic)
- Enclosure types (IP ratings) and mounting methods
- Cable management: trays, conduits, trunking
- Labelling and documentation practices

Day 4: Reading and Interpreting Installation Drawings

- Types of drawings: block, schematic, wiring, layout
- Symbols for electronic components and devices
- Reading cable schedules and termination lists
- Scaling and measurement on drawings
- Coordination with architectural and mechanical drawings
- Site survey and as-built documentation

Day 5: Cable Installation and Termination Techniques

- Cable pulling techniques and tension limits
- Bending radius and derating factors
- Termination of coaxial cables (BNC, F-type)
- Termination of twisted pair cables (RJ45, punch-down blocks)
- Fibre optic connectorisation (ST, SC, LC)
- Soldering and crimping best practices
- Cable testing: continuity, insulation, and signal integrity

Day 6: Equipment Mounting and Rack Installation

- Rack types (19-inch, open frame, wall-mount)

- Equipment mounting hardware and spacing
- Cable management: vertical/horizontal organisers, D-rings
- Power distribution units (PDUs) and UPS integration
- Grounding and bonding requirements
- Thermal management: fans, vents, heat sinks
- Labelling equipment and cables

Day 7: Power Supply and Backup Systems Installation

- Power supply specifications and selection
- Wiring power inputs and distribution
- UPS types (offline, line-interactive, online) and installation
- Battery connections and safety
- Surge protective devices (SPDs) and placement
- Power quality testing and monitoring
- Emergency power-off (EPO) systems

Day 8: System Integration and Commissioning

- Integration of sensors, controllers, and actuators
- Network cabling and switch configuration basics
- System commissioning procedures and checklists
- Functional testing: input/output verification
- Signal loop checks and calibration
- Troubleshooting common installation faults
- Creating as-built documentation and test reports

Day 9: Quality Assurance, Handover and Maintenance

- Quality assurance standards (ISO, SANS)
- Inspection checklists and sign-off procedures
- Handover documentation: O&M; manuals, warranty info
- Preventive maintenance tasks and intervals
- Spare parts management and stock control
- Customer training and support basics
- Health, safety and environmental compliance review

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 **12 NQF credits** at **NQF Level 4**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 33,300.00	R 33,300.00
1	In-House	R 43,300.00	R 43,300.00
1	On-Campus (Pretoria)	R 50,000.00	R 50,000.00

UPCOMING SESSIONS

Start	End	Method	Venue
12 Aug 2026	24 Aug 2026	On-Campus	Pretoria, South Africa
12 Aug 2026	24 Aug 2026	On-Campus	Mauritius
14 Aug 2026	26 Aug 2026	On-Campus	Abu Dhabi, UAE
14 Aug 2026	26 Aug 2026	On-Campus	Cape Town, South Africa
17 Aug 2026	27 Aug 2026	On-Campus	Shenzhen, China
17 Aug 2026	27 Aug 2026	On-Campus	Pretoria, South Africa
18 Aug 2026	28 Aug 2026	On-Campus	Harare, Zimbabwe
18 Aug 2026	28 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 244333) 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