



## 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

# Radio Transceiver Operation for Two-Way Communication

Law, Military Science and Security / Sovereignty of the State

Unit Standard 230052 · NQF Level 3 · 6 Credits · 3 Days

## COURSE OVERVIEW

This course equips learners with the knowledge and practical skills to operate a radio transceiver effectively for two-way communication in various work environments. It covers essential procedures, protocols, and safety practices to ensure reliable and efficient communication.

|                 |                                           |
|-----------------|-------------------------------------------|
| Category        | Law, Military Science and Security        |
| Subfield        | Sovereignty of the State                  |
| Unit Standard   | 230052                                    |
| Accreditation   | SAQA Accredited · NQF Level 3 · 6 Credits |
| Duration        | 3 days                                    |
| Training Method | Online, On-Campus, In-House               |
| Certificate     | Issued via AATICD LMS – verifiable online |

## LEARNING OUTCOMES

- Demonstrate the correct procedures for turning on, adjusting, and turning off a radio transceiver.
- Apply standard two-way communication protocols and etiquette during transmissions.
- Analyze and troubleshoot common radio communication issues such as interference and poor signal strength.
- Implement safety practices and regulatory requirements for radio transceiver operation.
- Evaluate the effectiveness of communication and adjust techniques for clarity and brevity.

## WHO SHOULD ATTEND

- This course is designed for employees who need to use two-way radio communication as part of their daily duties, including security personnel, event coordinators, field workers, and logistics staff.

## COURSE OUTLINE

### Day 1: Fundamentals of Radio Communication and Transceiver Components

- Introduction to two-way radio communication and applications.
- Radio wave theory: frequency, wavelength, and modulation.
- Frequency bands and licensing requirements in South Africa (ICASA).
- Transceiver block diagram: transmitter, receiver, antenna, power supply, controls.
- Communication protocols: call signs, phonetic alphabet, standard phrases.
- Operating procedures: listening before transmitting, over, out, roger.
- Pre-operational checks: power, antenna connection, channel selection.
- Safety: RF exposure, electrical safety, antenna hazards.

### Day 2: Transceiver Operation, Tuning, and Troubleshooting

- Simplex vs. repeater operation: when and how to use.
- Controls and indicators: power, volume, squelch, channel, PTT, monitor.
- Antenna types and their effect on range and clarity.
- Troubleshooting: no power, poor audio, interference, range issues.
- Accessory connections: headsets, lapel mics, external speakers.
- Emergency procedures: mayday, pan-pan, and urgency calls.
- Radio etiquette in group and multi-channel environments.
- Battery management and charging best practices.

### Day 3: Advanced Operation, Maintenance, and Practical Integration

- Programming frequencies, CTCSS/DCS tones, and power levels.
- Maintenance: cleaning contacts, inspecting cables, replacing fuses.
- Range testing: using signal meters and field strength indicators.
- Multi-unit coordination: net control, relay, and talk-around.
- Regulatory compliance: logbooks, station licenses, frequency usage.
- Interference mitigation: co-channel, adjacent channel, and desense.
- Scenario-based exercise: coordinating a search or event communication.

## 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 **6 NQF credits** at **NQF Level 3**.

## PRICING (PER DELEGATE, EX-VAT)

| Delegates | Training Method      | Price per Delegate | Total       |
|-----------|----------------------|--------------------|-------------|
| 1         | Online               | R 17,900.00        | R 17,900.00 |
| 1         | In-House             | R 23,300.00        | R 23,300.00 |
| 1         | On-Campus (Pretoria) | R 26,800.00        | R 26,800.00 |

## UPCOMING SESSIONS

| Start       | End         | Method    | Venue                   |
|-------------|-------------|-----------|-------------------------|
| 10 Aug 2026 | 12 Aug 2026 | On-Campus | Durban, South Africa    |
| 10 Aug 2026 | 12 Aug 2026 | On-Campus | Dubai, UAE              |
| 11 Aug 2026 | 13 Aug 2026 | On-Campus | Pretoria, South Africa  |
| 11 Aug 2026 | 13 Aug 2026 | On-Campus | Mauritius               |
| 12 Aug 2026 | 14 Aug 2026 | On-Campus | Abu Dhabi, UAE          |
| 12 Aug 2026 | 14 Aug 2026 | On-Campus | Cape Town, South Africa |
| 17 Aug 2026 | 19 Aug 2026 | On-Campus | Shenzhen, China         |
| 17 Aug 2026 | 19 Aug 2026 | On-Campus | Pretoria, 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](http://www.aaticd.co.za), open the page for this course (Unit Standard 230052) 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](mailto: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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