



## 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](mailto:apply@aatikd.co.za) · Website: [www.aatikd.co.za](http://www.aatikd.co.za)

### COURSE BROCHURE

# Studio Broadcast Equipment Operation Training

Communication Studies and Language / Communication Studies

Unit Standard 117563 · NQF Level 5 · 15 Credits · 12 Days

## COURSE OVERVIEW

This course equips learners with the practical skills and theoretical knowledge required to operate studio broadcast equipment effectively. It covers the setup, operation, and basic troubleshooting of audio, video, and lighting equipment in a broadcast studio environment. The training ensures compliance with industry standards and promotes safe working practices.

|                 |                                            |
|-----------------|--------------------------------------------|
| Category        | Communication Studies and Language         |
| Subfield        | Communication Studies                      |
| Unit Standard   | 117563                                     |
| Accreditation   | SAQA Accredited · NQF Level 5 · 15 Credits |
| Duration        | 12 days                                    |
| Training Method | Online, On-Campus, In-House                |
| Certificate     | Issued via AATICD LMS – verifiable online  |

## LEARNING OUTCOMES

- Apply safe working practices when operating studio broadcast equipment.
- Demonstrate the ability to set up and configure audio, video, and lighting equipment for a broadcast session.
- Operate studio mixing consoles, cameras, and recording devices according to standard procedures.
- Analyze signal flow and troubleshoot common technical issues in broadcast equipment.
- Implement quality control checks to ensure optimal audio and video output.
- Evaluate equipment performance and perform basic maintenance tasks.

## WHO SHOULD ATTEND

- This course is designed for technicians, broadcast operators, and media professionals who need to operate studio equipment in radio, television, or production studios.
- It is also suitable for individuals entering the broadcast industry seeking hands-on training.

## COURSE OUTLINE

### Day 1: Introduction to Studio Broadcast Equipment

- Overview of studio layout and equipment
- Signal flow: audio chain from source to output
- Audio console basics: channels, faders, and routing
- Patch bays and signal routing
- Microphone types: dynamic, condenser, ribbon
- Studio safety: electrical safety, cable management

### Day 2: Audio Consoles and Mixers

- Console architecture: input channels, buses, master section
- Gain staging and trim adjustment
- Equalisation: parametric, graphic, shelving
- Auxiliary sends: pre/post fade, effects routing
- Basic mixing techniques for broadcast
- Troubleshooting: noise, distortion, feedback

### Day 3: Microphone Techniques and Placement

- Polar patterns: cardioid, omnidirectional, figure-8
- Proximity effect and bass boost
- Microphone placement for vocals, instruments, and ambient
- Stereo microphone techniques: X/Y, ORTF
- Lavalier and headset microphones setup
- Level management and gain before feedback

### Day 4: Audio Processing and Dynamics

- Dynamic range and compression: threshold, ratio, attack, release
- Noise gates: threshold, range, hold
- Limiters: preventing overload
- Equalisation for speech and music
- De-essers: sibilance reduction
- Practical exercises with hardware processors

### Day 5: Studio Monitoring and Acoustics

- Nearfield monitors: placement and calibration
- Room acoustics: reflections, absorption, diffusion
- Headphone types: open-back vs closed-back
- Monitoring levels and reference tones
- Acoustic treatment: bass traps, panels
- Practical room analysis and adjustments

### Day 6: Digital Audio Workstations and Recording

- DAW overview: tracks, timeline, mixer
- Recording setup: input selection, monitoring
- Editing: cut, trim, crossfade
- Effects plugins: reverb, delay, compression
- Automation: volume, pan, effects

- Export settings: sample rate, bit depth, file format

#### **Day 7: Broadcast Communication Systems**

- Intercom systems: types and configurations
- IFB systems: talent monitoring and cues
- Talkback: control room to studio communication
- Phone-in systems: hybrids, caller management
- Communication protocols for live broadcasts
- Troubleshooting common communication issues

#### **Day 8: Live Broadcast Production**

- Live broadcast chain: microphones, console, processor, transmitter
- Real-time mixing techniques
- Managing remote feeds: codecs, latency
- Live processing: compression, limiting, EQ
- Emergency procedures: backup equipment, failover
- Practical live broadcast simulation

#### **Day 9: Studio Lighting and Visual Equipment**

- Lighting types: key, fill, backlight
- Three-point lighting setup
- Camera basics: lenses, focus, exposure
- Video switchers: transitions, effects
- Chroma key: green screen setup and lighting
- Audio-visual integration: timecode, sync

#### **Day 10: Recording and Playback Systems**

- Digital recorders: formats, media types
- Playback systems: CD, digital audio players
- Media management: file organisation, backup
- Automation systems: playout schedules
- Timecode: SMPTE, sync with video
- Troubleshooting: dropouts, sync errors

#### **Day 11: Advanced Mixing and Post-Production**

- Advanced mixing: automation, subgroups, parallel processing
- Multi-track editing: comping, time alignment
- Advanced effects: multiband compression, reverbs
- Mastering for broadcast: loudness standards (LUFS)
- Final mix preparation: stems, formats
- Practical post-production project

#### **Day 12: Integration, Assessment, and Final Project**

- Full studio integration: audio, video, communication
- Broadcast simulation: news, interview, music show
- System troubleshooting: signal flow analysis
- Final assessment: practical operation test
- Review of key concepts and best practices
- Course wrap-up and feedback

## 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 **15 NQF credits** at **NQF Level 5**.

## PRICING (PER DELEGATE, EX-VAT)

| Delegates | Training Method      | Price per Delegate | Total       |
|-----------|----------------------|--------------------|-------------|
| 1         | Online               | R 43,000.00        | R 43,000.00 |
| 1         | In-House             | R 56,000.00        | R 56,000.00 |
| 1         | On-Campus (Pretoria) | R 64,600.00        | R 64,600.00 |

## UPCOMING SESSIONS

| Start       | End         | Method    | Venue                   |
|-------------|-------------|-----------|-------------------------|
| 10 Aug 2026 | 25 Aug 2026 | On-Campus | Durban, South Africa    |
| 10 Aug 2026 | 25 Aug 2026 | On-Campus | Mauritius               |
| 11 Aug 2026 | 26 Aug 2026 | On-Campus | Cape Town, South Africa |
| 12 Aug 2026 | 27 Aug 2026 | On-Campus | Dubai, UAE              |
| 13 Aug 2026 | 28 Aug 2026 | On-Campus | Pretoria, South Africa  |
| 14 Aug 2026 | 31 Aug 2026 | On-Campus | Abu Dhabi, UAE          |
| 17 Aug 2026 | 01 Sep 2026 | On-Campus | Shenzhen, China         |
| 18 Aug 2026 | 02 Sep 2026 | On-Campus | Dubai, 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](http://www.aaticd.co.za), open the page for this course (Unit Standard 117563) 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.

**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](mailto:apply@aatid.co.za) · [www.aatid.co.za](http://www.aatid.co.za)