



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

COURSE BROCHURE

Gaming Machine Fault Finding and Repair

Services / Hospitality, Tourism, Travel, Gaming and Leisure

Unit Standard 258064 · NQF Level 4 · 8 Credits · 5 Days

COURSE OVERVIEW

This course equips learners with the skills to diagnose, repair, and maintain gaming machines and related equipment. It covers systematic fault-finding techniques, component-level repairs, and preventive servicing to ensure operational reliability and compliance with industry standards.

Category	Services
Subfield	Hospitality, Tourism, Travel, Gaming and Leisure
Unit Standard	258064
Accreditation	SAQA Accredited · NQF Level 4 · 8 Credits
Duration	5 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply systematic fault-finding procedures to identify and isolate faults in gaming machine systems.
- Demonstrate repair and replacement techniques for faulty components, including electronic and mechanical parts.
- Implement preventive maintenance schedules to minimize downtime and extend equipment lifespan.
- Analyze circuit diagrams and technical manuals to diagnose complex faults.
- Evaluate safety protocols and ensure compliance with relevant health and safety regulations during repairs.
- Document fault-finding and repair processes for quality assurance and reporting.

WHO SHOULD ATTEND

- Technicians, electricians, and technical support staff responsible for the maintenance and repair of gaming machines in casinos, gaming venues, or equipment supply companies.

COURSE OUTLINE

Day 1: Introduction to Gaming Machine Systems and Safety

- Overview of SA gaming regulations and SAQA unit standard 258064
- Health and safety: lockout/tagout, ESD, fire suppression
- Gaming machine architecture: cabinet, power supply, mainboard, display, I/O
- Voltage rails, fuses, and protection circuits
- Coin / ticket handling systems basics
- Error code categories and logging
- Tools and test equipment overview
- Documentation and service manuals

Day 2: Power Supply and Display Diagnostics

- Power supply topologies: linear vs. SMPS
- Measuring AC ripple and load regulation
- Display technologies: LCD, LED, touchscreen
- Backlight inverters and driver boards
- Common failure modes: bulging caps, blown fuses, dry joints
- Systematic voltage checking procedure
- Replacing a power supply unit safely
- Hands-on: voltage measurements on a test rig

Day 3: Logic Board, Memory, and Communication Faults

- Logic board architecture and chipset
- POST process and diagnostic LEDs
- Memory errors: symptoms and testing
- Communication protocols: RS232, USB, TCP/IP
- Game software loading and validation
- BIOS settings and configuration
- EEPROM and NVRAM corruption
- Hands-on: swapping RAM and clearing CMOS

Day 4: Peripheral Diagnostics – Bill Acceptors, Printers, and Buttons

- Bill acceptor mechanics and optics
- Printer mechanisms: thermal, impact, ticket cutter
- Switch matrix scanning and debouncing
- Touchscreen technologies: resistive, capacitive
- Sensor alignment and calibration
- Firmware updates for peripherals
- Hands-on: cleaning and replacing a bill acceptor

Day 5: Advanced Troubleshooting, System Integration, and Final Assessment

- Intermittent fault hunting: thermal, vibration, dry joints
- Logic analyser basics and signal tracing
- Reading schematic diagrams and datasheets
- Firmware corruption recovery
- System integration testing
- Preventive maintenance scheduling

- Assessment preparation: theory and practical
- Final practical exam: diagnose and repair a seeded fault

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 **8 NQF credits** at **NQF Level 4**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 23,000.00	R 23,000.00
1	In-House	R 29,900.00	R 29,900.00
1	On-Campus (Pretoria)	R 34,500.00	R 34,500.00

UPCOMING SESSIONS

Start	End	Method	Venue
10 Aug 2026	14 Aug 2026	On-Campus	Durban, South Africa
10 Aug 2026	14 Aug 2026	On-Campus	Abu Dhabi, UAE
10 Aug 2026	14 Aug 2026	On-Campus	Pretoria, South Africa
10 Aug 2026	14 Aug 2026	On-Campus	Dubai, UAE
10 Aug 2026	14 Aug 2026	On-Campus	Cape Town, South Africa
10 Aug 2026	14 Aug 2026	On-Campus	Mauritius
17 Aug 2026	21 Aug 2026	On-Campus	Dubai, UAE
17 Aug 2026	21 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, open the page for this course (Unit Standard 258064) 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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