



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

Maintain Optical And Non Optical Firearm Sighting Systems Training

Law, Military Science and Security / Safety in Society

Unit Standard 119776 · NQF Level 4 · 18 Credits · 15 Days

COURSE OVERVIEW

This course equips learners with the knowledge and practical skills to maintain optical and non-optical firearm sighting systems. It covers inspection, cleaning, adjustment, and basic troubleshooting of sights to ensure accuracy and safety. The course is aligned with SAQA Unit Standard 119776 and is essential for firearm handlers in security, sport shooting, and law enforcement.

Category	Law, Military Science and Security
Subfield	Safety in Society
Unit Standard	119776
Accreditation	SAQA Accredited · NQF Level 4 · 18 Credits
Duration	15 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Demonstrate knowledge of optical and non-optical sighting systems and their components.
- Apply correct procedures for inspecting, cleaning, and maintaining firearm sights.
- Adjust and zero optical and non-optical sights to ensure accuracy.
- Analyze common faults and malfunctions in sighting systems and implement corrective actions.
- Evaluate the condition of sighting systems and recommend appropriate maintenance schedules.
- Implement safety protocols during maintenance activities.

WHO SHOULD ATTEND

- This course is designed for firearm owners, security personnel, sport shooters, and anyone responsible for maintaining firearm sighting systems in a professional or recreational context.

COURSE OUTLINE

Day 1: Introduction to Firearm Sighting Systems

- Overview of firearm sighting systems
- Optical sights: red dot, holographic, telescopic
- Non-optical sights: iron sights, aperture sights
- Safety procedures for handling firearms and optics
- Introduction to maintenance tools and materials

Day 2: Fundamentals of Optics and Light

- Physics of light: refraction, reflection, magnification
- Optical coatings: anti-reflective, hydrophobic
- Common aberrations: chromatic, spherical, coma
- Proper lens cleaning methods and solutions
- Hands-on: inspecting optical lenses

Day 3: Non-Optical Sighting Systems: Design and Function

- Types of iron sights: open, notch, post
- Aperture (peep) sights: ghost ring, target
- Sight radius and alignment principles
- Common problems: misalignment, wear, damage
- Practical: inspecting and measuring sight components

Day 4: Optical Sighting Systems: Types and Components

- Rifle scopes: fixed vs. variable magnification
- Red dot sights: tube vs. open reflex
- Holographic weapon sights
- Reticle types: crosshair, mil-dot, BDC
- Components: objective lens, ocular lens, erector tube
- Eye relief, parallax adjustment

Day 5: Cleaning and Maintenance of Non-Optical Sights

- Cleaning tools: brushes, patches, solvents
- Lubrication: oils, greases, application points
- Inspection: visual and tactile checks
- Tightening screws and set screws
- Practical: cleaning and inspecting iron sights

Day 6: Cleaning and Maintenance of Optical Sights

- Lens cleaning: blower, brush, solution, cloth
- Body cleaning: wipes, mild solvents
- Seal inspection: O-rings, gaskets
- Nitrogen purge: checking for leaks
- Common issues: fogging, scratches, delamination
- Practical: cleaning a rifle scope

Day 7: Mounting and Alignment Procedures

- Mounting hardware: Picatinny, Weaver, dovetail
- Ring selection and lapping

- Bore sighting: optical and laser methods
- Collimators and alignment fixtures
- Torque wrenches: proper use and settings
- Thread locker: types and application

Day 8: Zeroing and Calibration

- Zeroing fundamentals: mechanical vs. optical zero
- Range setup: target distance, safety
- Adjustment increments: MOA, MIL, clicks
- Shooting groups and making corrections
- Record keeping: logbooks, data sheets
- Practical: zeroing a rifle with scope

Day 9: Troubleshooting Common Sight Issues

- Loss of zero: mount slippage, base movement
- Blurry image: diopter adjustment, lens issues
- Inconsistent adjustments: worn turrets, backlash
- Reticle canting: alignment with vertical
- Moisture and fogging: seal failure
- Practical: diagnosing a non-functioning scope

Day 10: Advanced Maintenance: Disassembly and Reassembly

- Disassembly of iron sights: drift pins, screws
- Internal inspection of scopes: erector tube, springs
- Cleaning internal surfaces
- Reassembly: alignment, torque, thread locker
- Function check after reassembly
- Safety: avoid damaging delicate parts

Day 11: Environmental Considerations and Storage

- Temperature effects: thermal expansion, fogging
- Humidity: corrosion, mold on lenses
- Altitude: pressure changes, point of impact shift
- Storage: cases, silica gel, climate control
- Recoil management: mount integrity, spring fatigue
- Practical: preparing sights for long-term storage

Day 12: Testing and Verification of Sight Performance

- Tracking test: box test, tall target test
- Repeatability: return to zero after adjustments
- Parallax test: head movement check
- Borescope inspection of barrel and mount
- Torque verification
- Practical: testing a serviced sight

Day 13: Legal, Safety, and Quality Standards

- SAQA unit standard 119776 requirements
- SABS standards for optical devices
- Firearm safety regulations (FCA)

- Quality control: checklists, sign-offs
- Documentation: service reports, logbooks
- Liability and risk management

Day 14: Practical Integration and Scenario-Based Training

- Scenario: multiple sight failures on different firearms
- Diagnostic process: inspection, testing, repair
- Prioritization: critical vs. minor issues
- Team collaboration and communication
- Final inspection and sign-off
- Practical: complete maintenance on 3 different sights

Day 15: Assessment and Course Review

- Written assessment: multiple choice, short answer
- Practical assessment: maintain optical and non-optical sights
- Remediation if needed
- Course review: Q&A, best practices
- Certification process
- Closing remarks and resources

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 **18 NQF credits** at **NQF Level 4**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 48,600.00	R 48,600.00
1	In-House	R 63,200.00	R 63,200.00
1	On-Campus (Pretoria)	R 72,900.00	R 72,900.00

UPCOMING SESSIONS

Start	End	Method	Venue
10 Aug 2026	28 Aug 2026	On-Campus	Pretoria, South Africa
11 Aug 2026	31 Aug 2026	On-Campus	Abu Dhabi, UAE
12 Aug 2026	01 Sep 2026	On-Campus	Durban, South Africa
12 Aug 2026	01 Sep 2026	On-Campus	Mauritius
13 Aug 2026	02 Sep 2026	On-Campus	Cape Town, South Africa
14 Aug 2026	03 Sep 2026	On-Campus	Dubai, UAE
17 Aug 2026	04 Sep 2026	On-Campus	Abu Dhabi, UAE
18 Aug 2026	07 Sep 2026	On-Campus	Durban, 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 119776) 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