



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

GIS Fundamentals for Military Operations

Law, Military Science and Security / Sovereignty of the State

Unit Standard 254482 · NQF Level 4 · 10 Credits · 7 Days

COURSE OVERVIEW

This course equips military personnel with foundational knowledge and practical skills in Geographic Information Systems (GIS) within a military context. Learners will understand how GIS supports operational planning, terrain analysis, and situational awareness. The course bridges geospatial theory with real-world military applications.

Category	Law, Military Science and Security
Subfield	Sovereignty of the State
Unit Standard	254482
Accreditation	SAQA Accredited · NQF Level 4 · 10 Credits
Duration	7 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Demonstrate an understanding of GIS concepts and their relevance to military operations.
- Apply GIS tools to analyse spatial data for mission planning and terrain evaluation.
- Interpret geospatial data sources, including satellite imagery and topographic maps.
- Evaluate the role of GIS in command and control, logistics, and intelligence.
- Implement basic GIS workflows to produce operational maps and reports.
- Analyze the limitations and ethical considerations of GIS in military contexts.

WHO SHOULD ATTEND

- This course is designed for military officers, intelligence analysts, and support staff who require a working understanding of GIS for operational decision-making.
- It is also suitable for civilian personnel in defence and security roles.

COURSE OUTLINE

Day 1: Introduction to GIS and Spatial Concepts

- What is GIS? Overview and military applications
- Spatial data: raster vs vector
- Coordinate systems and map projections
- GIS software overview (QGIS, ArcGIS)
- Introduction to geospatial intelligence (GEOINT)

Day 2: Data Acquisition and Management

- Data sources: satellite imagery, UAV, GPS, field surveys
- Data quality, accuracy, and metadata standards
- File formats: Shapefile, GeoJSON, KML, GeoTIFF
- Data management in GIS software
- Basic data editing and cleaning

Day 3: Spatial Analysis Fundamentals

- Spatial queries: select by location, attribute
- Buffer analysis for threat zones
- Overlay analysis: intersect, union, clip
- Terrain analysis: slope, aspect, viewshed
- Introduction to spatial statistics

Day 4: Map Design and Cartography for Military Operations

- Cartographic principles for military maps
- Symbolology: MIL-STD-2525, APP-6
- Map elements: scale, legend, grid, north arrow
- Creating tactical situation overlays
- Exporting maps for field use

Day 5: Advanced Spatial Analysis and Modeling

- Network analysis: shortest path, service areas
- Least-cost path analysis for movement
- Line-of-sight and viewshed analysis
- Multi-criteria decision analysis for site selection
- Introduction to spatial modeling

Day 6: Remote Sensing and Imagery Analysis

- Remote sensing basics: resolution, bands
- Image interpretation keys
- Image enhancement: contrast, filtering
- Supervised and unsupervised classification
- Change detection techniques

Day 7: Integration and Operational Planning

- GIS in the military decision-making process (MDMP)
- Geospatial support planning
- Collaborative GIS: web services, shared databases
- Briefing geospatial intelligence

- Course review and assessment

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 **10 NQF credits** at **NQF Level 4**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 28,200.00	R 28,200.00
1	In-House	R 36,700.00	R 36,700.00
1	On-Campus (Pretoria)	R 42,300.00	R 42,300.00

UPCOMING SESSIONS

Start	End	Method	Venue
10 Aug 2026	18 Aug 2026	On-Campus	Dubai, UAE
11 Aug 2026	19 Aug 2026	On-Campus	Pretoria, South Africa
12 Aug 2026	20 Aug 2026	On-Campus	Abu Dhabi, UAE
13 Aug 2026	21 Aug 2026	On-Campus	Durban, South Africa
13 Aug 2026	21 Aug 2026	On-Campus	Mauritius
14 Aug 2026	24 Aug 2026	On-Campus	Cape Town, South Africa
17 Aug 2026	25 Aug 2026	On-Campus	Pretoria, South Africa
18 Aug 2026	26 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 254482) 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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