



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

Demonstrate Understanding Of The Principles Of Navigating An Aircraft Training

Law, Military Science and Security / Safety in Society

Unit Standard 120058 · NQF Level 5 · 7 Credits · 4 Days

COURSE OVERVIEW

This course equips learners with foundational knowledge of aircraft navigation principles, including map reading, compass use, and flight planning. It is designed to meet the requirements of the SAQA Unit Standard 120058 and to prepare learners for further study in aviation.

Category	Law, Military Science and Security
Subfield	Safety in Society
Unit Standard	120058
Accreditation	SAQA Accredited · NQF Level 5 · 7 Credits
Duration	4 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Demonstrate understanding of the basic principles of navigation, including the earth's shape and coordinate systems.
- Apply techniques for reading aeronautical charts and interpreting navigational symbols.
- Analyze the use of magnetic compass and its errors in aircraft navigation.
- Evaluate the principles of dead reckoning and its application in flight planning.
- Demonstrate the ability to calculate basic navigational problems involving time, distance, and speed.
- Implement safety considerations related to navigation, including contingency planning.

WHO SHOULD ATTEND

- Aspiring pilots, flight dispatchers, and aviation enthusiasts who need to understand the basic principles of aircraft navigation.

COURSE OUTLINE

Day 1: Foundations of Navigation

- Introduction to navigation: history and importance.
- Earth's geography: latitude, longitude, great circles, and rhumb lines.
- Navigation instruments: compass, altimeter, airspeed indicator, and GPS basics.
- Magnetism: variation, deviation, and compass errors.
- Time and navigation: UTC, time zones, and sunrise/sunset calculations.
- Aeronautical charts: types, scales, and symbols.
- Practical exercise: reading charts and plotting coordinates.

Day 2: Flight Planning and Dead Reckoning

- Dead reckoning: heading, groundspeed, and distance calculations.
- Wind effects: triangle of velocities, drift, and wind correction angle.
- Flight planning: route selection, waypoints, and checkpoints.
- Fuel planning: consumption rates, reserves, and alternate airports.
- Weather for navigation: METARs, TAFs, winds aloft, and SIGMETs.
- Navigation logs: completing and using during flight.
- Practical exercise: plan a cross-country flight.

Day 3: Radio Navigation and Instruments

- VOR: principles, frequencies, radials, and tracking.
- NDB: ADF operation, bearings, and homing.
- DME: distance measurement and speed calculations.
- GPS and RNAV: satellite navigation, waypoints, and routes.
- Integrated navigation: combining multiple sources.
- Instrument flight rules (IFR) basics vs. visual flight rules (VFR).
- Practical exercise: simulate VOR tracking and NDB interception.

Day 4: Advanced Navigation and Practical Integration

- Lost procedures: pinpointing position and re-establishing navigation.
- Emergency navigation: using basic instruments and landmarks.
- Human factors: situational awareness, fatigue, and decision-making.
- Regulatory overview: CARs, airspace classifications, and flight planning requirements.
- Performance-based navigation (PBN): RNP and required accuracy.
- Practical integration: full simulated cross-country flight using all learned techniques.
- Assessment: written test and practical demonstration.

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 **7 NQF credits** at **NQF Level 5**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 21,500.00	R 21,500.00
1	In-House	R 27,900.00	R 27,900.00
1	On-Campus (Pretoria)	R 32,300.00	R 32,300.00

UPCOMING SESSIONS

Start	End	Method	Venue
10 Aug 2026	13 Aug 2026	On-Campus	Durban, South Africa
10 Aug 2026	13 Aug 2026	On-Campus	Abu Dhabi, UAE
10 Aug 2026	13 Aug 2026	On-Campus	Pretoria, South Africa
10 Aug 2026	13 Aug 2026	On-Campus	Dubai, UAE
10 Aug 2026	13 Aug 2026	On-Campus	Cape Town, South Africa
10 Aug 2026	13 Aug 2026	On-Campus	Mauritius
18 Aug 2026	21 Aug 2026	On-Campus	Dubai, UAE
18 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 120058) 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