



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

Interpret Meteorology For Aviation Training

Law, Military Science and Security / Safety in Society

Unit Standard 120042 · NQF Level 5 · 7 Credits · 4 Days

COURSE OVERVIEW

This course equips aviation professionals with the skills to interpret meteorological information for safe flight planning and operations. Participants will learn to analyze weather reports, charts, and forecasts to make informed decisions that enhance flight safety and efficiency.

Category	Law, Military Science and Security
Subfield	Safety in Society
Unit Standard	120042
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

- Interpret aviation meteorological reports and charts to assess weather conditions.
- Apply knowledge of atmospheric phenomena to predict weather impacts on flight operations.
- Analyze weather forecasts and warnings to make informed flight planning decisions.
- Evaluate meteorological data sources for accuracy and relevance to aviation.
- Demonstrate the ability to communicate weather-related risks to flight crew and operations.
- Implement weather avoidance strategies based on meteorological interpretation.

WHO SHOULD ATTEND

- Pilots, flight dispatchers, air traffic controllers, and aviation operations personnel who require meteorological interpretation skills for their roles.

COURSE OUTLINE

Day 1: Fundamental Meteorological Principles

- The atmosphere: composition, layers, and standard atmosphere.
- Atmospheric pressure: measurement, pressure systems, and altimetry.
- Temperature: lapse rates, inversions, and effects on aircraft performance.
- Moisture: humidity, dew point, and condensation.
- Cloud classification: cumuliform, stratiform, and cirriform.
- Surface winds: pressure gradient force, Coriolis effect, and friction.
- Introduction to air masses and fronts.

Day 2: Weather Phenomena and Hazards

- Air masses: source regions, modifications, and classification.
- Fronts: cold, warm, occluded, and stationary fronts.
- Thunderstorms: life cycle, types, and aviation hazards.
- Turbulence: clear-air, mechanical, and convective turbulence.
- Aircraft icing: types, conditions, and effects on performance.
- Fog: radiation, advection, and upslope fog.
- Wind shear: causes and detection.

Day 3: Weather Observation and Forecasting

- METAR: decoding routine and special reports.
- TAF: terminal aerodrome forecasts and trend forecasts.
- SIGMET and AIRMET: significant weather advisories.
- Surface analysis charts: isobars, fronts, and pressure systems.
- Upper-air charts: constant pressure levels and wind patterns.
- Satellite imagery: visible, infrared, and water vapour channels.
- Weather radar: reflectivity, echo types, and limitations.

Day 4: Practical Application and Decision Making

- Pre-flight planning: route weather, alternate aerodromes, fuel requirements.
- In-flight weather updates: PIREPs, ATIS, and VOLMET.
- Decision-making models: go/no-go, diversion, and holding.
- Case studies: weather-related incidents and accident analysis.
- South African Weather Service: products and dissemination.
- Practical exercises: interpreting live weather data and forecasts.
- Assessment: scenario-based questions and METAR/TAF decoding.

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
11 Aug 2026	14 Aug 2026	On-Campus	Durban, South Africa
11 Aug 2026	14 Aug 2026	On-Campus	Abu Dhabi, UAE
11 Aug 2026	14 Aug 2026	On-Campus	Pretoria, South Africa
11 Aug 2026	14 Aug 2026	On-Campus	Dubai, UAE
11 Aug 2026	14 Aug 2026	On-Campus	Cape Town, South Africa
11 Aug 2026	14 Aug 2026	On-Campus	Mauritius
17 Aug 2026	20 Aug 2026	On-Campus	Dubai, UAE
17 Aug 2026	20 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 120042) 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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