



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

Flight Environment Management for Aviation Professionals

Physical, Mathematical, Computer and Life Sciences / Physical Sciences

Unit Standard 243335 · NQF Level 5 · 20 Credits · 17 Days

COURSE OVERVIEW

This course equips aviation professionals with the knowledge and skills to manage the flight environment effectively, ensuring safety and compliance with regulatory standards. Participants will learn to assess environmental factors, implement control measures, and respond to emergencies, fostering a culture of safety in aviation operations.

Category	Physical, Mathematical, Computer and Life Sciences
Subfield	Physical Sciences
Unit Standard	243335
Accreditation	SAQA Accredited · NQF Level 5 · 20 Credits
Duration	17 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Identify and assess environmental factors affecting flight safety, including weather, terrain, and airspace constraints.
- Apply regulatory requirements and standard operating procedures to manage the flight environment.
- Evaluate risks and implement control measures to mitigate environmental hazards.
- Demonstrate effective communication and coordination with air traffic control and ground services.
- Analyze emergency scenarios and execute appropriate response actions.
- Implement continuous monitoring and improvement strategies for flight environment management.

WHO SHOULD ATTEND

- This course is designed for pilots, flight operations officers, cabin crew, and aviation safety managers seeking to enhance their competency in managing the flight environment.

COURSE OUTLINE

Day 1: Introduction to Flight Environment Management

- Overview of flight environment management
- Components of the aviation environment: air, land, water, and noise
- International and national regulatory bodies (ICAO, SACAA)
- Environmental impact of aviation operations
- Introduction to environmental management systems (EMS)
- Roles and responsibilities of aviation professionals

Day 2: Aviation Environmental Regulations and Compliance

- ICAO Annex 16 (Environmental Protection)
- South African Civil Aviation Regulations (CAR)
- National Environmental Management Act (NEMA)
- Air quality and emissions standards
- Noise certification and land-use planning
- Compliance monitoring and reporting

Day 3: Aircraft Emissions and Air Quality Management

- Aircraft engine emissions: CO₂, NO_x, SO_x, particulates
- Global warming potential and carbon footprint
- Air quality dispersion modeling
- Emission reduction technologies
- Alternative fuels and sustainable aviation fuels (SAF)
- Airport air quality management plans

Day 4: Noise Management and Abatement

- Fundamentals of aircraft noise
- Noise metrics: L_{den}, SEL, NEF
- Noise monitoring systems
- Noise abatement operational procedures (NADP)
- Land-use planning and noise zoning
- Community engagement and noise complaints

Day 5: Water Resources and Waste Management in Aviation

- Stormwater runoff and de-icing fluid management
- Wastewater treatment and discharge standards
- Hazardous waste handling and disposal
- Recycling and waste minimization programs
- Spill prevention and response procedures
- Case studies on water and waste incidents

Day 6: Wildlife Hazard Management

- Wildlife strike statistics and risk assessment
- Bird and mammal species hazardous to aviation
- Habitat management: vegetation, water, food sources
- Deterrent methods: pyrotechnics, falconry, radar
- Wildlife hazard management plans (WHMP)

- Reporting and data analysis

Day 7: Environmental Management Systems (EMS)

- Introduction to ISO 14001 and EMS framework
- Environmental policy development
- Identification of environmental aspects and impacts
- Legal and other requirements
- Objectives, targets, and programs
- EMS documentation and records

Day 8: Environmental Auditing and Performance Monitoring

- Types of environmental audits (compliance, EMS, operational)
- Audit planning and checklists
- Evidence gathering and interviewing techniques
- Performance indicators and benchmarking
- Non-conformance and corrective action procedures
- Audit reporting and follow-up

Day 9: Sustainable Aviation and Climate Change

- Aviation and global warming: science and policy
- Carbon offsetting and CORSIA
- Sustainable aviation fuels (SAF) production and use
- Electric and hybrid aircraft developments
- Operational efficiency improvements
- Carbon management plans

Day 10: Environmental Risk Assessment and Management

- Hazard identification and risk analysis techniques
- Environmental risk matrices
- Risk assessment for fuel handling, de-icing, etc.
- Emergency preparedness and response
- Business continuity and environmental incidents
- Case studies on environmental risk events

Day 11: Green Airport Design and Operations

- Sustainable airport master planning
- Energy-efficient terminal design and lighting
- Renewable energy sources: solar, wind, geothermal
- Ground support equipment electrification
- Water conservation and rainwater harvesting
- Green procurement and supply chain

Day 12: Environmental Communication and Stakeholder Engagement

- Stakeholder identification and analysis
- Communication channels and tools
- Community outreach and public meetings
- Handling noise and air quality complaints
- Environmental reporting and sustainability disclosures
- Crisis communication for environmental incidents

Day 13: Environmental Law and Enforcement in South Africa

- National Environmental Management Act (NEMA)
- Environmental Impact Assessment (EIA) regulations
- Air Quality Act and noise regulations
- Waste Act and water legislation
- Enforcement agencies and procedures
- Case law and legal precedents in aviation

Day 14: Environmental Management in Airline Operations

- Fuel-efficient flight planning and operations
- Weight reduction and aircraft optimization
- Single-engine taxi and reduced thrust takeoff
- Cabin waste management and recycling
- Sustainable catering and procurement
- Airline environmental management systems

Day 15: Emergency Response and Environmental Incidents

- Types of environmental emergencies in aviation
- Spill response procedures and equipment
- Hazardous material handling and containment
- Incident command systems
- Regulatory reporting requirements
- Lessons learned and continuous improvement

Day 16: Integrated Environmental Management Planning

- Components of an environmental management plan
- Integration with safety and quality management
- Setting measurable environmental targets
- Resource allocation and budgeting
- Implementation timeline and responsibilities
- Plan review and update processes

Day 17: Course Review, Assessment, and Action Planning

- Review of key concepts and regulations
- Case study analysis and group discussion
- Final written assessment
- Action plan template and goal setting
- Peer feedback and networking
- Course evaluation and certification

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 **20 NQF credits** at **NQF Level 5**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 56,500.00	R 56,500.00
1	In-House	R 73,400.00	R 73,400.00
1	On-Campus (Pretoria)	R 84,700.00	R 84,700.00

UPCOMING SESSIONS

No sessions are currently scheduled. Please contact us to arrange a session at a time and location that suits your team.

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 243335) 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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