

Air Navigation Services & Navigation Course Details

Department: Land, Agriculture and Food Sciences

Presented by Magna Skills Development Institute

Date Created: 10-May-2025

Training Coordinator: Denis Wunganayi



CORPORATE TRAINING
Agency

OUR SERVICES :

- Search Engine Optimization
- Analytics and Data Analysis
- Pay-Per-Click Advertising
- Social Media Marketing

 Our Website
www.magnaskills.com

 **MAGNA SKILLS**
www.magnaskills.com



Course Summary

The Air Navigation Services & Navigation course by Magna Skills offers a comprehensive exploration of air navigation systems, services, and techniques crucial for safe and efficient air travel. This course covers essential topics such as air traffic control procedures, navigation aids, airspace management, and the latest advancements in navigation technology, providing participants with the knowledge and skills necessary for successful navigation in aviation.

Course Objectives

- **Understanding Air Navigation Systems:** Gain a comprehensive understanding of air navigation systems, including the principles of radar, satellite navigation, and communication systems used in aviation.
- **Air Traffic Control Procedures:** Learn about air traffic control (ATC) procedures, including clearance delivery, ground control, tower control, and en-route control, to ensure safe and efficient air traffic management.
- **Navigation Aids and Instruments:** Explore different types of navigation aids and instruments, such as VOR (VHF omnidirectional range), NDB (non-directional beacon), GPS (global positioning system), and inertial navigation systems, to navigate aircraft accurately.
- **Airspace Management:** Understand the principles of airspace management, including classification of airspace, air traffic flow management (ATFM), and coordination with air traffic control authorities.
- **Navigation Technology and Innovations:** Stay updated on the latest advancements in navigation technology, such as RNAV (area navigation), RNP (required navigation performance), and ADS-B (automatic dependent surveillance-broadcast), to enhance navigation efficiency and safety.
-

Course Outline

Module 1: Introduction to Air Navigation

- Overview of air navigation principles and systems
- Historical development of air navigation technologies

Module 2: Air Traffic Control Procedures

- Roles and responsibilities of air traffic controllers
- ATC clearances and communications procedures

Module 3: Navigation Aids and Instruments

- Principles of VOR, NDB, and GPS navigation
- Instrument flight rules (IFR) navigation techniques

Module 4: Radar and Surveillance Systems

- Basics of radar operation and surveillance
- Secondary surveillance radar (SSR) and ADS-B technology

Module 5: Airspace Management and Classification

- Classification of airspace (e.g., controlled, uncontrolled)
- Air traffic flow management (ATFM) and capacity planning

Module 6: RNAV and RNP Navigation

- Concepts and applications of RNAV and RNP
- Performance-based navigation (PBN) requirements

Module 7: Communication and Navigation Procedures

- Standard phraseology and communication protocols
- Navigation procedures for departure, en-route, and arrival

Module 8: Navigation Safety and Risk Management

- Risk assessment and mitigation in air navigation
- Safety management systems (SMS) in aviation

Module 9: Emerging Navigation Technologies

- Next-generation navigation technologies and trends
- Integration of unmanned aerial vehicles (UAVs) in air navigation

Module 10: Case Studies and Practical Applications

- Analysis of real-world navigation scenarios
- Simulation exercises and practical navigation challenges

The Air Navigation Services & Navigation course provides participants with the knowledge and skills necessary to navigate aircraft safely and efficiently in the aviation industry. Through a blend of theoretical learning, practical exercises, case studies, and interactive discussions, participants will gain a deep understanding of air navigation systems, procedures, and technologies, empowering them to contribute effectively to the field of aviation navigation.



Company Overview

Who We Are: Magna Skills is a premier training and capacity-building organization specializing in professional development for government institutions, NGOs, and the private sector.

Our Mission: To provide world-class training solutions that equip professionals with the expertise needed to excel in their careers and contribute meaningfully to their organizations.

Our Vision: To be the leading provider of professional training and development across Africa, fostering excellence, innovation, and capacity-building in public and private sectors.

Core Values

- **Excellence** – Delivering high-quality training tailored to meet the evolving needs of professionals.
- **Integrity** – Upholding the highest ethical standards in all our engagements.
- **Innovation** – Embracing new technologies and methodologies to enhance learning experiences.
- **Customer-Centric Approach** – Ensuring client satisfaction by providing relevant, practical, and impactful training.
- **Collaboration** – Partnering with industry experts and institutions to provide the best learning opportunities.

Our Training Methodology

We use a blended learning approach that includes instructor-led training, case studies, workshops, and post-training support.

Why Choose Magna Skills?

- Experienced Trainers
- Customized Training Solutions
- Interactive Learning
- Global Recognition
- Proven Track Record

Request for Training Form

Complete the form and share with Magna Skills Support Team on email info@magnaskills.com or Send Whatsapp on: +27630079022

Approval & Authorization	
Applicant Details	Course Details
First Name:	Course Name:
Last Name:	Training Venue:
Mobile:	Month:
Email:	Training Method: Online[____] Face to Face [____]
Company Name:	Duration:
Country:	Number of Staff Members:

By signing this agreement, both parties confirm their commitment to the terms outlined in this proposal.