Training Course on Managing Airport Operations During Construction

Professional Development Training Course Outline

Category	Aviation and Airport Management	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

The rapid global growth in air travel necessitates continuous **airport infrastructure development** and **expansion projects**. However, these critical **construction endeavors** often occur within active airport environments, posing significant challenges to **operational continuity**, **safety**, and **efficiency**. Training Course on Managing Airport Operations During Construction is meticulously designed to equip airport professionals with the essential knowledge, strategies, and best practices to **seamlessly integrate construction activities** while maintaining **uninterrupted airport operations** and upholding the highest **safety standards**.

Navigating the complexities of **airport construction projects** requires a proactive and integrated approach. From **airside safety protocols** and **air traffic management coordination** to **stakeholder engagement** and **risk mitigation**, this course will delve into the critical aspects of managing concurrent operations. Participants will gain insights into **innovative methodologies**, **regulatory compliance**, and **crisis management** to ensure successful project delivery without compromising the passenger experience or **airport security**.

Programme Curriculum

Training Course on Managing Airport Operations During Construction

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5 days

Course Objectives

1. **Develop comprehensive operational plans** for airport construction projects, emphasizing **safety-critical areas** and **risk assessments**.
2. Implement effective **airside safety protocols** and **runway safety programs** during concurrent construction.
3. Master **air traffic management (ATM) coordination** techniques to minimize disruption and maximize air traffic flow.
4. Apply **regulatory compliance** with international (ICAO) and national aviation authorities for construction activities.
5. Enhance **stakeholder communication** and collaboration, including airlines, air traffic control, ground handlers, and contractors.
6. Formulate robust **emergency response plans** and **crisis management protocols** for construction-related incidents.
7. Integrate **sustainable construction practices** and **environmental impact mitigation** within operational frameworks.
8. Utilize **technology solutions** for real-time monitoring, communication, and operational oversight during construction.
9. Optimize **landside and terminal operations** to maintain passenger flow and service quality amidst construction.
10. Conduct thorough **hazard identification and risk mitigation strategies** specific to active construction zones.
11. Implement **contractor safety management programs (CSMP)** and ensure adherence to **construction safety standards**.
12. Develop strategies for **maintaining airport security** and access control in dynamic construction environments.
13. Analyze and learn from **global airport construction case studies** to derive best practices and avoid common pitfalls.

Organizational Benefits

- Minimize disruptions, delays, and financial losses due to construction activities.
- Reduce incidents and accidents by proactively managing risks in active construction zones.
- Ensure adherence to national and international aviation regulations and standards.
- Efficiently allocate personnel, equipment, and time during complex projects.
- Foster better communication and collaboration with all airport partners.
- Deliver construction projects on time and within budget, with minimal operational impact.
- Maintain a seamless passenger experience despite ongoing airport development.

- Equip teams to anticipate, identify, and mitigate potential operational hazards.

Target Audience

1. Airport Operations Managers and Supervisors.
2. Airport Project Managers.
3. Air Traffic Controllers and Supervisors.
4. Airport Safety and Security Personnel
5. Ground Handling Managers operations.
6. Airline Operational Staff.
7. Construction Company Project Leads and Safety Officers.
8. Civil Aviation Authority (CAA) Inspectors and Regulators.

Course Outline

Module 1: Foundations of Airport Operations & Construction Integration

- Understanding the **airport ecosystem** and critical interdependencies.
- Overview of **airport master planning** and phased development.
- Introduction to **operational impact assessments** for construction projects.
- Key **regulatory frameworks** (ICAO Annex 14, national regulations) for aerodrome works.
- **Case Study: Expansion of a Major International Hub (e.g., Singapore Changi Airport)** – Challenges in initial planning and integrating multiple construction phases.

Module 2: Airside Safety and Operational Continuity

- **Runway and taxiway management** during closures and diversions.
- Implementing **NOTAM (Notice to Airmen)** procedures and temporary markings.
- Managing **Foreign Object Debris (FOD)** prevention in construction zones.
- Aircraft movement procedures and **temporary airside vehicle control**.
- **Case Study: Heathrow Airport's Third Runway Proposal/Ongoing Works** – Focus on airside segregation and temporary infrastructure.

Module 3: Air Traffic Management (ATM) & Communication

- **Coordination protocols** between construction, ATC, and airline operations.
- Establishing clear **communication channels** and standard operating procedures (SOPs).
- Impact of construction on **airspace restrictions** and flight paths.
- Utilizing **collaborative decision-making (CDM)** for operational efficiency.
- **Case Study: Dallas/Fort Worth International Airport (DFW) Runway Reconstruction** – ATC-contractor communication strategies to minimize delays.

Module 4: Landside & Terminal Operations Management

- Maintaining passenger flow and wayfinding amidst terminal construction.
- Managing ground transportation, parking, and access points.
- Minimizing noise and disruption to passenger experience.
- Implementing temporary facilities and contingency planning for essential services.
- Case Study: Los Angeles International Airport (LAX) Modernization Program – Strategies for managing extensive landside and terminal redevelopments with ongoing operations.

Module 5: Risk Assessment & Mitigation in Construction Environments

- Hazard identification specific to airport construction (e.g., heavy equipment, excavations, material storage).
- Quantitative and qualitative risk assessment methodologies.
- Developing and implementing risk mitigation strategies and controls.
- Safety management system (SMS) integration for construction activities.
- Case Study: Jorge Chávez International Airport, Lima, Peru Expansion – Analysis of operational risks associated with simultaneous airport expansion and existing operations.

Module 6: Regulatory Compliance & Documentation

- Understanding **ICAO SARPs (Standards and Recommended Practices)** for aerodrome construction.
- National aviation authority **permitting and licensing processes**.
- Maintaining **accurate documentation** for audits and inspections.
- **Environmental regulations** and sustainable development guidelines.
- **Case Study: European Airport Compliance Framework (e.g., Amsterdam Schiphol)** – Navigating stringent environmental and operational regulations during expansion.

Module 7: Emergency Preparedness & Crisis Response

- Developing **emergency response plans (ERP)** for construction-related incidents (e.g., fires, collapses).
- Coordination with **airport rescue and firefighting (ARFF)** services.
- **Mass casualty incident (MCI)** planning in a construction context.
- **Business continuity planning** to minimize operational downtime.
- **Case Study: Incident Response at a Construction Site within an Active Airport (Hypothetical Scenario based on industry best practices)** – Simulated crisis management exercise.

Module 8: Technology & Innovation in Construction Operations

- Utilization of **Building Information Modeling (BIM)** for project visualization and coordination.
- **Geospatial technologies (GIS)** for real-time monitoring of construction progress and impact.
- **Drone technology** for site inspections and progress tracking.
- **Data analytics** for operational performance measurement and predictive analysis.
- **Case Study: Dubai International Airport (DXB) Smart Airport Initiatives** – Leveraging technology for integrated construction and operational management.

Training Methodology

This course employs a **blended learning approach** to maximize engagement and knowledge retention. Key methodologies include:

- **Interactive Lectures & Discussions:** Facilitating knowledge transfer and peer learning.
- **Case Studies & Real-World Scenarios:** Applying theoretical concepts to practical airport situations.
- **Group Exercises & Workshops:** Encouraging collaborative problem-solving and critical thinking.
- **Simulations & Role-Playing:** Practicing decision-making in dynamic operational environments.
- **Expert Guest Speakers:** Insights from industry leaders and experienced airport professionals.

- **Video Demonstrations & Visual Aids:** Enhancing understanding of complex processes.
- **Q&A Sessions:** Addressing specific challenges and clarifying concepts.
- **Practical Checklists and Templates:** Providing actionable tools for immediate application.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

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