Advanced Airport Operations and Ground Handling Training Course



16 - 20 Nov 2026

Cape town

4600 € (Per Person)

Ref: #AVI9010_268307

Course Introduction / Overview:

The global aviation industry operates on a foundation of precision, safety, and efficiency, where airport operations and ground handling form the critical backbone of every successful flight. This comprehensive training course is meticulously designed to provide an in-depth understanding of the complex ecosystem of airside and landside activities. It delves into the strategic management required to orchestrate seamless turnarounds, ensure passenger satisfaction, and maintain the highest safety standards. Drawing upon principles outlined in seminal works like "Airport Operations" by Norman J. Ashford and Robert S. Doganis, the program explores everything from passenger processing and baggage handling to ramp safety and emergency response planning. Participants will gain a holistic view of how interconnected processes contribute to overall airport performance. BIG BEN Training Center has developed this curriculum to empower aviation professionals with the knowledge and skills to navigate the dynamic challenges of modern airports, fostering a culture of operational excellence and proactive risk management in a constantly evolving technological and regulatory landscape.

Target Audience / This training course is suitable for:

- Airport Operations Managers.
- Ground Handling Supervisors and Agents.
- Airline Station Managers.
- Ramp and Airside Safety Officers.
- Aviation Security Personnel.
- Passenger Service Managers.
- Baggage Handling Supervisors.
- Airline and Airport Duty Managers.
- Civil Aviation Authority Staff.
- Aspiring Aviation Professionals.
- Logistics and Cargo Handling Staff.

Target Sectors and Industries:

- Commercial Airlines.
- Airport Authorities and Operators.
- Ground Handling Service Providers.
- Fixed-Base Operators (FBOs).
- Air Cargo and Logistics Companies.
- Aviation Consulting Firms.
- Government agencies, including Civil Aviation Authorities and Airport Security.
- Corporate Flight Departments.

Target Organizations Departments:

- Operations Department.
- Ground Services and Ramp Handling.
- Safety and Compliance Department.
- Security Department.
- Passenger Services and Customer Experience.
- Baggage Services.
- Cargo and Freight Operations.
- Emergency Planning and Response.
- Airline Station Management.

Course Offerings:

By the end of this course, the participants will have able to:

- Develop a comprehensive understanding of the airport operational environment.
- Master the core principles of efficient and safe ground handling services.
- Implement IATA standards for passenger, baggage, and ramp handling.
- Optimize aircraft turnaround processes to minimize delays and enhance on-time performance.
- Manage airside safety and security protocols effectively.
- Enhance passenger processing and customer service strategies.
- Analyze and improve baggage handling systems and reconciliation processes.
- Coordinate effectively with airlines, air traffic control, and other airport stakeholders.
- Develop robust emergency response and contingency plans for airport incidents.
- Evaluate the impact of new technologies on airport and ground operations.

Course Methodology:

The training methodology at BIG BEN Training Center is designed to be highly interactive, practical, and engaging, ensuring that participants can translate theoretical knowledge into real-world competencies. Our approach moves beyond traditional lectures to foster a dynamic learning environment. The course heavily utilizes case studies of major international airports, allowing participants to analyze successful strategies and learn from operational challenges. Group discussions and collaborative workshops will encourage the sharing of experiences and brainstorming solutions for common ground handling issues. Interactive sessions, including simulations of aircraft turnaround coordination and emergency response scenarios, will provide hands-on experience in a controlled setting. Role-playing exercises will be used to refine communication and decision-making skills critical for passenger service and crisis management. Throughout the course, our expert instructors provide continuous feedback and facilitate a learning process grounded in industry best practices, ensuring participants leave with actionable skills and a deeper strategic perspective on airport operations.

Course Agenda (Course Units):

Unit One: Foundations of Airport and Ground Operations

- Introduction to the Global Aviation Ecosystem.
- Roles of Airports, Airlines, and Ground Handlers.
- Understanding IATA Airport Handling Manual (AHM) and IATA Ground Operations Manual (IGOM).
- Regulatory Frameworks and Compliance (ICAO, EASA, FAA).
- Airport Master Planning and Infrastructure.
- Key Performance Indicators (KPIs) in Airport Operations.
- Airside, Terminal, and Landside Operations Overview.

Unit Two: Passenger Handling and Terminal Services

- The Passenger Journey from Curb to Gate.
- Check-in Processes and Automation.
- Boarding Gate Procedures and Passenger Reconciliation.
- Managing Special Categories of Passengers (PRMs, UMs).
- Customer Service Excellence in the Airport Environment.
- Baggage Acceptance and Tagging Standards.
- Lost, Found, and Damaged Baggage Procedures.

Unit Three: Airside Safety and Ramp Management

- Comprehensive Airside Safety Management Systems (SMS).
- Ramp Safety Protocols and Hazard Identification.
- Aircraft Marshalling and Hand Signals.
- Ground Support Equipment (GSE) Operations and Maintenance.
- Aircraft Fuelling Procedures and Safety.
- Management of Foreign Object Debris (FOD).
- Adverse Weather Operations and De-icing/Anti-icing.

Unit Four: Aircraft Turnaround Coordination

- The Critical Path of Aircraft Turnaround.
- Load Control, Weight, and Balance Principles.
- Aircraft Loading and Offloading Procedures.
- Coordination and Communication Between Ground Staff, Flight Crew, and Operations Control.
- Service Level Agreements (SLAs) in Ground Handling.
- Strategies for Minimizing Ground Time and Delays.
- Turnaround Technologies and Digitalization.

Unit Five: Advanced Operations and Future Trends

- Airport Emergency and Contingency Planning.
- Aviation Security and Threat Management on the Ground.
- Air Cargo and Mail Handling Procedures.
- Environmental Management and Sustainable Airport Operations.
- The Role of Technology: Biometrics, AI, and Automation.
- Managing Irregular Operations (IROPS).
- The Future of Ground Handling and Airport Management.

FAQ:

Qualifications required for registering to this course?

There are no requirements.

How long is each daily session, and what is the total number of training hours for the course?

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

Something to think about:

Considering the push for environmental sustainability, how can ground handling operations be redesigned to significantly reduce their carbon footprint without compromising operational efficiency and safety?

What unique qualities does this course offer compared to other courses?

This course distinguishes itself by offering a holistic and strategic perspective on airport operations, moving beyond mere procedural training. While other programs may focus on isolated tasks, we integrate the entire operational chain, from passenger check-in to aircraft departure, emphasizing the critical interdependencies that define airport efficiency. Our curriculum is deeply rooted in international best practices, including IATA standards, but is delivered with a forward-looking approach that addresses the industry's most pressing future challenges, such as sustainability, digitalization, and cybersecurity threats on the ground. The course content is enriched with real-world case studies that explore both operational triumphs and failures at major global hubs, providing invaluable lessons in risk management and strategic decision-making. Rather than just teaching what to do, we focus on the "why," empowering participants with the critical thinking skills to adapt, innovate, and lead in the dynamic and high-stakes environment of modern aviation. The emphasis on interactive simulations and collaborative problem-solving ensures that participants develop practical, immediately applicable leadership and coordination skills.