Innovative Baggage Handling and Airport Logistics Training Course



14 - 18 Dec 2026

Lisbon

4500 € (Per Person)

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Course Introduction / Overview:

This comprehensive training course provides an in-depth exploration of modern baggage handling systems (BHS) and the intricate logistics that underpin efficient airport operations. In an era where passenger experience and operational efficiency are paramount, mastering the complexities of baggage handling is crucial for aviation professionals. This program moves beyond basic principles to cover advanced topics such as automated baggage handling, RFID tracking technology, and baggage reconciliation systems (BRS). As detailed by industry experts like Richard de Neufville in his seminal work, "Airport Systems: Planning, Design, and Management," an integrated approach to airport systems is essential for success. Participants will delve into the design, implementation, and management of state-of-the-art BHS, focusing on optimizing processes to reduce mishandled baggage rates and enhance security. BIG BEN Training Center has designed this course to equip attendees with the practical skills and strategic insights needed to manage and innovate within the dynamic field of airport logistics, ensuring compliance with global standards like IATA Resolution 753 and preparing them for the next generation of smart airport technology.

Target Audience / This training course is suitable for:

- Airport Operations Managers.
- Baggage Handling System Supervisors and Team Leaders.
- Airline Ground Operations Staff.
- Airport Logistics and Supply Chain Professionals.
- Aviation Security Personnel.
- Ground Handling Company Managers.
- Airport Planners and Consultants.
- BHS Maintenance and Engineering Staff.
- Airline Station Managers.
- Civil Aviation Authority Officials.

Target Sectors and Industries:

- Aviation and Airline Industry.
- Airport Management and Operations.
- Ground Handling Services.
- Logistics and Supply Chain Management.
- Aviation Security Services.
- Governmental bodies including Civil Aviation Authorities and Airport Authorities.
- Engineering and Technology Firms specializing in airport systems.
- Consulting Firms focused on aviation and infrastructure.

Target Organizations Departments:

- Operations Department.
- Ground Handling Services.
- Baggage Services Department.
- Logistics and Planning.
- Airport Security.
- Engineering and Maintenance.
- Customer Service Department.
- Infrastructure and Development.
- Compliance and Quality Assurance.

Course Offerings:

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

- Analyze the complete lifecycle of baggage from check-in to claim.
- Evaluate the core components and technologies of modern automated baggage handling systems.
- Implement strategies to improve baggage handling efficiency and reduce mishandling rates.
- Understand and apply the requirements of IATA Resolution 753 for baggage tracking.
- Develop operational plans for managing peak traffic and irregular operations.
- Assess the integration of baggage screening technologies with security protocols.
- Optimize baggage reconciliation processes for enhanced accuracy and security.
- Identify key performance indicators (KPIs) for BHS and measure operational success.
- Explore future trends such as AI, IoT, and robotics in baggage logistics.
- Formulate safety and maintenance protocols for BHS equipment and staff.

Course Methodology:

The training methodology at BIG BEN Training Center is designed to be immersive, interactive, and directly applicable to the professional environment. This course rejects a purely theoretical approach, instead fostering a dynamic learning atmosphere through a blend of expert-led presentations, in-depth case studies of leading international airports, and collaborative group workshops. Participants will engage in practical exercises that simulate real-world baggage handling challenges, allowing them to apply concepts in a controlled setting. Interactive sessions, Q&A panels, and peer-to-peer discussions are integral to the program, encouraging the sharing of experiences and diverse perspectives. We will analyze process optimization scenarios, dissect baggage mishandling incidents to identify root causes, and brainstorm innovative solutions. The facilitator will provide continuous feedback and guide participants in developing actionable strategies they can implement within their own organizations. This hands-on, problem-solving approach ensures that learning is not just absorbed but also retained and ready for immediate application in the field of airport logistics.

Course Agenda (Course Units):

Unit One: Foundations of Modern Baggage Handling Systems

- Introduction to Airport Logistics and the Role of BHS.
- The Evolution of Baggage Handling from Manual to Automated Systems.
- Key Performance Indicators (KPIs) in Baggage Handling.
- Understanding the Passenger and Baggage Journey.
- Core Components of a Conventional BHS.
- Introduction to IATA Baggage Handling Standards and Regulations.
- The Economic Impact of Efficient Baggage Handling.

Unit Two: Core BHS Technologies and Automation

- Deep Dive into Conveyor and Sortation Systems.
- Barcode versus RFID Technology for Baggage Tracking.
- Automated Sorting Technologies (e.g., Tilt-Tray, Cross-Belt).
- Hold Baggage Screening (HBS) Integration and Standards.
- The Role and Function of Early Bag Storage (EBS) Systems.
- Baggage Reconciliation Systems (BRS) and Their Importance.
- System Controls, SCADA, and Management Software.

Unit Three: Operational Management and Process Optimization

- Process Mapping of Baggage Flow and Identifying Bottlenecks.
- Strategies for Reducing Mishandled and Lost Baggage.
- Managing Peak Hour Operations and Irregularities (IROP).
- Data Analytics for Performance Monitoring and Improvement.
- Resource Allocation and Workforce Management in Baggage Handling.
- Optimizing the Baggage Claim and Transfer Processes.
- Inter-departmental Coordination for Seamless Operations.

Unit Four: Security, Safety, and Regulatory Compliance

- In-depth Analysis of IATA Resolution 753 Compliance.
- Global Standards for Hold Baggage Screening (HBS).
- Physical Security Measures within the BHS Environment.
- Occupational Health and Safety Protocols for BHS Staff.
- Emergency Response and Contingency Planning for BHS Failures.
- Integration with Customs and Border Protection Processes.
- Auditing and Ensuring Continuous Regulatory Compliance.

Unit Five: The Future of Airport Baggage Logistics

- The Impact of AI and Machine Learning on BHS.
- IoT for Predictive Maintenance and Asset Tracking.
- Sustainable Practices in Baggage Handling Operations.
- The Rise of Robotics and Autonomous Vehicles in the Baggage Hall.
- Enhancing the Passenger Experience through Technology.
- Designing the Next Generation of Smart Baggage Handling Systems.
- Preparing for Future Growth and Technological Disruption.

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:

As airports move towards full automation with AI and robotics, what are the primary ethical and operational considerations for managing the transition of the human workforce in baggage handling departments?

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

This course distinguishes itself by offering a holistic, forward-looking perspective on baggage handling that transcends mere operational training. While other programs may focus narrowly on existing systems and procedures, this curriculum integrates technical knowledge with strategic management and future innovation. We delve deeply into the 'why' behind the 'how', exploring the direct link between BHS efficiency, airport profitability, and passenger satisfaction. The curriculum is uniquely structured to address not only current challenges, such as IATA Resolution 753 compliance, but also to prepare professionals for the next wave of disruption, including AI-driven analytics, IoT-based predictive maintenance, and sustainable operations. By analyzing real-world case studies from globally recognized airports, participants gain practical, actionable insights rather than just theoretical knowledge. The emphasis on interactive problem-solving and strategic thinking equips attendees not just to manage existing systems, but to lead the design and implementation of the intelligent, efficient, and resilient baggage logistics of the future.