

Ground Support Equipment Management Training Course

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

Ground Support Equipment (GSE) Management is a critical component of modern airport operations, ensuring the safe, efficient, and sustainable movement of aircraft, passengers, baggage, and cargo. As airports continue embracing digital transformation, smart aviation technologies, predictive maintenance, automation, sustainability initiatives, and operational excellence, organizations require professionals capable of managing diverse fleets of ground support equipment while maintaining international safety and regulatory compliance. Ground Support Equipment Management Training Course equips participants with practical knowledge in GSE lifecycle management, asset optimization, preventive maintenance, aviation safety, risk management, equipment utilization, and performance monitoring to improve operational reliability and reduce downtime.

The program integrates global best practices, innovative maintenance strategies, environmental sustainability, data-driven decision-making, fleet management systems, occupational safety, quality assurance, and airport operational efficiency. Participants will learn how to optimize equipment availability, improve maintenance planning, minimize operational disruptions, reduce lifecycle costs, strengthen compliance with ICAO and IATA standards, and enhance service delivery through effective Ground Support Equipment Management.

Programme Curriculum

Ground Support Equipment Management Training Course

Introduction

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Course Objectives

Upon completion of this course participants will be able to:

1. Apply advanced Ground Support Equipment management strategies.
2. Improve airport operational efficiency using smart technologies.
3. Implement predictive and preventive maintenance systems.
4. Optimize GSE fleet lifecycle management.
5. Strengthen aviation safety and regulatory compliance.
6. Improve asset utilization and equipment reliability.
7. Manage GSE risks using international best practices.
8. Integrate digital maintenance management solutions.
9. Enhance sustainability through green airport initiatives.
10. Analyze equipment performance using operational analytics.
11. Improve resource planning and workforce productivity.
12. Develop effective GSE procurement and replacement strategies.
13. Promote continuous improvement and operational excellence.

Organizational Benefits

- Improved aircraft turnaround performance.
- Reduced equipment downtime and failures.
- Enhanced operational safety culture.
- Better maintenance planning and scheduling.
- Lower operating and maintenance costs.
- Increased equipment availability and reliability.
- Improved compliance with aviation regulations.
- Enhanced staff productivity and accountability.
- Better environmental sustainability performance.
- Stronger customer satisfaction and airport competitiveness.

Target Audiences

- Airport Operations Managers

- Ground Handling Supervisors
- GSE Maintenance Engineers
- Fleet Managers
- Airport Safety Officers
- Technical Maintenance Personnel
- Aviation Operations Coordinators
- Airport Facility Managers

Course Duration: 5 days

Course Modules

Module 1: Fundamentals of Ground Support Equipment Management

- Overview of airport Ground Support Equipment.
- Types and applications of GSE.
- GSE operational planning.
- Roles and responsibilities in equipment management.
- International aviation regulations.
- Global Case Study: Singapore Changi Airport GSE operations.

Module 2: GSE Fleet Planning and Asset Management

- Fleet acquisition planning.
- Asset lifecycle management.
- Equipment utilization analysis.
- Capacity planning techniques.
- Asset performance monitoring.
- Global Case Study: Heathrow Airport fleet optimization.

Module 3: Maintenance Management and Reliability

- Preventive maintenance planning.
- Predictive maintenance technologies.
- Maintenance scheduling systems.
- Equipment reliability improvement.
- Spare parts management.
- Global Case Study: Lufthansa Technik maintenance practices.

Module 4: Safety and Regulatory Compliance

- Aviation safety requirements.
- Risk identification and mitigation.

- Occupational health and safety.
- ICAO and IATA compliance.
- Incident reporting procedures.
- Global Case Study: Dubai International Airport safety systems.

Module 5: Digital Technologies in GSE Management

- Computerized Maintenance Management Systems.
- IoT-enabled equipment monitoring.
- Data analytics for maintenance.
- Fleet tracking technologies.
- Automation in airport operations.
- Global Case Study: Schiphol Airport smart GSE initiatives.

Module 6: Sustainability and Environmental Management

- Green airport operations.
- Electric Ground Support Equipment.
- Carbon emission reduction.
- Energy-efficient equipment management.
- Environmental compliance.
- Global Case Study: Oslo Airport electric GSE implementation.

Module 7: Performance Measurement and Continuous Improvement

- Key Performance Indicators.
- Equipment availability analysis.
- Operational benchmarking.
- Cost optimization strategies.
- Continuous improvement frameworks.
- Global Case Study: Hong Kong International Airport operational excellence.

Module 8: Strategic GSE Management

- Procurement and contract management.
- Budgeting and financial planning.
- Vendor relationship management.
- Workforce development.
- Business continuity planning.
- Global Case Study: Atlanta Hartsfield-Jackson Airport GSE modernization.

Training Methodology

- Interactive instructor-led presentations.
- Practical demonstrations and simulations.
- Group discussions and collaborative learning.
- Global aviation case study analysis.
- Hands-on maintenance planning exercises.
- Equipment inspection workshops.
- Digital fleet management demonstrations.
- Risk assessment exercises.
- Performance evaluation activities.
- Action planning and knowledge assessment.

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

- The participant must be conversant with English.
- Upon completion of training the participant will be issued with an Authorized Training Certificate
- Course duration is flexible and the contents can be modified to fit any number of days.
- The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.
- One-year post-training support Consultation and Coaching provided after the course.
- Payment should be done at least a week before commencement 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
21 Sep 2026	25 Sep 2026	Online	\$1,000

Start Date	End Date	Location	Price
21 Sep 2026	25 Sep 2026	Physical	\$1,500
21 Sep 2026	25 Sep 2026	Physical	\$0
21 Sep 2026	25 Sep 2026	Physical	\$0
21 Sep 2026	25 Sep 2026	Physical	\$0
21 Sep 2026	25 Sep 2026	Physical	\$0
21 Sep 2026	25 Sep 2026	Physical	\$0
21 Sep 2026	25 Sep 2026	Physical	\$0

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

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