

# Diploma in Airport Engineering

30 Jul – 28 Sep 2018 & 29 Jul – 27 Sep 2019

This diploma combines academic knowledge with practical applications in the field of airport engineering. It provides you with an understanding of airport related engineering responsibilities, airport development and maintenance requirements.

## WHAT YOU WILL LEARN

Upon completion of this programme, you will be able to:

- Demonstrate technical knowledge on airport related engineering practices in accordance with international standards
- Examine major principles, criteria and considerations in airport planning
- Explain the concepts and considerations in the design and construction of airports and its facilities
- Build up a system to manage airport maintenance responsibilities
- Gain knowledge on a wide spectrum of airport engineering concepts and their practical applications

## WHAT IS COVERED

### Module I: Airport System and Planning

- Overview of Air Traffic Control and Navigation Aids
- Airport Utilities
- Introduction to Airport Planning
- Airport Demand Management
- Traffic Forecasts
- Capacity and Delay Analysis
- Airport Configuration
- Environmental Issues
- Land Use Planning
- Obstacle Limitation Surfaces
- Site Selection Process
- Airport Access
- Passenger and Cargo Terminal Design
- Airport Master Plan

### Module II: Airport Design and Construction

- Geometric Design of Taxiways, Holding Bays, Aprons and Runway System
- Site Preparation
- Geotechnical Engineering
- Soil Stabilisation
- Asphalt Concrete Theory and Design
- Flexible and Rigid Pavement Design and Construction
- Mechanical and Electrical Systems

- Construction Management and Contract
- Baggage Handling Systems

### Module III: Airport Maintenance

- Overview of Maintenance Management
- Cleaning Maintenance
- Facilities Life Cycle Costing
- Building Defects and Rectification
- Maintenance Contract and Budget
- Pavement Maintenance
- Evaluation of Pavement Strength
- Maintenance of Surface Elements
- Apron Management
- Resource Allocation
- Mechanical and Electrical Systems Maintenance and Management
- Landscaping and Maintenance
- Ground Operations

## LEARNING ACTIVITIES

- Learning Journey to Changi Airport
- Case Studies
- Group Exercises

## ASSESSMENT AND CERTIFICATION

You are required to sit for an assessment (Multiple Choice Questions) for each Module. A Professional Diploma in Airport Engineering will be awarded by the SAA to those who have successfully completed the 3 modules, as well as passed all assessments, within the candidature period.

## CANDIDATURE PERIOD

All modules are to be completed within 3 years of admission.

## WHO SHOULD ATTEND

This course is beneficial to engineers, planners, operational and technical personnel preferably with a civil engineering background and relevant experience from civil aviation administrations, airport authorities, government or private agencies responsible for the planning and development of airports and private organisations providing consultancy services to airports.

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## DURATION

9 weeks

## FEE

S\$17,000

*Fees may also be paid in USD. Participants from Singapore are required to add GST to the course fee.*

## DISCOUNT

- Group Discount – Enjoy a group discount for three or more participants registered at the same time from the same organisation and billing source:
  - Three to six : 10%
  - Seven to nine : 15%
  - Ten or more : 20%