

**CURRICULUM FOR POST GRADUATE DIPLOMA IN AIRPORT OPERATIONS**

**SEMESTER – 1**

**1. Introduction to Airport Operations**

- ❖ Introduction to Aviation Industry
- ❖ Familiarization with Terminal Operations
- ❖ Role of Regulatory bodies / Agencies (BCAS/DGCA/AAI/ACI/IATA/ICAO) and their regulation / prescriptions.
- ❖ Passenger Handling procedures
- ❖ Check-in & Documentation procedures
- ❖ Handling of passenger with special needs/attention

**2. Airport Information Management – I**

- ❖ Resource & Capacity Planning – Landside / Airside
- ❖ Software development & Integration
- ❖ Quality Consulting
- ❖ Business Analysis
- ❖ Passenger Flow

**3. Airport Engineering System – I**

- ❖ Aircraft Ground Handling
- ❖ Hydrant Fuelling
- ❖ Visual Docking Guidance System
- ❖ Equipment Handling & Maintenance Records
- ❖ Safety procedures (Equipment's)

**4. Security Management and Airport Service Operations**

- ❖ Terminology and definitions
- ❖ Security Awareness
- ❖ Access Control – People & Vehicle
- ❖ Passenger- "Entry up to the Embarkation in the aircraft"
- ❖ Baggage Handling System (BHS) with multi – level high tech screening system
- ❖ CCTV and AOCC familiarization

**5. Cargo Operations: Planning, Designing & Control**

- ❖ Genesis and evolution of Cargo Terminal
- ❖ Concept of Single handling Agency
- ❖ Role of Cargo Terminal Operator
- ❖ Role of Facilitating / Handling Agencies
- ❖ Role of Aircraft Operator

**6. Managerial Communication – I**

- ❖ Business communication & its scope for aviation industry
- ❖ Basic Ingredients of communication
- ❖ Barriers to communication
- ❖ Non – Verbal Conversation & cultivating Body Language
- ❖ Report writing



## **7. Fundamentals of Organisational Behaviour**

- ❖ Introduction
- ❖ Organisational Behaviour
- ❖ Managing the demographic & cultural diversity
- ❖ Understanding people at work; Managing individuals and preparations
- ❖ Individual attitudes & behaviours
- ❖ Theories of Motivation
- ❖ Designing a motivating work environment
- ❖ Managing Stress & Emotions
- ❖ Organizational structure & change
- ❖ Conflict Management & Negotiation Skills
- ❖ Cultivation Leadership skills within the organisation

## **8. Airport Economic and Finance**

- ❖ Airport Revenue and Expenditure Models
- ❖ Ownership control and governance of airports
- ❖ Commercialization of Airports
- ❖ Airport economic and financial management
- ❖ Financial airport infrastructure
- ❖ Measuring airport economic performance
- ❖ Calculation of the Weightage Average Cost of Capital
- Case Studies

## **9. Customer Relationship Management**

- ❖ What is CRM? Origin of CRM, Features of CRM
- ❖ Types of customers, Customer Profiling
- ❖ Customer Orientation, Customer relationship Measurement
- ❖ Advantages and disadvantages of CRM
- ❖ What is the Customer Development Process?
- ❖ Importance of Customer Retention
- ❖ Strategies for Customer Retention
- ❖ Types of CRM
- ❖ Technological applications of CRM
- ❖ Electronic Customer Relationship Management

## **10. Airport Service Quality**

- ❖ Purpose of the Airport Service Quality
- ❖ Dimensions of Service Quality
- ❖ Methodology of the ASQ programme at a glance general information

11. Mini Project Based on any of the topic in the Curriculum

12. Airport Familiarization visit / Short Internship at airports during the semester break

**SEMESTER – 2**

**1. Civil Aviation laws and Regulatory Frame Work**

- ❖ Introduction to Law
- ❖ Types of law
- ❖ Space Law Vs. Aviation Law
- ❖ The Requirement for Regulation for Civil Aviation
- ❖ The Aircraft (Carriage of Dangerous Goods) Rules
- ❖ Aviation Laws Specific to India: National Legislations

**2. Air Traffic Services, CNS and Aviation Meteorology**

- ❖ Definition of terms commonly used in ATM
- ❖ Evolution and need of Air Traffic Services/Management
- ❖ Concept of ATM and division of services and airspace
- ❖ Concept and use of NDB, VOR, DME, ILS
- ❖ Principles of Radar and its uses
- ❖ Common Codes used in Aviation Meteorology messages and their interpretations
- ❖ Different types of Met forecasts

**3. Airline Management**

- ❖ Introduction to Ramp Safety
- ❖ Types of Aircraft and their Handling Procedures
- ❖ Ground Handling Equipment's
- ❖ Basic Load Control

**4. Dangerous Goods Regulations**

- ❖ Indian legal regime on carriage of dangerous goods by air
- ❖ Applicability, Limitations, Classification, Identification, Marking and Labelling
- ❖ Storage and Loading
- ❖ Provision of Information
- ❖ Dangerous Goods Emergency Response

**5. Safety Management System**

- ❖ Definitions, Introduction to SMS
- ❖ ICAO Safety Management Requirements
- ❖ Safety Policies and Objectives
- ❖ Safety Objective of AA
- ❖ Understanding Hazards and Identification
- ❖ Hazard Identification Methodologies
- ❖ The Five Fundamentals of Safety Risk Management

**6. Airline Economics and Route Development**

- ❖ Introduction to Airline Business Model and Product
- ❖ Market Segmentation and strategies
- ❖ Fundamentals of Airline Economics
- ❖ Supply – Demand Dynamic & Elasticity
- ❖ Understanding Airline Cost Structure

**7. Airport Operation Control Center**

- ❖ Why AOCC?, Need for AOCC
- ❖ Major Airports with AOCC establishments
- ❖ Constituents of Airport operation
- ❖ Roles & Responsibilities of Functionaries, Role of AOCC
- ❖ Objectives of AOCC

**8. Transportation, Warehouse and Cargo Management**

- ❖ Export and Import Cargo Handling Procedures & related documentation
- ❖ Warehouse procedure for both Public & Private
- ❖ Types of Transshipment Cargo & Handling
- ❖ Handling of Special cargo
- ❖ Handling of Domestic cargo
- ❖ Disposal of Unclaimed or Uncleared Cargo
- ❖ Processing of Claims

**9. RFFS & Crisis Management at Airport**

- ❖ Introduction, Administration of RFFS
- ❖ Level of Protection to be provided
- ❖ Airport Category for RFF
- ❖ Airport Fire Station
- ❖ Communication and Alarm Requirements

**10. Airport Engineering & Systems – II**

- ❖ ICAO Annexure 14
- ❖ Aerodrome Data
- ❖ Physical Characteristics
- ❖ Obstacle restriction and removal
- ❖ Indicators
- ❖ Approach Lighting Systems
- ❖ Visual Aids for Denoting Obstacles
- ❖ Physical characteristics
- ❖ Visual Aids for denoting restricted use of areas
- ❖ Electrical Systems
- ❖ Aerodrome Maintenance
- ❖ Air Traffic Management
- ❖ Introduction to Air Traffic Services
- ❖ ATS Airspace Classes – Services provided to flight
- ❖ Rules of the Air – General
- ❖ Navigational Aids
- ❖ Non- Directional Beacon (NDB)
- ❖ Progressive establishment of Air Traffic Services
- ❖ Very High frequency Omni – Range (VOR)
- ❖ Distance Measuring Equipment (DME)
- ❖ Instrument Landing System (ILS)
- ❖ Radar
- ❖ Aviation Metrological Messages and their codes

11. Mini Project Based on any of the topic in the Curriculum

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**SEMESTER - 3**

1. Internship at GMR Airports (IGI Airport & RGI Airport)

