GUJARAT TECHNOLOGICAL UNIVERSITY

AERONAUTICAL ENGINEERING
AIRPORT AND OPERATIONS MANAGEMENT
SUBJECT CODE: 2160107
B.E. 6thSEMESTER

Type of course: Management

Prerequisite: Exposure to preliminary subjects of Management in earlier semesters.

Rationale: Offering this subject would benefit students of Aeronautical Engineering in terms of opportunities for recruitment at Airport premises in India

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks						Total Marks
L	T	P	C	Theory Marks			Practical Marks			
				ESE (E)	PA (M)		ESE (V)		PA (I)	
					PA	ALA	ESE	OEP		
2	0	0	2	70	20	10	0	0	0	100

Content:

Unit	**AIRPORT MANAGEMENT:**	**HOURS**	
1	INTRODUCTION TO AIR TRANSPORT AND AIRPORTS Development of Airports, Standards, Aircraft Handling Methods, Aircraft Ground Handling Activities, Deplaning and Boarding, Supplies of Power, Air-Conditioning and Compressed Air, Cargo and Baggage loading, Push back operations	08	35%
2	PASSENGER TERMINALS Airport Terminal Design Principles, Airport terminal Layout, Airport Terminal Concepts, Terminal Design, The Handling Process	04	15%
3	AIRPORT EMERGENCY SERVICES, SECURITY AND AVIATION CRIME Rules of the rescue and fire-fighting service, Level of protection required, Rescue and fire-fighting vehicles, Airport Fire stations, Post Emergency Operations Unlawful acts and Air Transport, The Airport system and its security, Safeguarding of Airport security, Detection of dangerous objects Drug smuggling, Drug abuse in Civil Aviation, Suspect/Unapproved Airplane parts, Hijacking, Other acts of terrorism, Response to bomb threats and terrorism.	12	50%

Suggested Specification table with Marks (Theory):

Distribution of Theory Marks					
R Level	U Level	A Level	N Level	E Level	C Level
70	**30**	**0**	**0**	**0**	**0**

Legends: R: Remembrance; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Reference books:

1. Airport Design and Operation- Antonin Kazda & Robert E Caves - Pergamon
2. Air Travel: How safe is it? – Laurie Taylor- Blackwell Science
3. Airport Planning & Management – Seth Young & Alexander Wells – McGraw Hill

Course Outcome:

After pursuing this subject, student will learn

1. Infrastructure of civil and military airports.
2. Various operations to be conducted at various divisions of airports.
3. About actions to be taken in case of emergency at airports.

ACTIVE LEARNING ASSIGNMENTS: Preparation of power-point slides, which include videos, animations, pictures, graphics for better understanding theory and practical work – The faculty will allocate chapters/ parts of chapters to groups of students so that the entire syllabus to be covered. The power-point slides should be put up on the web-site of the College/ Institute, along with the names of the students of the group, the name of the faculty, Department and College on the first slide. The best three works should submit to GTU.