



# GUJARAT TECHNOLOGICAL UNIVERSITY

Bachelor of Engineering

Subject Code: 3140109

Semester –IV

Subject Name: Aviation Management

**Type of course:** Humanities and Social Science

**Prerequisite:** Fundamental Knowledge about Aviation activities

**Rationale:** Students should know about past and present scenario of their profession, Governing bodies, and rules and regulations regarding civil and military aviation structure. This subject has been introduced for the same purpose.

## Teaching and Examination Scheme:

Teaching Scheme			Credits C	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
			ESE (E)	PA (M)	ESE (V)	PA (I)		
2	0	0	2	70	30	NA	NA	100

## Content:

Sr. No.	Content	Total Hrs	Weightage
1	<b>History of Aviation:</b> The Evolution of Aviation, Growth Drivers, Issues and Challenges, Global Aviation Industry, Military and Civil Aviation Industry in India, An Overview, Aircraft Types and Structures, Aircraft Manufacturers.	6	20%
2	<b>World airlines and airports , world aviation bodies:</b> Civil, Military, Training, Domestic/International Aviation Structure, Passenger/Cargo Terminals, Aircraft Operators, World Airlines, FAA, EASA, JAA, IATA / ICAO/ AAI/ DGCA, National Aviation Authorities & Role of State and Central Governments.	6	20%
3	<b>Aviation Meteorology:</b> Aviation Maps and Charts, Different types of weather reports- TAF, ROFOR, METAR, ATIS, Weather Charts and signs	4	15%
4	<b>Principles of Radio Telephony:</b> Different types of transmissions/ messages required during flights, RT procedures. Phonetic alphabets and numbers. General navigation procedure	3	10%
5	<b>Air Traffic Management:</b> Rules related to Air Traffic Management, Visual Flight Rules (VFR), and Instruments Flight Rules (IFR), Different types of Airspaces and separations	3	10%
6	<b>Role of Director General of Civil Aviation in India:</b> Introduction of DGCA, rules, Different Types of licenses for pilots and aircraft Maintenance Engineers, aircraft registration, air crash investigation, aircraft inspection. Aeronautical Information Publication.	4	15%
7	<b>Approval of Maintenance Organization:</b> Civil Aviation Requirements, Technical Requirements, Facility Requirements, Personal Requirements, Certifying and support staff, Acceptance of components, Certification of maintenance, New / Unused aircraft components.	4	10%



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Suggested Specification table with Marks (Theory):

Distribution of Theory Marks					
R Level	U Level	A Level	N Level	E Level	C Level
45%	45%	10%	-	-	-

**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. Civil Aviation by Raju G & Mihir Babu G, Publisher : Excel Books
2. Fundamentals of Air Transport Management by P S Senguttuvan, Publisher : Excel Books
3. Air Travel: How safe is it? By Laurie Taylor, Publisher : Blackwell Science
4. Civil Aviation Requirements, CAR-145, Director General of Civil Aviation Author : Ministry of Civil Aviation, Government of India Publisher : The English Book Store
5. Flight: The Complete History by R G Grant Publisher : D K Publishing
6. Flight Radio Telephony Radio Aids and Avionics by Mr. K. D. Tuli- Publisher- Himalayan books
7. Civil Aviation Requirements, CAR-Section-6, Director General of Civil Aviation Author : Ministry of Civil Aviation, Government of India

## Course Outcomes:

After completion of this course students shall be able to

Sr. No.	CO statement	Marks % weightage
CO1	Know past and present operation of aviation industry	40
CO2	Apply the rules and techniques for radio telephony communication.	20
CO3	Demonstrate different types of weather reports.	30
CO4	Understand about how air traffic is managed.	10

## List of Experiments: N/A-

**Note:** Students should be visited to nearest airports, Civil Aviation offices, Aircraft/ Aircraft components manufacturing industries and air force stations, Meteorological Departments for better exposure.

## Major Equipment: N/A

**List of Open Source Software/learning website:** [www.dgca.nic.in](http://www.dgca.nic.in), <https://nptel.ac.in/course.php>