### **SEMESTER-III**

# Subjects:

- 1. Aviation law
- 2. Air Cargo Management
- 3. Airline marketing management
- 4. Aircraft Rules and Regulations C.A.R 1 & II
- 5. Customer Relation Management
- 6. Aviation Safety Management & Accident Investigation

Programme Name: MBA Aviation Subject Name: Aviation Law Subject Code: 1150507216

**Semester: III** 

**Prerequisite:** Zeal to learn the subject

### **Objective**

To make students aware about various aviation law.

### **Teaching and Examination Scheme:**

Teaching Scheme					Evaluation Scheme				
			Contact		Theory		Practical		Total
L	T	P	Hours	Credit	CIE	ESE	CIE	ESE	Marks
			110018		(TH)	(TH)	(PR)	(PR)	
3	0	0	3	3	20/40	30/60	00	00	100

### **Content:**

### **UNIT I**

### HISTORY AND DEVELOPMENT OF AIR LAW IN INDIA

Introduction - Paris Convention on Air Navigation 1919 - Birth of Indian Air Companies - Indian Aircraft Act 1934 - Aircraft Rules 1937 - Nationalization of Air Services - International Airports Authority in India - History of Aviation - Survey of Current Air law in India.

### **UNIT II**

### INTERNATIONAL AIR TRANSPORTATION

Chicago conference - Rules for Air Navigation - Liberalization of International Air transportation - Bermuda Agreement - Application of GATT Principles to International Air Transportation - Environmental Protection Measures - India and Bilateral Services Agreement.

### UNIT III

### **AVIATION LIABILITY**

Liability of the Carrier under the Indian Carriage by Air Act 1972 - Warsaw Convention 1929 - International Carriage - Hague Protocol 1955 - Montreal Interim Agreement 1966 - Guatemala City Protocol 1971.

### **UNIT IV**

### **AIRLINES OWNERSHIP**

Introduction - Privatization - Policy issues - Current Situation - Air Space Management in India.

### UNIT V

### AVIATION IN INDIA

Past - present - Future Overview - Air law and Aviation Policy in India - Air Routes and Aerodromes in India - Aviation Security - Development of Civil Aviation and Air law and Policy in India - Development of Aviation in India and Future Outlook for National Airlines.

### **Course Outcome:**

- It enables the students that how the air law is developed periodically in the world and how the Air Act 1934 and Aircraft rules established in British India
- It enables the students how the commercial air transportation commenced in India and the impact of Paris convention
- It enables students to learn about airlines liability in case of accident
- It enables the students to learn about privatization of airlines and airport and open sky policy in India
- It enables the students learn about air route, airport security and ground navigational aids etc.

### Teaching & Learning Methodology: -

The various methods or tools follows by the faculties to teach the above subject are:

- 1. Audio
- 2. Video
- 3. Power point

### **Text books:**

- Raymond C Speciale. "Fundamentals of Aviation Law", Mc Graw Hill 2016
- Ronald, "International Aviation Law: A Practical Guide", Routledge 2012.

### **Reference Books:**

- Michael W Pearson. "Foundations of Aviation Law", Routledge publishers, 2015.
- Paul B. Larsen, "Aviation Law: Cases, Laws and Related Sources, 2012.

### **MOOCs:**

http://www.enhelion.com/courses-info/60/certificate-aviation-law

 $https://www.coursesites.com/webapps/Bb-sites-course-creation-BBLEARN/courseHomepage.htmlx?course\_id=\_386249\_1$ 

https://www.coursesites.com/webapps/Bb-sites-course-creation-BBLEARN/courseHomepage.htmlx?course\_id=\_386249\_1

# Programme Name: MBA Aviation Subject Name: Air Cargo Management Subject Code: 1150507217

Semester: III

**Prerequisite:** Zeal to learn the subject

### **Objective**

- It enable the students to learn the basic knowledge of Air Cargo operations
- It enable the students understand the movement of Cargo from Shipper to Destination
- It enable the students to learn about business model to increase the revenue and cut cost
- It enable the students about duties and responsibilities of different agencies involved in the Cargo Management
- It enable the students about national aviation policy on Cargo movement and to augment that facilities in the Cargo terminal

### **Teaching and Examination Scheme:**

Teaching Scheme					Evaluation Scheme				
			Contact		Theory		Practical		Total
L	T	P	Hours	Credit	CIE	ESE	CIE	ESE	Marks
			110018		(TH)	(TH)	(PR)	(PR)	
3	0	0	3	3	20/40	30/60	00	00	100

### **Content:**

### **UNIT I**

### INTRODUCTION TO AIR CARGO MANAGEMENT

Introduction, Operations and Industry Regulations, Service Function, Organization and Liability, SLI, Types of cargo, Air Cargo Tariff, Rates & Charges, Valuation charges and Disbursement, Airway Bill, Function, Purpose and Validation

### **UNIT II**

DEVELOPMENT OF THE CONCEPT OF AIR CARGO MANAGEMENT

Overview of the Air Cargo Industry, the fundamental changes taking place in the industry, the changing needs of shippers, Leveraging information technology in key areas of the industry, Air Cargo Competitive Landscape – emerging trends in air cargo industry, Performance of leading air cargo operators, economics of PTF (Passenger to Freighter), History of PTF

### UNIT III

# OVERVIEW OF AIR CARGO OPERATIONS AND BUSINESS MODELS

Applying gap analysis for profit opportunities and better efficiencies, Strategies and business models from other industries: Lessons for Air Cargo, Logistics as a competitive advantage in supermarket retailing, Logistics as a key to profitability - Short history of automation in air cargo, Expectations of the end customer, Benefits of automation and e-business for the end-to-end air cargo supply chain, Components of a comprehensive e-Cargo approach for a modern cargo airline and a freight forwarding.

### **UNIT IV**

# DIGITALISATION OF AIR CARGO MANAGEMENT AND CARGO HANDLING FACILITY

Understanding the Technology of E-Cargo, EDI standards: Cargo-IMP vs. XML, Cargo Community Systems, The Cargo Cloud, E-Pouch solutions and electronic document management platforms, the paperless process flows, Technology for the warehouse: how to match data with the physical flows for optimum efficiency, Airport Cargo Activity & Cargo Zone, Aircraft Handling with Cargo, Cargo Terminals and Facilities, Emerging trend in Cargo & Cargo Carriers.

### **UNIT V**

### AIR CARGO POLICY

National Civil Aviation Policy – Air cargo focus – Main Features – Implications for stakeholders

### **Course Outcome:**

- It enable the students to learn the basic knowledge of Air Cargo operations
- It enable the students understand the movement of Cargo from Shipper to Destination
- It enable the students to learn about business model to increase the revenue and cut cost
- It enable the students about duties and responsibilities of different agencies involved in the Cargo Management
- It enable the students about national aviation policy on Cargo movement and to augment that facilities in the Cargo terminal

### **Teaching & Learning Methodology: -**

The various methods or tools follows by the faculties to teach the above subject are:

- 1. Audio
- 2. Video
- 3. Power point

### **Text books:**

- Michael Sales, Air Cargo Management: Air Freight and the Global Supply Chain, Routledge, 2017.
- Airline Efficiency edited by John D. Bitzan, James H. Peoples, Wesley W. Wilson, Emerald, 2016.

### **Reference Books:**

- Sung Chi-Chu, "4th Party cyber logistics for Aircargo", Boston: Kluwer Academic Publishers, 2006.
- P.S. Senguttavan, "Fundamentals of Air transport management", Oxford-Atlas-Oxford Publishing, Excel books, 2010.

### **MOOCs:**

https://www.coursera.org/learn/supply-chain-logistics https://ocw.mit.edu/courses/aeronautics-and-astronautics/16-886-air-transportation-systemsarchitecting-spring-2004

### Subject Name: Airline Marketing Management Subject Code: 1150507218

Semester: III

Prerequisite: Zeal to learn the subject

### **Objective**

• To acquaint the students with marketing in aviation industry.

Teaching Scheme					Evaluation Scheme				
			Contact		The	eory	Prac	tical	Total
L	T	P	Hours	Credit	CIE	ESE	CIE	ESE	Marks
			110018		(TH)	(TH)	(PR)	(PR)	
3	0	0	3	3	20/40	30/60	00	00	100

### **Content:**

### UNIT I

### INTRODUCTION

Marketing Environment, Customer Oriented Organisation, Marketing Conceptual Framework, Marketing Mix, Stages in application of marketing principles to airline management.

### UNIT II

### AIRLINE FINANCIAL PERFORMANCE

Customer Definition, Apparent & True Needs, Industrial Buying Behaviour, Customer in the Business Air Travel Market & Leisure Market, Air Freight Market, Theoretical basis of PESTE Analysis, Building Customer Satisfaction

### UNIT III

### PRODUCT ANALYSIS IN AIRLINE MARKETING

Product – definition, Product Life Cycle, Product Life Cycles in Aviation Industry, Managing Product Portfolio, Balancing Risk and Opportunity, Fleet & Schedules related Product Features, Customer Service Related Product Features, Pricing Decisions, Building Blocks in the Airline Pricing Policy

### **UNIT IV**

### MARKETING RESEARCH

Types, process, tools and techniques, application of marketing research, product launching, demand estimation, advertising, brand preferences, customer satisfaction, retail stores image, customer perception,

distribution, customer relationship, competitor analysis and related aspects, preparation of marketing research report.

### **UNIT V**

# INFORMATION TECHNOLOGY IMPACT ON MARKETING DECISIONS

Online marketing – web based marketing programmes – emerging trends and challenges to marketers.

### **Course Outcome:**

- Understanding the marketing principles in Aviation industry.
- Understanding PESTEL Analysis and to build customer satisfaction
- Understanding the pricing strategies in related to product features.
- Comprehend the process and tools to find the competitor and their sustainability in the fields.
- Getting an exposure on innovation and strategies through e sources.

### Teaching & Learning Methodology: -

The various methods or tools follows by the faculties to teach the above subject are:

- 1. Audio
- 2. Video
- 3. Power point

### **Text Books:**

• Stephen Shaw "Airline Marketing and Management "Ashgate Sixth Edition

### **Reference Books:**

- Philip Kotler: Marketing management (Millenium edidtion), Prentice Hall of India P (ltd), New Delhi 2001.
- Micheal R.Czinkota & Masaaki Kotabe, Marketing Management, Vikas Thomson learning 2000. Douglas, J.Darymple Marketing Management John Wiley & Sons, 2000
- NAG, Marketing successfully a professional perceptive, macmilan 2001
- Boyd Walker, Marketing Management, McGraw Hill, 2002
- Aakar Day, Kumar, Essential of Marketing Research
- Keith Flether, Marketing Management and Information Technology Prentice Hall, 1998

### E books:

http://perpustakaan.sttkd.ac.id/ebook/uploads/Airline%20marketing%20and%20management%20.pdf

http://mail.dai-global-developments.com/6syd9zz4azim/09-isaac-bernhard-3/read-9781409401476-airline-marketing-and-management-hardback.pdf

### Web resources:

https://www.sciencedirect.com/journal/journal-of-air-transport-management https://www.journals.elsevier.com/journal-of-air-transport-management/recent-articles https://www.mcgill.ca/iasl/files/iasl/ASPL614-Airline-Business.pdf

## **MOOCs:**

https://www.udemy.com/aviation-customer-service-in-airline-industry

# Subject Name: Aircraft Rules and Regulations C.A.R I & II

Subject Code: 1150507219 Semester: III

**Prerequisite:** Zeal to learn the subject

### **Objective:**

• To provide knowledge about C.A.R

Teaching Scheme					Evaluation Scheme				
			Contact		The	eory	Prac	tical	Total
L	T	P	Hours	Credit	CIE	ESE	CIE	ESE	Marks
			110018		(TH)	(TH)	(PR)	(PR)	
3	0	0	3	3	20/40	30/60	00	00	100

### **Content:**

### **UNIT I**

C.A.R SERIES 'A' - PROCEDURE FOR CIVIL AIR WORTHINESS REQUIRMENTS AND RESPONSIBILITY OPERATORS VIS-A-VIS AIR WORTHINESS DIRECTORATE:

Responsibilities of operators / owners - Procedure of CAR issue, amendments etc.,- Objectives and targets of airworthiness directorate - Airworthiness regulations - safety oversight of engineering activities of operators.

C.A.R. SERIES 'B' - ISSUE APPROVAL OF COCKPIT CHECK LIST, MEL, CDL:

Deficiency list (MEL & CDL); Preparation and use of cockpit check list and emergency list.

### **UNIT II**

C.A.R. SERIES 'C' - DEFECT RECORDING, MONITORING, INVESTIGATION AND REPORTING:

Reliability Programme (Engines) - Aircraft maintenance programme & their approval — On condition maintenance of reciprocating engines - TBO - Revision programme - Maintenance of fuel and oil uplift and consumption - records - Light aircraft engines - Fixing routine maintenance periods and component TBOs - Initial & revisions.

#### **UNIT III**

C.A.R. SERIES 'E' - APPROVAL OF ORGANISATIONS: Approval of organisations in categories A, B, C, D, E, F, & G; Requirements of infrastructure at stations other than parent base

C.A.R. SERIES 'F' - AIR WORTHINESS AND CONTINUED AIR WORTHINESS:

Procedure relating to registration of aircraft - Procedure for issue / revalidation of Type Certificate of aircraft and its engines / propeller - Issue / revaildation of Certificate of Airworthiness - Requirements for renewal of - Certificate of Airworthiness

### **UNIT IV**

C.A.R. SERIES 'L' - AIRCRAFT MAINTENANCE ENGINEER - LICENSING:

Issue of AME Licence - its classification and experience requirements - Complete Series 'L'. C.A.R. SERIES 'M' MANDATORY MODIFICATIONS AND INSPECTIONS: Mandatory Modifications / Inspections.

### **UNIT V**

C.A.R. SERIES 'T' - FLIGHT TESTING OF AIRCRAFT:

Flight testing of (Series) aircraft for issue of C of A - Fight testing of aircraft for which C or A had been perviously issued.

C.A.R. SERIES 'X' - MISCELLANEOUS REQUIREMENTS:

Registration Markings of aircraft- Weight and balance control of an aircraft - Provision of first aid kits - Physician's kit in an aircraft - Use furnishing materials in an aircraft - Concessions – Aircraft log books - Document to be carried on board on Indian registered aircraft - Procedure for issue of tax permit - Procedure for issue of type approval of aircraft components and equipment including instruments.

### **Course Outcome:**

• Understand the various Civil Aviation Requirements for operators along with its responsibilities

### **Teaching & Learning Methodology: -**

The various methods or tools follows by the faculties to teach the above subject are:

- 1. Audio
- 2. Video
- 3. Power point

### **Text Books:**

"Civil Aviation Requriements with latest Amendment (Section 2 Airworthiness)", Published by DGCA, The English Book Store, 17-1, Connaught Circus, New Delhi.

# **Reference Books:**

- "Aircraft Manual (India)", Volume Latest Edition, The English Book Store, 17-1, Connaught Circus, New Delhi.
- "Aeronautical Information Circulars (relating to Airworthiness)", from DGCA.
- "Advisory Circulars", form DGCA

## **Subject Name: Customer Relation Management**

Subject Code: 1150507220 Semester: III

Prerequisite: Zeal to learn the subject

### **Objective**

• To enable students to learn about customer relationship management.

### **Teaching and Examination Scheme:**

Teaching Scheme					<b>Evaluation Scheme</b>				
			Contact		The	eory	Prac	tical	Total
L	T	P	Hours	Credit	CIE	ESE	CIE	ESE	Marks
			Hours		(TH)	(TH)	(PR)	(PR)	
3	0	0	3	3	20/40	30/60	00	00	100

### **Content:**

### **UNIT I**

### INTRODUCTION

Definitions - Concepts and Context of relationship Management – Evolution - Transactional Vs Relationship Approach – CRM as a strategic marketing tool – CRM significance to the stakeholders.

### **UNIT II**

### **UNDERSTANDING CUSTOMERS**

Customer information Database – Customer Profile Analysis - Customer perception, Expectations analysis – Customer behavior in relationship perspectives; individual and group customer's - Customer life time value – Selection of Profitable customer segments.

### **UNIT III**

### **CRM STRUCTURS**

Elements of CRM – CRM Process – Strategies for Customer acquisition – Retention and Prevention of defection – Models of CRM – CRM road map for business applications.

#### **UNIT IV**

### CRM PLANNING AND IMPLEMENTATION

Strategic CRM planning process – Implementation issues – CRM Tools-Analytical CRM – Operational CRM – Call center management – Role of CRM Managers

### UNIT V

TRENDS IN CRM

TRENDS IN CRM e- CRM Solutions – Data Warehousing – Data mining for CRM – an introduction to CRM software packages. CRM Implementation–A comprehensive model-Developing CRM vision and strategy Management support.

### **Course Outcome:**

• Students will be able to use CRM as strategic marketing tool.

### Teaching & Learning Methodology: -

The various methods or tools follows by the faculties to teach the above subject are:

- 1. Audio
- 2. Video
- 3. Power point

### **Text Books:**

- G.Shainesh, Jagdish, N.Sheth, Customer Relationships Management Strategic Perspective, Macmillan 2005.
- Alok Kumar et al, Customer Relationship Management: Concepts and applications, Biztantra, 2008

### **Reference Books:**

- H.Peeru Mohamed and A.Sahadevan, Customer Relation Management, Vikas Publishing 2005
- Jim Catheart, the Eight Competencies of Relationship selling, Macmillan India, 2005
- Assel, Consumer Behavior, Cengage Learning, 6th Edition
- Kumar, Customer Relationship Management A Database Approach, Wiley India, 2007
- Francis Buttle, Customer Relationship Management: Concepts & Tools, Elsevier, 2004

## Subject Name: Aviation Safety Management & Accident Investigation

Subject Code: 1150507221 Semester: III

**Prerequisite:** Zeal to learn the subject

### **Objective**

• To help the students to understand the concepts of overall aviation safety and security and the causes of accidents

• The students will understand the human factors involved in aviation safety.

Teaching Scheme									
			Contact		Theory		Practical		Total
L	T	P	Hours	Credit	CIE	ESE	CIE	ESE	Marks
			110015		(TH)	(TH)	(PR)	(PR)	
4	0	0	4	4	20/40	30/60	00	00	100

### **Content:**

### UNIT I

# AVIATION CONCEPTS, FUNCTIONS AND ENVIRONMENTAL FACTORS

Aviation Safety – Need-Economic of aviation safety – safety Vs Mission – Randomness of Damage Accident Injury – Zero Accident Rate – Accident causes – Multiple Vs Single cause – Aircraft Accident – Aircraft Mishap – Aircraft incident – Building Aviation Safety Programme – Prevention methodology – Risk Management.

### **UNIT II**

# HUMAN FACTORS IN AVAITION SAFETY, MOTIVATION, TRAINING

Theory of Risk – Changing the Behaviour of the risk takers – Attitudes – Discipline – Punishment – Protection of safety – Motivating Safety Behaviour – Human factors difficulties – Training involving human factors – Human Performance Concerns – Human Performance Factors

### UNIT III

### AVIATION SAFETY PROGRAME, SAFETY COMMITTEES

Internal Reporting Systems – Information Distribution System – Aviation Safety Committee – Aviation Safety Inspection Programs – Aviation safety program Evaluation – Flight Operation Safety Inspection – Safety

Inspection Report Format – Aviation Safety Education and Training – Aviation Safety Awards Programs – Accident Preparation and Investigation.

### **UNIT IV**

### AIRCRAFT MAINTENANCE SAFETY

Aircraft discrepancies – Delayed and Deferred Discrepancies – Training – Configuration Control – Maintenance Engine runs and taxiing – Maintenance test flight – Maintenance analysis – Tools Control – Hazardous Waste Disposal – Bogus parts – Technical data – Maintenance Inspections – Flight Line Practices – Maintenance Safety Programs – Maintenance Safety Inspections.

### **UNIT V**

### SAFETY CRITERIA, DOCUMENTS

Airport Certification Manual – Airport Emergency Plan – Airports / Heliports criteria – Airfield criteria – Airspace Criteria – Foreign object control – Bird Hazards – Snow and Ice Removal – Fuel Handling – Vehicle Control – Airport and Heliport Safety Inspections.

### **Course Outcome:**

- Students will understand different type's aviation safety programs
- Students will learn flight maintenance and analysis.
- Students will know different types of manual used at Airport

### **Teaching & Learning Methodology: -**

The various methods or tools follows by the faculties to teach the above subject are:

- 1. Audio
- 2. Video
- 3. Power point

### **Text Book:**

- Aviation Safety Programs A Management Handbook Richard H. Wood, 2003
- Safety Management Systems for Aviation Practitioners: Real-world Lessons, 2013

### **Reference Books:**

- Commercial Aviation Safety V edition Claence C.Rodufues, 2011
- Commercial Aviation Safety VI edition Stephan K. Cusick, 2017
- Safety Management Systems in Aviation Allan J Stolzer, Carld. Halford, 2008

## E-Books:

https://asrs.arc.nasa.gov/search/database.html

# **MOOCs:**

 $https://www.coursesites.com/webapps/Bb-sites-course-creation \\BBLEARN/courseHomepage.htmlx?course\_id=\_305204\_1$ 

## Web source:

https://aviation-safety.net/

https://asrs.arc.nasa.gov/search/database.html