

**BANGALORE**



**UNIVERSITY**

**NEW SYLLABUS 2020 – 21**  
**B.B.A DEGREE**  
**(AVIATION MANAGEMENT)**  
**(CBCS - SEMESTER SCHEME)**  
**(Revised Syllabus as on BOS held on 26<sup>th</sup> June 2020)**

**Chairperson – BOS**  
**Prof. R. Sarvamangala**

**DEPARTMENT OF COMMERCE**  
Jnanabharathi Campus, Bengaluru-560056



**BANGALORE UNIVERSITY  
DEPARTMENT OF COMMERCE  
REGULATIONS PERTAINING TO B.B.A DEGREE (AVIATION MANAGEMENT )  
(CBCS - SEMESTER SCHEME) 2020 – 21**

**I.OBJECTIVES**

- 1.To have a clear and comprehensive understanding of aviation business and its operational environment, such as airports, airlines, cargo, safety, and regulations.
- 2.To help students learn the fundamental of aviation management and its applications.
- 3.To enable students to be highly proficient in airline business management technology.
- 4.To demonstrate a high capability of all airline business management aspect (e.g. airline business law, aircraft types, basic reservation, and ticketing)
- 5.To demonstrate a broad core of business knowledge and be able to integrate and apply this knowledge to business situations requiring interdisciplinary and global perspectives.
- 6.To provide hands on experience on most widely used computerized reservation system (CRS) for air ticketing and hotel reservation.
- 7.To prepare students to take the responsibility of full line of Finance function, H.R Function and Marketing Function in Aviation Industry.

**II.ELIGIBILITY FOR ADMISSION**

Candidates who have completed Two years Pre – University course of Karnataka State or its equivalent are eligible for admission into this course.

**III.DURATION OF THE COURSE**

The course of study is Three (03) years of Six Semesters. A candidate shall complete his/her degree within SIX (06) academic years from the date of his/her admission to the first semester. Students successfully completes Three (03) years of the course will be awarded Bachelor’s Degree in Business Administration (Aviation Management).

**IV. MEDIUM OF INSTRUCTION**

The medium of instruction and examination shall be in English.

**V.CLASS ROOM STRENGTH OF STUDENTS**

There shall be Maximum of 60 students in each section.

**VI. ATTENDANCE**

- a. For the purpose of calculating attendance, each semester shall be taken as a Unit.
- b. A student shall be considered to have satisfied the requirement of attendance for the semester, if he/she has attended not less than 75% in aggregate of the number of working periods in each of the subjects compulsorily.
- c. A student who fails to complete the course in the manner stated above shall not be permitted to take the University examination.

**VII. COURSE MATRIX**

See Annexure – 1 for BBA Degree (Aviation Management) Course Matrix

**VIII. TEACHING AND EVALUATION**

- a. M.Com/MBA/MFA/MBS graduates with B. Com, B.B.M, BBA& BBS as basic degree from a recognized university are only eligible to teach and to evaluate the subjects (excepting languages, compulsory additional subjects, core Information Technology related subjects and Aviation Management related subjects) mentioned in this regulation. Languages and additional subjects shall be taught by the graduates as recognized by the respective board of studies.
- b. Master Degree in Aviation Management / Airport Management / Tourism Management/ Any Post Graduate from recognized university with experience in Airport / Aviation Sector minimum of 3 years are eligible to teach Aviation/ Tourism Related subjects.

**IX. SKILL DEVELOPMENT / RECORD MAINTENANCE AND SUBMISSION**

- a. Every college is required to establish a dedicated business lab / computer lab for the purpose of conducting practical classes & online assignments.
- b. In every semester, the student should maintain a Practical Record Book in which practical exercises / programs are to be recorded. This Record has to be submitted to the Faculty for evaluation at least 15 days before the end of each semester.
- c. The BOE is authorized to make random surprise visits to the colleges and verify practical records and marks awarded.

**X. SCHEME OF EXAMINATION**

- a. There shall be a university examination at the end of each semester. The maximum marks for the university examination in each paper shall be 70.

b. Of the 30 marks of Internal Assessment, 20 marks shall be based on two tests. Each test shall be of 30 minutes duration to be held during the semester. The average of two tests shall be taken as the internal assessment marks. The remaining 10 marks of the Internal Assessment shall be based on Attendance and Skill Development Record of 05 marks each.

c. The marks based on attendance shall be awarded as given below:

76% to 80% = 02 marks.

81% to 85% = 03 marks.

86% to 90% = 04 marks.

91% to 100% = 05 marks.

d. Internal Assessment Marks for Practicals shall be awarded by the faculty concerned based on Syllabus for Practicals provided in each Semester.

### **XI. APPEARANCE FOR THE EXAMINATION**

a. A candidate shall apply for all the parts in each examination when he/she appears for the first time. A candidate shall be considered to have appeared for the examination only if he/she has submitted the prescribed application for the examination along with the required fees to the university.

b. A candidate who has passed any language under Part-Is shall be eligible to claim exemption from the study of the language if he/she has studied and passed the language at the corresponding level.

c. Further, candidates shall also be eligible to claim exemption from studying and passing in those commerce subjects which he/she has studied and passed at the corresponding level,

d. A candidate who is permitted to seek admission to this degree course on transfer from any other University shall have to study and pass the subjects which are prescribed by the University. Such candidates shall not however, be eligible for the award of ranks.

### **XII. MINIMUM MARKS FOR A PASS**

Candidates who have obtained a minimum of 40% marks in university examination (i.e. 28 marks out of 70 marks of theory examination) and 50% in aggregate (i.e., total of university examination and internal assessment marks) in each subject shall be eligible for a pass or exemption in that subject.

### **XIII. CLASSIFICATION OF SUCCESSFUL CANDIDATES**

1. The results of the First to Sixth semester degree examination shall be declared and classified separately as follows:
  - a. First Class: Those who obtain 60% and above of the total marks of parts I, II & III.
  - b. Second Class: Those who obtain 50% and above but less than 60% of total marks of parts I, II & III
  - c. Pass Class: Rest of the successful candidates who secure 40% and above but less than 50% of marks in part I, II & III.

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2. An eight point letter / alpha - sign grade as described below shall be adopted.

**Table I: Conversion of Percentage of Marks into Grade Points in a paper**

%Marks in a paper practical	Grade Point (GP)
96-100	10
91-95	9.5
86-90	9.0
81-85	8.5
76-80	8.0
71-75	7.5
66-70	7.0
61-65	6.5
56-60	6.0
51-55	5.5
46-50	5.0
41-45	4.5
40	4.0
Below 40	0

3. Ranks shall be declared on the basis of the aggregate marks obtained by the candidates in this degree course (excluding languages (part I) and non-core subjects (Part III) as a whole. However, only those candidates who have cleared each semester university examination in the first attempt only shall be eligible for award of ranks. The first ten ranks only shall be notified.
4. Grading system -A candidate shall be declared to have passed the UG program if he/she secures at least an aggregate SGPA/CGPA of 4.0 (or Course Alpha-Sign Grade P).

**Table I: Final Result / Grades Description**

An eight-point letter / alpha - sign grade as described below shall be adopted.

Semester / Program % of Marks	Semester GPA /Programme CGPA	Alpha-Sign Letter Grade	Result /Class Description
90.0-100	9.00-10.00	O (Outstanding)	Outstanding
80.0-<90.0	8.00-<9.00	A+ (Excellent)	First Class Exemplary
70.0-<80.0	7.00-<8.00	A (Very Good)	First Class Distinction
60.0-<70.0	6.00-<7.00	B+ (Good)	First Class
55.0-<60.0	5.50-<6.00	B (Above Average)	High Second Class
50.0-<55.0	5.00-<5.50	C (Average)	Second Class
40.0-<50.0	4.00-<5.00	P (Pass)	Pass Class
Below 40	Below 4.00	F (Fail)	Fail/Reappear
Absent	0	Ab (Absent)	

**XIV. MEDALS AND PRIZES:**

No candidates passing an external examination shall be eligible for any scholarship, fellowship, medal, prize or any other award.

**XV. TERMS AND CONDITIONS:**

- a) A candidate is allowed to carry-forward all the previous un-cleared papers to the subsequent semester/semesters.
- b) Such of those candidates who have failed/remained absent for one or more papers henceforth called as repeaters, shall appear for exam in such paper/s during any subsequent regular examination, within the maximum period prescribed for completing the programme. There shall be no repetition for internal assessment test.
- c) The candidate shall take the examination as per the syllabus and the scheme of examination in force during the subsequent appearances.
- d) In the event of any disputes or discrepancies, the aggrieved party jurisdiction of court is Bangalore

**XVI. PATTERN OF QUESTION PAPER:**

Each theory question paper shall carry 70 marks and the duration of examination is 3 hours. The Question paper shall ordinarily consist of three sections, to develop testing of conceptual skills, understanding skills, comprehension skills, articulation and application of skills. The question paper setter shall be asked to prepare TWO sets of papers with a maximum of 10% repetition.

The Question Paper will be as per the following Model:

SECTION-A 1. a,b,c,d,e,f,g,	(Conceptual questions) Answer any FIVE	(05 X 02 = 10 Marks)
SECTION -B: 2,3,4,5 6	(Analytical questions) Answer any THREE	(03 X 06 = 18 Marks)
SECTION-C: 7,8,9,10,11	(Essay type questions) Answer any THREE	(03 X 14 = 42 Marks)
<b>Total</b>		<b>70 Marks</b>

**XVII. PROVISION FOR IMPROVEMENT OF RESULTS:**

The candidate shall be permitted to improve the results of the whole examination or of any Semester or a subject within the prescribed time by the university after the publication of the results. This provision shall be exercised only once during the course and the provision once exercised shall not be revoked. The application for improvement of results shall be submitted to the Registrar (Evaluation) along with the prescribed fee.

**XVIII. REMOVAL OF DIFFICULTY AT THE COMMENCEMENT OF THESE REGULATIONS:**

If any difficulty arises while giving effect to the provision of these Regulations, the Vice Chancellor may in extraordinary circumstances, pass such orders as he may deem fit.

**B.B.A DEGREE (AVIATION MANAGEMENT)  
(CBCS -SEMESTER SCHEME) – 2020-21  
COURSE MATRIX**

**ANNEXURE – 1****FIRST SEMESTER – BBA - AVIATION MANAGEMENT**

Part	Subjects				Marks			Credits
Part I Languages	<b>Language I:</b> Kannada / Sanskrit / Urdu / Tamil / Telugu/Malayalam/ Additional English / Marathi /Hindi	1.1	4	3	30	70	100	2
	<b>Language II:</b> English	1.2	4	3	30	70	100	2
Part II Optional	Introduction to Airline Industry	1.3	4	3	30	70	100	2
	Principles of Accounting	1.4	4	3	30	70	100	2
	Mathematical and Logical Reasoning	1.5	4	3	30	70	100	2
	Airport and Airline Management	1.6	4	3	30	70	100	2
Part III	Practicals on Skill Development	1.8	2*	2	50**	50**	100	2
Part IV	Foundation Course*	-	2	2	30	70	100	2
	CC and EC*	-	-	-	50	-	50	1
<b>Total Credits</b>								<b>17</b>

**Practicals on Skill Development :**

\*Visit to Domestic Airport and collect information on the various departments, organizational Structure, facilities and functional areas and services, layout etc.

\*\*IA marks should be awarded on the basis of Practical Record submitted by the Student for 50 marks and Practical Examinations with Viva Voce conducted by the BOE for 50 Marks.



**SECOND SEMESTER – BBA AVIATION MANAGEMENT**

Part	Subjects				Marks			Credits
Part I Languages	<b>Language I:</b> Kannada / Sanskrit / Urdu / Tamil / Telugu/Malayalam/ Additional English / Marathi /Hindi	2.1	4	3	30	70	100	2
	<b>Language II:</b> English	2.2	4	3	30	70	100	2
Part II	Organizational Behaviour	2.3	4	3	30	70	100	2
	Airline Marketing	2.4	4	3	30	70	100	2
	Operations Research and Quantitative Techniques	2.5	4	3	30	70	100	2
	Aviation security and Safety Management	2.6	4	3	30	70	100	2
Part III	Practicals on Skill Development	2.7	2*	2	50**	50**	100	2
Part IV	Foundation Course*	-	2	2	30	70	100	2
	CC and EC*	-	-	-	50	-	50	1
<b>Total Credits</b>								<b>17</b>

**Practicals on Skill Development :**

\*Visit to Domestic or International Airline Company and submission of report on various managerial aspects.

\*\*IA marks should be awarded on the basis of Practical Record submitted by the Student for 50 marks and Practical Examinations with Viva Voce conducted by the BOE for 50 Marks.

**THIRD SEMESTER – BBA AVIATION MANAGEMENT**

Part	Subjects				Marks			Credits
Part I Languages	<b>Language I:</b> Kannada / Sanskrit / Urdu / Tamil / Telugu/Malayalam/ Additional English / Marathi /Hindi	3.1	4	3	30	70	100	2
Part II	Corporate Communication Skills	3.2	4	3	30	70	100	2
	Customer Relationship Management	3.3	4	3	30	70	100	2
	Airline Accounting	3.4	4	3	30	70	100	2
	Elements and Methods of Costing	3.5	4	3	30	70	100	2
	Environment Policy and Regulations	3.6	4	3	30	70	100	2
	Aviation Regulations	3.7	4	3	30	70	100	2
Part III	Practicals on Skill Development	3.8	2*	2	50**	50**	100	2
Part IV	Foundation Course*	-	2	2	30	70	100	2
	CC and EC*	-	-	-	50	-	50	1
<b>Total Credits</b>								<b>19</b>

**Practicals on Skill Development :**

\*Visit to Domestic Airport and preparation of a report on Traffic and Disaster Management.

\*\*IA marks should be awarded on the basis of Practical Record submitted by the Student for 50 marks and Practical Examinations with Viva Voce conducted by the BOE for 50 Marks.

**FOURTH SEMESTER – BBA AVIATION MANAGEMENT**

Part	Subjects				Marks			Credits
Part I Languages	<b>Language I:</b> Kannada / Sanskrit / Urdu / Tamil / Telugu/Malayalam/ Additional English / Marathi /Hindi	4.1	4	3	30	70	100	2
Part II	Entrepreneurship Management	4.2	4	3	30	70	100	2
	Corporate Accounting	4.3	4	3	30	70	100	2
	Costing Techniques	4.4	4	3	30	70	100	2
	Business Research Methods	4.5	4	3	30	70	100	2
	Travel and Tourism Management	4.6	4	3	30	70	100	2
	Logistics and Air Cargo Management	4.7	4	3	30	70	100	2
Part III	Practicals on Skill Development	4.8	2*	2	50**	50**	100	2
Part IV	Foundation Course*	-	2	2	30	70	100	2
	CC and EC*	-	-	-	50	-	50	1
<b>Total Credits</b>								<b>19</b>

**Practicals on Skill Development :**

\*Short term project on Air Travel and Ticketing Analysis

\*\*IA marks should be awarded on the basis of Practical Record submitted by the Student for 50 marks and Practical Examinations with Viva Voce conducted by the BOE for 50 Marks.

## FIFTH SEMESTER – BBA AVIATION MANAGEMENT

Part	Subjects				Marks			Credits
Part I	Aviation Resource & Services Management	5.1	4	3	30	70	100	3
	Income Tax	5.2	4	3	30	70	100	3
	International Financial Reporting Standards (IFRS)	5.3	4	3	30	70	100	3
	Legal Frame Work of Aviation Industries	5.4	4	3	30	70	100	3
	Cabin Crew Management	5.5	4	3	30	70	100	3
	Airline Finance and Insurance	5.6	4	3	30	70	100	3
Part II	Practicals on Skill Development - * <b>Mini Project</b>	5.7	-	-	--	100**	100	3
Part III	Foundation Course*	-	2	2	30	70	100	2
	CC and EC*	-	-	-	50	-	50	1
<b>Total Credits</b>								<b>24</b>

\* Mini Project on Airline Operations and Corporate Social Responsibility of an Airline company.

\*\*The Student has to submit a Project Report of at least 50 Pages. The Project carries 70 Marks for the Report and 30 Marks for Viva-Voce.

It shall be valued by B.O.E or faculty appointed by the BOE Chairman, and Viva-Voce shall be conducted by B.O.E or faculty appointed by the BOE Chairman.

\*\*\*Ability Enhancement Compulsory Course (AECC) – Pre-Placement Soft-skills Training ·The main objective of Pre-Placement Soft Skills Training is to make students prepare for corporate placements including placements in Aviation Industry.

·BBA Department has to conduct Soft Skills Training for the students of BBA for minimum of two hours per week.

### MARKS ALLOCATION:

- The Relevant marks to be awarded to the students on completion of the training. IA marks shall be awarded on the basis of Completion Certificate of Such Course (50 Marks), Pre-Placement VIVA- VOCE (50 Marks).
- The Institution to send the above marks scored by the candidate to BUB along with IA marks scored by them in the V semester.

**SIXTH SEMESTER – BBA AVIATION MANAGEMENT**

Part	Subjects				Marks			Credits
Part I Optional	Goods and Services Tax	6.1	4	3	30	70	100	3
	Air Traffic Control	6.2	4	3	30	70	100	3
	Air Port Strategic Planning	6.3	4	3	30	70	100	3
	Disaster Management	6.4	4	3	30	70	100	3
	Technological Trends in Aviation	6.5	4	3	30	70	100	3
	Financial Analysis and Reporting	6.6	4	3	30	70	100	3
Part III	Practicals on Skill Development- * <b>Dissertation on Airline</b>	6.7			---	100**	100	3
Part IV	Foundation Course*	-	2	2	30	70	100	2
	CC and EC*	-	-	-	50	-	50	1
<b>Total Credits</b>								<b>24</b>

\* Research based Dissertation on Airline / Airport Employees, Air Passengers, Travel Agents, Tour Operators, Service Providers, etc.

\*\* The Student has to submit Dissertation of at least 50 Pages. The Dissertation carries 70 Marks and 30 Marks for Viva-Voce.

It shall be valued by B.O.E or faculty appointed by the BOE Chairman, and Viva-Voce shall be conducted by B.O.E or faculty appointed by the BOE Chairman.

**\*\*\*PLACEMENT TRAINING**

·The main objective Placement Training is to make students prepare for corporate placements including placements in Aviation Industry.

·BBA Department has to conduct Placement Training for the students of BBA for minimum of two hours per week.

·The student should be trained in the areas of Personal Interview, Resume Preparation, E- Mail etiquette, Corporate etiquette and Work discipline.

**MARKS ALLOCATION :**

·The Relevant marks shall be awarded to the students on completion of the training. IA marks shall be awarded on the basis of Placement report (50 Marks), MOCK VIVA- VOCE (50 Marks)

·The Institution to send the above marks scored by the candidate to BUB along with IA marks scored by them in the VI semester.

**1.Foundation Course\* (Common for all programme):**

- Constitution of Indian and Human Rights
- Environment and Public Health
- Computer Applications and Information Technology
- Business Entrepreneurship and Management
- Philosophy, Psychology and Life Skills
- Personality Development and Leadership / Integrating Mind, Body and Heart
- Indian History, Culture and Diversity
- Research Methodology
- Education and Literacy / Science and Life
- Human Resource Development. Management
- One of the Foreign Languages such as German, French etc. •Any other Course prescribed by the University from time to time

**2.Co-Curricular and Extra – Curricular Activities (CC& EC\*):**

- A student shall opt for any one of the following activities in the first four semesters offered in the College
- ·N.S.S / N.C.C./Rotary Activities / Rovers and Rangers
- ·Sports and Games / Activities related to Yoga
- ·A Small project work concerning the achievements of Indian in different fields
- ·Evolution of study groups/seminar circles on Indian thoughts and ideas
- ·Interaction with local communities in their neighborhood and learn about and from them
- ·Exploring different aspects of Indian civilizations
- ·Other activities such as Cultural Activities as prescribed by the University.
- Evaluation of Co-and Extra Curricular Activities is as per the procedure evolved by the University from time to time.

### **1.3 INTRODUCTION TO AIRLINE INDUSTRY**

**Objectives:** Understanding about the airline industry and its regulatory bodies, Understanding the characteristics of Airline Industry and its characteristics, Understanding the organisational structure of the airline industry, Understanding the security, navigation and traffic control and Understanding the importance of safety and security.

#### **UNIT 1: GENERAL INTRODUCTION OF AVIATION 10Hrs**

Aviation – Introduction - Meaning & Genesis of Aviation - Aviation Terminology - Regulatory Bodies – DGCA, BCAS, ICAO, IATA - IATA Phonetics - Airport and Airline Codes - World Time Zone - Land side and Airside – Areas – Terminal Building – Apron – Runway

#### **UNIT 2:– INTRODUCTION TO AIRCRAFT SCIENCE 10Hrs**

History of Aircraft-Difference between Aircraft and Airplane-List of Civil Aircraft Manufacturing Companies – Classification of Airplanes-Physical Description of an Aircraft- Basic Science behind the Flight-Mechanics of the Flight-Parts of an Aircraft with definitions.

#### **UNIT 3: PASSENGER SERVICES AT TERMINAL BUILDING 12 Hrs**

Reservation – Meaning – Procedures – Check in – Meaning – Seating Procedures of an Airline – Exit Row Seating Procedures -X-Ray Screening of Baggage Procedure – Types of Passengers and Handling Procedure – Expectant Mother Handling Procedures – Handling Procedure for Infant, Minor, Physically Incapacitated Person – Ambulatory Passenger – Non Ambulatory Passenger – Wheel Chair Passenger – Types of Wheel Chair Passengers – Disruptive Passenger Handling Procedure – Mentally Disabled Passenger Handling Procedure -Handling of CIP,VIP & VVIP-Co- ordination of Supporting Agencies /Departments. Boarding Gate – Procedure – Arrival Terminal Procedure – Property Irregularity Report ( PIR) – Meaning

#### **UNIT 4: PASSENGER SERVICES AT RAMP 12Hrs**

Ramp Handling Procedure, –Baggage Make up Area – Meaning – Procedure – Passenger Reconciliation - Meaning, Baggage Reconciliation - Meaning, Gate Know Show (GNS)-Procedure, Flight Cancellation and Denied Boarding Compensation Procedures – Death During Flight – Handling Procedure – Handling Procedure for Blind Passenger – Annexure for Passenger Handling Arrival Ramp Procedure- Meaning

#### **UNIT 5: Ramp Safety and Handling Procedures & Civil Aviation Requirement (CAR) 12 Hrs**

Introduction – Meaning – Operating Service Doors and Panels – Securing the Aircraft - Ramp Officer Check sheet – Ramp Safety – Meaning – Handling Procedures - Types of Accidents at Ramp -Accident to Passengers – Accident to Personnel – Damage to Aircraft – Damage to Ground Equipment and Vehicle – (Beacon – Cones)- Personnel Protection on the Ramp – Propeller Safety – Thrust Reversers – Aerial and other Protrusions – Driving on the RAMP – Foreign Object Debris (FOD) – Ramp Markings – Service Roads – No Parking Areas –

Equipment Parking Areas – Safety DO's and DON'T's – Aircraft Guiding Procedures – Baggage/Cargo Loading and Offloading Procedures – Catering Uplift Procedure – Aircraft Arrival Procedure – Aircraft Departure Procedure – Fuelling General Procedures and Precautions – Pushing and Towing of Aircraft – CAR – Meaning-Regulatory Authority– Compliance Requirement

## **SKILL DEVELOPMENT:**

1. Assignment- A study of Aviation History
2. Make a chart on Basic Flight Mechanics and Types of Aircrafts (Any two)
3. Case study on passenger death- (Inflight/Terminal/Ramp)
4. Make a PPT on Roles and Responsibilities of Terminal Staff

## **REFERENCE BOOKS:**

1. Airport and Airline Management by FlySky Aviation, Edition 2020.
2. International Air Transport Association (IATA); 1st Edition edition (14 April 2011)
3. Airport planning and management by Seth B. Young



**1.4 PRINCIPLES OF ACCOUNTING**

**Objectives:** To enable the students to acquire knowledge of Accounting principles, Conventions, Concepts and practice

**UNIT – I****08 hrs**

Basic Accounting concepts and Conventions-Theoretical Framework (meaning, scope and usefulness of Accounting; Generally Accepted Accounting Principles, Concepts and Conventions), Capital and Revenue transactions- capital and revenue expenditures, capital and revenue receipts - Kinds of Accounts – Financial Accounting vs. Cost Accounting - Financial Accounting vs. Management Accounting. Accounting Standards –List of Indian Accounting Standards

**UNIT - II****12hrs**

Trial balance - Errors – types of errors - Rectification of errors – problems -Opening Entries, transferring entries, Adjustment entries and Closing Entries Bank reconciliation statement – problems. Accounting for depreciation – methods of depreciation – problems (straight line method and written down value method only)

**UNIT - III****14hrs**

Manufacturing and Aviation - Trading - Profit & Loss Account - Balance sheet. – Problems with simple adjustments. Accounting treatment of bad debts, reserve for bad and doubtful debts, provision for discount on debtors and provision for discount on creditors.

**UNIT - IV****12hrs**

Accounting for non-trading institutions-(i) Preparation of Receipts and Payments (ii) Account; Preparation of Income and Expenditure Account (iii) Preparation of Balance Sheet

**UNIT-V****14hrs**

Preparation of accounts from incomplete records. Double Entry Book Keeping – Rules of Double Entry System – Preparation of Journal and Ledger Accounts- problems - Subsidiary books - cash book – types of cash book -problems - purchase book - sales book - sales return and purchase return books. Conversion of single entry to double entry system.

## **SKILL DEVELOPMENT:**

- 1 Prepare a list of items under revenue and expenditure account.
- 2 Prepare a chart of Errors and its types
- 3 Collecting Balance Sheet of Companies and identify entries in trading and P/L A/c and balance Sheet
- 4 Collecting invoices from Traders and Preparing subsidiary books according to the invoices

## **REFERENCE BOOKS**

1. Grewal, T.S. : Double Entry Book Keeping
2. Jain and Narang : Advanced Accountancy
3. Accounting for Managers – J. Made Gowda – Himalaya Publishing House
4. Introduction to Accountancy – T. S. Grewal & S. C. Gupta – S. Chand – 8th Edition
5. Modern Accountancy - Hanif Mukerji – TMH
6. Financial Accounting by Dr. Kaustubh Sontake – 1st Edition – Himalaya Publishing House
7. Shukla and Grewal : Advanced Accountancy
8. Gupta and Radhaswamy : Advanced Accountancy
9. Gupta R.L.: Advanced Accountancy B.B.M -Services Management
10. Dr. S.N. Maheswari: Financial Accounting, Vikas Publications
11. S P Jain and K. L. Narang: Financial Accounting- I, Kalyani Publishers
12. Anil Kumar, Rajesh Kumar and Mariyappa – Financial Accounting, HPH.

**1.5 MATHEMATICS AND LOGICAL REASONING****OBJECTIVE:**

The aim of this course is to introduce to student the basic concepts of mathematics and enable the students to acquire knowledge of logical reasoning and their application to commercial situations and for decision making in business.

**UNIT 1: NUMBER SYSTEM AND RATIOS****08 Hrs**

Number System: Introduction-Natural Numbers - Even Numbers – Odd Numbers – Integers – Prime Numbers– Rational & Irrational numbers, Real Numbers, HCF & LCM (Simple problems). Ratios- Ratios and proportions, duplicate- triplicate and sub-duplicate of a ratio. Proportions: third, fourth and inverse proportion- Problems.

**UNIT 2: THEORY OF EQUATIONS AND MATRICES****14 Hrs**

Theory of Equations: Meaning – Types of Equations – Simple, Linear and Simultaneous Equations (Only two variables) Eliminations and Substitution Method only. Problems on Commercial Application. Matrices: Types- Addition- Subtraction- Multiplication of Matrices, Inverse of a Matrix. Determinants-Minor of an element- Cofactor of an element- Solving system of equations by Cramer’s Rule (Two variables only).

**UNIT 3: TIME VALUE OF MONEY****10 Hrs**

Simple Interest- Compound interest-Effective Rate of Interest-Present Value-Net Present Value-Future Value- Perpetuity-Annuities - Calculating of EMI-Calculations of Returns- Nominal Rate of Return-Effective Rate of Return (Simple Problems).

**UNIT 4: PERMUTATIONS, COMBINATIONS AND PROBABILITY****12 Hrs**

Basic concepts of Permutations and Combinations: Introduction, the Factorial, Permutations, results, Circular Permutations, Permutations with restrictions, Combinations with standard results (Simple Problems). Probability: Introduction- Random Experiment -Definition of Probability-Conditional Probability -Random Variable- Probability Distribution-Expected Value of a Random Variable (Simple Problems).

**UNIT 5: LOGICAL REASONING****12 Hrs**

Types of reasoning-Number Series, letter series- Codes and Blood Relationships- Direction Tests- Seating Arrangements (Basic and Advance Problems).

**Skill Development:**

1. Representing Number System through Mind Mapping Techniques

**BOOKS FOR REFERENCE:**

1. Sanchethi and Kapoor: Business Mathematics, Sultan Chand
2. Dr. Alice Mani: Quantitative Methods for Business - II, SBH.
3. P.R. Vittal - Operations Research
4. A.Lenin Jothi : financial Mathematics, HPH.
5. Ranganath: Business Mathematics, GK Publications, Mumbai.
6. R. Selvaraj, Quantitative Methods in Management, Excel Books.
7. Zamarudeen: Business Mathematics, Vikas Publishers.
8. 7 Lectures – Quantitative Methods for Business – I, HPH
9. P.R. Vittal - Business Mathematics and Statistics.

**1.6 AIRPORT AND AIRLINE MANAGEMENT**

**Objectives:** To provide the knowledge of airport planning, management and operations that is required to begin an airport management career.

**UNIT 1: INTRODUCTION****10Hrs**

Development of Air transportation in India-Major players in Airline Industry-Swot analysis in Airline Industry-Market potential of Indian Airline Industry—Current challenges in Airline Industry-Completion in Airline Industry

**UNIT- II AIRPORT MANAGEMENT****12Hrs**

Airport planning-Types of Airports(International Hubs, Regional Hubs, Individual Airports)Airport Operations, Organizational Structure of an Airport, Airport – General Layout, Airport – Planning and Development (Airport designing, Planning an Airport, Airport Development)Airport authorities-Global and Indian scenario of Airport management

**UNIT - III AIR TRANSPORT SERVICES****12Hrs**

Environment regulations-International trends-Regulatory issues-Emerging Indian scenario-PPP-Public Private Participation in Indian Airports-Environmental regulations-Private participation in International developments- Metrological Department – Cargo Warehouse – CISF (Central Industrial Security Force) Control Room.

**UNIT IV ARRIVAL PROCEDURES****10 Hrs**

Baggage Reclaim – Role of Baggage Service Unit – Mishandled Baggage – Meaning - Handling Procedure for Mishandled Baggages – Baggage Tracing System – General Baggage Liability Limitations and Service Policy of Airline – Pilferage – Meaning - Procedure to Deal with Pilferage – Standard Operating Procedures (SOP) to handle passenger during Baggage Mishandled Baggage, Damage and Pilferage – Rush Tag - Meaning – Unclaimed Baggage – Meaning – Standard Operating Procedure to Handle Unclaimed Baggage – Lost Baggage – Misrouted Baggage – Meaning – Standard Operating Procedure to handle Lost Baggage and Misrouted Baggage – Security Removed Article (SRA)–Meaning – Procedure to deal with Security Removed Article – FIDS (Flight Information Display System) – Meaning.

**UNIT 5: GROUND SUPPORT EQUIPMENT (GSE)****12 Hrs**

Handling of CIP,VIP & VVIP-Co-ordination of Supporting Agencies /Departments. Ground Support Equipment (GSE) – Meaning – Meaning – Type of GSE's – Chocks Trestles – Air Cart – Dollies – Ladders – Belt Loader – Catering Truck -Hi lift Vehicle – Container Loader – De-Anti Icing Vehicles -

Coaches – Tractor – Trolleys – Pushback Vehicle – Ground Power Unit ( GPU) – Air Conditioning Unit ( ACU) – Toliet Cart – Water Cart

## **SKILL DEVELOPMENT:**

1. A Case Study on Handling Passenger during Baggage Mishandled/Damaged
2. Assignment on New Emerging Trends in Indian Airline Industry.
3. Chart on Organisational structure of Airport/ Airport General Layout.

## **REFERENCE BOOKS:**

1. Airport and Airline Management by FlySkyAviation, Edition 2020.
2. Airports Systems by Richard de Neufville

**2.3 ORGANISATIONAL BEHAVIOUR**

**Objective:** To enable the students to acquire knowledge of organizational behaviour.

On successful completion of this paper, the students creates the interest in people , their behaviour , understanding minds of the people, Motivation, Job-satisfaction, Perception, Handling stress, morale, Group dynamics, Leadership traits, Counselling ,understanding of proven models & theories helps to improve organisation productivity.

**UNIT - I Introduction to Human Behaviour and organisational psychology 10 Hrs**

Meaning, Definition, Importance and need of the human behaviour. Aims and scope of organisational psychology. Individual differences - Intelligence tests - Measurement of intelligence - Personality tests - nature, types and uses.

**UNIT – II Motivation and Job satisfaction 14Hrs**

Motivation – theories : Maslow's needs hierarchy, Alderfer's ERG theory, McClelland's achievement motivation and Herzberg's two-factor theory. The main process theories are: Skinner's reinforcement theory, Victor Vroom's expectancy theory, - financial and non- financial motivation - techniques of motivation, Job satisfaction meaning - factors - Management of job satisfaction - Morale importance - Employee attitude and behaviour and their significance to employee productivity - job enrichment - job enlargement.

**UNIT - III Perception and Stress 10Hrs**

Factors affecting perception - components involved in perception—the perceiver, the target, and the situation. Stress concepts, types of stress , frustration – Freudian concept of mind : conscious, preconscious and unconscious, structure of mind : Id, Ego and Superego.

**UNIT – IV Hawthorne Experiment and Douglas McGregor’s Theory 10Hrs**

Importance - Group Dynamics - Cohesiveness – Co-operation competition - conflict - Types of Conflict – Resolution of conflict - Group norms - Role – Status.

**UNIT - V Organisational Effectiveness 12Hrs Types**

- theories – Trait, Managerial Grid - Fiedler’s contingency – Training : Personality development , communication- Organisational culture, Organisational change - organisational effectiveness – organisational innovations : Weber’s model - organisational development - counselling and guidance - Importance of counsellor- types of counselling - merits of counselling.

**UNIT - VI Case Studies (Minimum 4) – Issues and Solutions 4Hrs**

## **Skill Development**

1. List out the motivational factors for an employees
2. D/B Job enrichment and Enlargement and list out the requirement of both the Job

## **REFERENCE BOOKS**

1. Keith Davis - Human Behaviour at Work
2. Ghos - Industrial Psychology
3. Fred Luthans - Organisational Behaviour
4. L.M. Prasad - Organisational Behaviour
5. Hippo - Organisational Behaviour
6. Patrick Sills – The Behavioural Sciences
7. The Guardian – Job Satisfaction
8. Stephen P Robbins – Organisational Behaviour

**2.4 AIRLINE MARKETING**

**Objective:** To enable the students understand the principles of Marketing and the ways in which these principles can be applied in today's airline industry, the air transport market and its environment.

**UNIT 1: INTRODUCTION****12 Hrs**

Marketing conceptual frame work - Marketing environment - customer oriented organization - marketing interface with other functional areas marketing in a globalised environment  
Marketing Mix - Stages in the Application of Marketing Principles to Airline Management.

**UNIT 2: MARKET OF AIR TRANSPORT SERVICES****12 Hrs**

Customer - Definition - Apparent and True Needs - Industrial Buying Behaviour - Customer in the Business Air Travel Market - Customer in Leisure Air Travel Market - Customer in the Air Freight Market - Market Segmentation in Air Passenger & Air Freight Market - Marketing Environment - Theoretical Basis of PESTLE Analysis - Building Customer Satisfaction.

**UNIT 3: PRODUCT ANALYSIS IN AIRLINE MARKETING****12 Hrs**

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 - Uniform and Differential Pricing - Distribution Channel Strategies - Travel Agency Distribution System - Global Distribution System - promotion methods. Advertisement and personal selling, public relations.

**UNIT 4: MARKETING RESEARCH****10 Hrs**

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 - sample case studies.

**UNIT 5: INFORMATION TECHNOLOGY IMPACT ON MARKETING DECISIONS****10 Hrs**

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

**SKILL DEVELOPMENT:**

1. A group discussion Session on Promotional Activities of Domestic Airlines
2. Make a ppt on Marketing Strategies of Domestic Airlines



3. Group Assignment on New Marketing Trends emerging in Airline Industry

**REFERENCE BOOKS:**

1. Airline Marketing and Services Management by FlySky Aviation, Edition 2020.
2. Stephen Shaw " Airline Marketing and Management " Ashgate Sixth Edition.
3. Philip Kotler: Marketing management (Millennium edition), prentice hall of India P (ltd), New Delhi 2001.
4. Micheal R. Czinkota & Masaaki Kotabe, Marketing management, Vikas Thomson learning 2000.

**2.5 OPERATIONS RESEARCH AND QUANTITATIVE TECHNIQUES**

**OBJECTIVE:** The objective is to provide basic knowledge of quantitative methods and their commercial application for decision making in business. To help students, apply these tools in managerial decision making.

On successful completion of this course, the students should have understood Operations Research Models Game theory, Queuing theory, PERT, CPM, etc.

**GOAL:** To enable the students to learn the techniques of Operation Research and their applications in business management.

**OUTCOMES:** The students must develop confidence and clarity in application of tools

**UNIT-I (10 Hours)**

Introduction to Operations Research: Meaning - Scope – Models - Limitation. Linear Programming - Formulation – Application in Management decision making (Graphical method only)

**UNIT - II (12 Hours)**

Transportation: Importance, terminologies used, different methods for finding Initial basic feasible solution; (Non- degenerate only) Assignment problems - Importance and characteristics of assignment problem, Simple Problems only

**UNIT - III (14 Hours)**

Game Theory: Queuing theory - Types, pure and mixed strategies with two people zero sum game, principle of dominance. Graphical Solution –  $mx2$  and  $2xn$  type. Solving game by Dominance property - fundamentals - Simple problems only. Replacement problem – Replacement of equipment that deteriorates gradually (value of money does not change with time)

**UNIT - IV (12 Hours)**

CPM - Principles - Construction of Network for projects – Types of Floats – Slack- crash programme.

**UNIT -V (12 Hours)**

PERT - Time scale analysis - critical path - probability of completion of project - Advantages and Limitations.

**Note: Theory and problem shall be distributed at 20% and 80% respectively.**

**Skill Development**

1. Construction of Team and Assigning Roles and Responsibility
2. Assigning Projects and instructing them to minimize cost and time.
3. Critical Thinking, Time Management

**REFERENCE BOOKS**

Kanti Swarup, Gupta R.K. - Operations Research

P.R. Vittal - Operations Research

Gupta S.P. - Statistical Methods.

Sanchethi and Kapoor: Business Mathematics, Sultan Chand

C.S Mujawar : Statistics for Managers I.K. International Publishers

Dr. Alice Mani: Quantitative Methods for Business - II, SBH.

## 2.6 AVIATION SECURITY & SAFETY MANAGEMENT

**OBJECTIVE:**To familiarize the students with an understanding of Safety Management System, flight safety, Human factor and other key safety issues involved the aviation industry.

### **UNIT 1: INTRODUCTION TO SAFETY MANAGEMENT SYSTEM**

**10 Hrs**

Safety Management System (SMS) – Meaning and Definition - A National security asset: importance of Air transportation – Airways – Deregulation – Consequences of 9/11 to the industry – Protecting Public Air transportation. Hijacking – Security Measures – International Prospective – Trend begins – Aviation regulations – Airport security – New Carrier rules – New Airport Operator rules – Public Law 93 – 366 – threat warnings – Aviation Security Improvement Act of 1990 – Civil Aviation Security – Crimes against Humanity – Convention – Tokyo – Hijacking , Montreal- Bonn Agreement – Diplomatic Conference on Air Law –Annex 14-ICAO

### **UNIT 2: SAFETY MANAGEMENT SYSTEM (SMS) REGULATORY AUTHORITY**

**12 Hrs**

Safety -Meaning – Safety policy of Airlines in India - Regulatory Authority – DGCA ,Role of DGCA in (Safety Management System) SMS- Distribution list of Safety Management System Manual – Scope of Safety Management System – Acceptable level of safety – Target Audience – Purpose – Safety Performance Indicators – Safety Performance Targets – Regulatory Compliance DGCA CAR Section 1, Series C, Part I & ICAO Safety Management System Manual - Safety policy and Objectives – Safety Accountability and Responsibilities – SMS Organizational Arrangements – Safety Responsibilities of Accountable Manager – Safety Manager – HOD – All Managers – Employees – Safety Review Committee – Safety Action Group – Coordination of Emergency Response Planning – SMS Documentation Control Procedures – SMS Library – SMS Manual Requirement – SMS Implementation Plan – GAP Analysis

### **UNIT 3: WEIGHT AND BALANCE/LOAD AND TRIM**

**10 Hrs**

Introduction – Meaning – Importance of Load and Trim Sheet – Regulatory Requirement – Weight, Balance , Centre Of Gravity, Centre of Pressure – Meaning - General Description of Aircraft – Phases of Flight – Preparation of Weight Schedule – Approval of Weight Schedule - Standard Weight of Flight Crew and Passengers – Instructions for Safe Loading – Procedure for Preparing Load and Trim Sheet – Important Features of Load and Trim Sheet – Qualification , Duties and Responsibilities of Load and Trim Officer – Aircraft Handling Personnel – Responsibilities and Qualifications – Safety Precautions During Aircraft Fuelling – Action During Fuel Spillage.

**UNIT 4: NATIONAL CIVIL AVIATION SECURITYPROGRAMME (NCASP) & SECURITY SCREENING PROCEDURE (CAR) 14 Hrs**

Meaning - Aircraft Rules 2011 – International Legislations – Hijacking- Anti Hijacking Measures – Measures against Terrorist – Terrorism- Hijacking incidents in the world – Access Control – Staff – Passenger - Purpose – Points – Access Control of Vehicles – Landside Security – Landside Security Measures – Convention 1991 – Personal Security Officer of VVIP & VIP or high risk Category – SPG (Special Protection Groups) of President, Vice President, Prime Minister – Sports Person. X-Ray Baggage Inspection System (X-BIS) – Introduction – Types of X-BIS– Top Down Beamer – Down top Beamer –SideBeamer– Methods of Screening – Hand Held Metal Detector (HHMD) and Door Frame Metal Detector(DFMD) – Meaning – Screening Procedure – Detection Requirement – Method of Search – Advantages and Disadvantages – Procedure for Carriage of Prisoner – Catering Screening – Behaviour Detection and Profiling – Meaning – Suspicious Signs – Tools for Behaviour Detection – Explosive Vapour Detector(EVD) and Explosive Trace Detector (ETD) – Meaning – Testing Procedure – Specifications – Advantages and Disadvantages.

**UNIT 5: DANGEROUS GOODS 10 Hrs**

Introduction – Meaning – definition – Scope – Regulation for Safe Transportation – Categories – Classification of Dangerous Goods – Hidden Dangerous Goods – Storing and Loading of Dangerous Goods – Loading Restrictions for Dangerous Goods on Passenger Aircraft – Different types of Dangerous Goods Carried by Passengers – Handling Loading and Unloading Dangerous Goods – Radio Active Material – Magnetised Material – Dry Ice – Wheel Chair – Notification to Pilot In Command (NOTOC) – Safety Procedures – Emergency Procedures – Accident and Incident Reporting Procedures – IMP Codes for Dangerous Goods.

**SKILL DEVELOPMENT**

1. Assignment on 9/11 Terrorist Attack on WTC
2. A case study on IC 814
3. Make a chart on Classification of Dangerous Goods

**REFERENCE BOOKS:**

1. Ground handling Services Management by FlySky Aviation, Edition 2020.
2. General Aviation Security by Daniel J Benny
3. Aviation Security Management by Andrew R Thomas.

### **3.2 CORPORATE COMMUNICATION**

#### **SKILLS UNIT:1 Elements of Communication**

Meaning, Importance, Objectives, Principles of communication, Process of communication, impediments of effective communication, strategies for effective communication, Barriers to Communication. Types and forms of communication, nonverbal communication – body language, gesture, postures, Facial expression, dress code. The Cross Cultural dimensions of Business Communication, Listening and Speaking, Observation, Business and Social Etiquette.

#### **UNIT: 2 Public Speaking**

Meaning and importance of Public speaking and speech composition – principles of effective speaking presentations technical speeches and non-technical presentations. Speech for Introduction of a speaker speech for vote of thanks – occasional speech, Use of technology

#### **Unit:3 Interview Techniques**

Meaning and Importance of interviews, art of conducting and giving interviews, types of interviews- Placement interviews- Discipline interviews- Appraisal interviews- Exit interviews

#### **UNIT: 4 Meetings**

Meaning and importance of meetings- Essentials of Valid Meeting, opening and closing of meetings- participating and conducting Group discussions, Brain Storming, E-meeting, Preparing Agenda and Minutes of the Meeting.

#### **Unit: 5 Business Communications**

Business letters, Inquires, Circulars, Quotations, Orders, Acknowledgement Executions, Complaints, Claims, Collection letter, Banking Correspondence, Agency Correspondence, Bad news and Persuading letters, Sales Letters, Job Application Letters- Bio-data, Covering letter, Interview Letters, Letter of Reference, Memos, Minutes, Circulars and Notice.

#### **Skill Development**

1. Conducting Mock Interviews
2. Conducting Brain Storming Sessions.
3. Preparing Resume/CV
4. Activities on Listening Skills
5. Preparation of Business Letters

#### **Books for References**

1. Murphy, Effective Business Communication, Mc Graw-hil.
2. Penrose. Rasberry and Myers, “Business Communication for Managers”, Cengage Learning.
3. Disanza, “Business and Professional Communication”, Pearson Publication.
4. M.K Sehgal “Business Communication” Excel books India 2008.
5. R.C Bhatia, “Business Communication Ane's student edition”, And books India 2008.

### **3.3 CUSTOMER RELATIONSHIP MANAGEMENT**

#### **OBJECTIVE:**

To enable the Students to learn the Airline Customer Service and Techniques to Handle Customer and Complaints.

#### **UNIT-1: INTRODUCTION**

**10 Hrs**

Introduction – Customer Service – A better standard of Customer Service – Airline Industry Changes – Airline Deregulation – Global Alliances – The Rise of Low Cost Carrier – The Role of the Internet – Airline Industry Challenges – Customer Service in the Age of the Customer – Age of the Customer – Customer Service as a Key Differentiator – Operational Excellence – The Customer Centric Culture – Mission Statement – Airline Customer Service – On the Front Line – Duties and Responsibilities of Front Line Staff – What is a Customer – The High Cost of Losing a Customer – Customer Expectations of Service – What is Customer Service – The Peripheral Services – Objectives of Customer Service - Benefits of Customer Service

#### **UNIT – 2 NEW TRENDS IN CUSTOMER SERVICE**

**12 Hrs**

New Trends in Customer Service – The Always Connected Customer – Mobile Commerce – The Social Customer – Multi Channel Customer Service – Internet Channels – Mobile Channel – Social Channel – Cross Channel – Customer Relationship Management (CRM) – Customer Knowledge – Customer Service Points - Call Centers vs Contact Centers – Airport Customer Service – Inflight Customer Service – Customer Perception – Communication and its Meaning – Communication Barriers – Removing Barriers to Communication – Advantages of Two Way Communication – Getting and Receiving Feedback – listening – The Benefits of Listening – Barriers to Effective Listening – Listening Skills – Listening Habits :Positive and Negative – Listening and Customer Service – Non Verbal Communication – Aspects of Non Verbal Communication .

#### **UNIT – 3: Customer Contact Techniques & Social Systems and Tact :Cross Cultural Awareness**

**12 Hrs**

Customer Contact Techniques – Making a Good First Impression – Self Presentation Skills – Preparing to receive the Customer – Steps to receive the Customer – Telephone Communication – How to Answer the Telephone – Hints for Developing Better Telephone Listening Skills – Email Etiquette – Handling Common Questions from Customers – Communication with Customers through Social Media – How Airlines are Using Social Media – Responding to Customer Complaints through Social Media –

Social System and Tact : Cross Cultural Awareness – The Importance of Self Awareness – Personality – Assertive vs Responsive Behaviours – What is Your Social Style? – Characteristics of the Four Social Styles – Social Style and Customer Service – Identifying a Customer’s Social Service – Flexing Strategies – Cross Cultural Awareness – What is Culture – Cultural Differences – The Importance of Cross Cultural Awareness

**UNIT- 4: Dealing with Complaints****10 Hrs**

Dealing with Complaints – Lack of Complaints – Why do Customer Complain – Developing a Customer Service Strategy – Legitimate vs Illegitimate Complaints – Preventing Complaints – How to Handle Complaints effectively – The Five Types of Customer who complain and How to Handle them – The Complaints System – Dealing with Disengagement – Handling Customer Aggression as as Airline Employee

**UNIT- 5: Managing Stress and Pressure****12 Hrs**

Managing Stress and Pressure – The Difference Between Stress and Pressure – What is Stress – Sources of Stress – Consequences of Stress on Physical Health – Chronic Stress – Burnout – Recognizing Stress – Reacting Positively Towards Stress – Reducing Stress – Healthy Workplaces – Coping with Shift Work and Overtime – Working in a Unionized Organization – Dealing with the Irregular Operations of an Airline -Maintaining a Healthy Back

**Skill Development**

1. A Case Study on Customer Misrouted Baggage
2. Write an Essay on New trends in Airline Customer Service
3. Conduct a GD on Stress Management

**Books for reference**

1. Airline Marketing and Services Management by Flysky Aviation Edition 2020
2. Customer Relationship Management by Shanmugam Sundaram / V Kumar /Werner Reinartz

### 3.4 AIRLINE ACCOUNTING

**OBJECTIVE:** To enable the Students to learn and understand the Airline Accounting and Financial Procedure.

**UNIT1:INTRODUCTION (10Hrs)**

Financial Performance of Airline Industry – Introduction – Deregulation – Airline Industry Before and After Deregulation – Airline Profitability – Airline Mergers and Bankruptcies – Financial Statement Analysis –

**UNIT – 2: ACCOUNTING ANALYSIS (12 Hrs)**

Statement of Retained Earnings – Analysis of Financial Ratios – Asset Management Ratios – Profitability Ratios – Airline and Aviation Based Ratios – Time Value of Money – Present Value – Future value – Annuity - Amortization

**UNIT- 3: ANALYSIS AND LEASING (10 Hrs)**

Depreciation Analysis – Methodology – Using Spreadsheet for Depreciation Practices – Analysis for Break Even and Payback Period – Breakeven analysis – Breakeven Load Factor – Scenario Analysis – Aircraft Leasing – Types of Leases – Buy Versus Lease Analysis – Major Commercial Leasing Companies

**UNIT- 4: FUEL HEDGING AND STRUCTURE 12 Hrs**

Fuel Hedging – Financial Derivatives – Airline Industry and Fuel Hedging – Futures Market – Forward Market – Option Contracts

**UNIT- 5: AIRLINE COST STRUCTURE 12 Hrs**

Airline Cost Structure – Cost Component – Operating Costs – Cost Cutting Measures – Low Cost Airlines – Business Model – Growth – Reason for Success – Cost Structure

**SKILL DEVELOPMENT:**

1. A Research Study on Leasing Aircrafts from Foreign Countries
2. Assignment on Pricing Strategies of any Domestic Airlines
3. Write an essay on Future Market of Aviation Industry.

**REFERENCE BOOKS:**

1. Airline Accounting and Financing by FlySky Aviation, Edition 2020.
2. IATA FINANCIAL MANAGEMENT
3. Aircraft Leasing and Financing: Tools for Success in International Aircraft by By Vitaly S. Guzhva, Sunder Raghavan, Damon J. D’Agostino



**3.5 ELEMENTS AND METHODS OF COSTING**

**Objectives:** To acquaint the students with different perceptions of the elements of cost and costing techniques

**Unit -1 INTRODUCTION AND RECENT TRENDS IN COST ACCOUNTING 14 Hrs**

Meaning and Definition of Cost, Costing and Cost Accounting – Scope of Costing Accounting - Objectives of Costing – Pros and Cons of Costing - Comparison between Financial, Management and Cost Accounting - Installation of Cost Accounting System. Cost concepts and classifications – Cost Units – Cost Center – Elements of Cost – Preparation of Cost Sheet (Practical Problems) –

**Recent Trends in Cost Accounting:** Cost Control and Cost Reduction – Target Costing – Value chain analysis – Activity based costing – Lifecycle cost analysis – Kaizen Costing – Enterprise resource planning – Cost audit

**Unit 2. RECONCILIATION OF COST AND FINANCIAL ACCOUNTING 6 Hrs**

Need for Reconciliation – Reasons for differences in Profit or Loss shown by Cost Accounts and Profit or Loss shown by Financial Accounts – Preparation of Reconciliation Statement and Memorandum Reconciliation Account.

**Unit 3 ELEMENTS OF COSTING – MATERIAL 12 Hrs**

Meaning – Types: Direct Material, Indirect Material. Material Control – Purchasing Procedure – Store Keeping – Techniques of Inventory Control – Levels settings– EOQ – ABC Analysis – VED Analysis – Just In-Time – Perpetual Inventory System – Documents used in Material Accounting - Methods of Pricing Material Issues: FIFO, LIFO, Weighted Average Price Method and Simple Average Price Method - Problems.

**Unit 4 ELEMENTS OF COSTING – LABOUR 12 Hrs**

**Meaning – Types: Direct** Labour, Indirect Labour - Timekeeping – Time booking – Idle Time – Overtime – Labour Turn Over. Methods of Labour Remuneration: Time Rate System, Piece Rate System, Incentive Systems (Halsey plan, Rowan Plan & Taylor’s differential Piece Rate System) – Problems

**Unit 5 ELEMENTS OF COSTING – OVERHEAD 12 Hrs**

Meaning and Definition – Classification of Overheads – Procedure for Accounting and Control of Overheads – Allocation of Overheads – Apportionment of Overheads – Primary Overhead Distribution Summary – Secondary Overhead Distribution Summary – Repeated Distribution Method and

Simultaneous Equations Method – Absorption of Factory Overheads – Methods of Absorption (Theory Only)– Machine Hour Rate – Problems on Machine Hour Rate.

**Skill Development:**

- Identification of elements of cost in services sector by Visiting any service sector.
- Cost estimation for the making of a proposed product.
- Collection and Classification of overheads in an organization on the basis of functions.
- Compilation of various cost documents of any business entity.

**Reference Books :**

1. J Made Gowda , Cost and Management Accounting HPH
2. M.V. Skukla , Cost and Management Accounting
3. N.K. Prasad, Cost Accounting HPH
4. M.L. Agarwal, Cost Accounting
5. S.P. Jain & Narang, Cost Accounting , Kalyani
6. M.N. Arora Cost Accounting HPH

**3.6 ENVIRONMENT POLICY AND REGULATIONS**

**OBJECTIVE:** To enable the Students to Learn and Understand Environmental and Pollution Control Systems in Aviation.

**UNIT – 1: EMISSION** **10 Hrs**

Global and Local Emissions – Noise – Water and Waste Management and Bio Diversity – Technological , Operational and Infrastructural Improvement – Regulation and Economic Imitates.

**UNIT – 2: ENVIRONMENT DEVELOPMENT** **10 Hrs**

Vision 2020 of Aviation Development – Airport Environmental Impact – Airport Environment Capacity – Aviation Fuel – Combustion and Exhaust gases – Thematic Strategy on air Pollution.

**UNIT – 3: GENERAL OVERVIEW** **12 Hrs**

General Overview of Global Warming – Aviation from Pillar Strategy – Technology – Operations – Infrastructure – Economic Measures – Specific Goals and Targets – Noise Management – Noise abatement Procedures – Technological Progress – Noise Zoning – Compensation Issues – Operational Restrictions – Night Curfew – Noisy Aircraft Ban – Kyoto Protocol for Climatic effects – Radiation Exposure

**UNIT – 4: EMISSION MANAGEMENT** **12 Hrs**

Emission Calculation – Airport Activity – Aircraft Support Equipment auxiliary power unit (APU) – On Road Vehicles Parking Lots – Weather Data – Receptor Location – Airport Pollution Sources – Airport Emissions – Movement Date – Gate Emissions – Taxiway Emissions – Queue Emissions – Runway Pre Processing and Emissions

**UNIT- 5: AIR TRANSPORT AND ITS PERSPECTIVE** **12 Hrs**

Air Transport and its Perspective – Environmental aspects of Air Transport – General Purpose Aviation Segment air transport vision perspectives – Air Transport Beyond 2020 – Air Engine Exhaust gases – Airplane pollution Systems – Aero Engine Exhaust pollutants – Exhaust Pollutant reduction Engine enhancement Projects

Skill Development ::

1. Prepare a report on “White “ paper on National Green Aviation 2019 policy of Government of India
2. Chart out Government Policies for controlling pollution by Aviations
3. Collect Airport Air Quality manual
4. Submit a report on quality measure taken by to airport to control air pollution.

1. Study Guide for Environmental Regulations
2. Economic Analysis Environmental Policy Regulations – Frank Arnold.

### **3.7 AVIATION REGULATIONS**

OBJECTIVE: To enable the Students to learn the legal background of this Aviation World and all the Rules and Regulations connected with Air Transportation including the International Regulations as well as all the relevant State Acts passed in this respect.

#### **UNIT 1: CIVIL AVIATION REGULATIONS AUTHORITY**

**10 Hrs**

Regulatory Bodies – MOCA, AAI, DGCA, BCAS, ICAO, IATA DGCA-Introduction to Directorate General of Civil Aviation- DGCA functions- DGCA Organisation- DGCA as Regulatory Authority, ICAO (International Civil Aviation Organisation)- Functions, IATA( International Air Transport Association) -Functions, BCAS(Bureau of Civil Aviation Security)-Functions

#### **UNIT 2: AIRCRAFT RULES**

**6 Hrs**

Aircraft Act 1934 -The Aircraft Rules and Regulations Act1937

#### **UNIT 3: NATIONAL LEGISLATION**

**16 Hrs**

The Air corporations Act, 1953 (27 of 1953) The Air Corporations (Transfer of Undertakings and Repeal) Ordinance, 1994(4 of 1994) -The Air Corporations (Transfer of Undertakings and Repeal) Act, 1994 (13 of 1994) -The International Airports Authority of India act, 1971 (43 of 1971) -The National Airports Authority of India, 1985 (64 of 1985) - The Airports Authority of India Act 1994 (55 of 1994) - The Carriage by Air Act, 1972 (69 of 1972) -The Tokyo Convention Act, 1975 (20 of 1975) -The Anti-hijacking Act, 1982 (65 of 1975) - The suppression of unlawful acts against safety of Civil Aviation Act, 1982 (66 of 1982)

#### **UNIT 4: CIVIL AVIATION REQUIREMENTS (CAR)**

**12 Hrs**

Section 1-General -Section 2-Airworthiness -Section 3-Air Transport -Section 4- Aerodrome standards and Air Traffic Services -Section 5-Air Safety -Section 6- Design standards and type certification -Section7-Flight crew standards, training and licensing -Section 8-Aircraft operations

#### **UNIT 5: INTERNATIONAL CONVENTIONS**

**12 Hrs**

The Chicago conventions, 1944 - Hauge Convention, 1970- Montreal Convention, 1999- The International Air Services Transit Agreement, 1944 - The International Air Transport Agreement, 1944 -The Warsaw Conventions, 1920 -The Geneva Convention, 1948 -The Rome Convention, 1952 -The Tokyo Convention, 1963

#### **SKILL DEVELOPMENT:**

1. Write an essay when and why Chicago Convention 1944 has formed?
2. Assignment on all Aviation Regulatory Bodies and their Functions.
3. Make a chart on functions of Airworthiness Officer.

#### **REFERENCES BOOKS :**

1. Civil Aviation Law and Regulations by FlySky Aviation, Edition 2020.
2. Aircraft Manual, C.A.R. Sec. II

**4.2 ENTREPRENEURSHIP MANAGEMENT**

**OBJECTIVE:** To enable the Students to learn and Understand the Management of Various resources and service Management in Airlines

**UNIT 1: CONCEPT OF ENTREPRENEURSHIP****10Hrs**

Entrepreneurship – Meaning – Types – Qualities of an Entrepreneur – Classification of Entrepreneurs – Factors influencing Entrepreneurship – Functions of Entrepreneurs – Role in Economy – Women Entrepreneurship.

**UNIT 2: POLICY & INSTITUTIONAL ECO SYSTEM FOR ENTREPRENEURSHIP 12Hrs**

Startup India – Make in India – Stand up India – Special Schemes - Entrepreneurial Development Agencies - NSDC – EDI – MSME – SIDO – EDI – NIESBUD – Role of professional bodies and industry associations

**UNIT 3: BUSINESS PLAN & PITCHING****10Hrs**

Business idea generation techniques – Identification of Business opportunities – Feasibility study – Marketing, Finance, Technology & Legal Formalities - Preparation of Business Plan - Pitching – Types.

**UNIT 4: ENTREPRENEURIAL FINANCE & SICKNESS AND TURNAROUND STRATEGIES 12Hrs**

Sources of Finance – Research Institutions – Venture Capital – Angel Investors – Commercial Banks – MUDRA – NABARD – Microfinance - MSMEs and IPO. Industrial Sickness–Definition–Causes – Symptoms – Prediction – Revival – Managerial Deficiencies Revival of Sick unit – BIFR and SICA’s Role – Startup India’s notion towards Winding up

**UNIT 5: ENTREPRENEURSHIP OPPORTUNITIES IN AVIATION****12Hrs**

1. Aviation fuelling service 2. Aircraft wash service 3. Aviation Consulting service 4. Airport catering service 5. Aircraft parts sales 6. Aircraft maintenance service 7. Airline marketing 8. Aviation Academy and Flight schools 9. Aviation blogging 10. Airport currency exchange

**SKILL DEVELOPMENT:**

1. Power Point Presentation on Business Plan of any Indian Airlines.
2. What are the legal Formalities of starting any Airlines in India
3. How to set up a catering services for Airlines.

**REFERENCE BOOKS:**

1. S.S.Khanka, Entrepreneurial Development, S.Chand and Company Limited, New Delhi, 2007.
2. Saravanavel – Entrepreneurial Development, Ess-Pee-kay-Publishing-House, 5th Edison, 2011
3. J.S. Saini& S.I. Dhameja – Entrepreneurship and small business.
4. P.C. Jain – Handbook for New Entrepreneurs ONLINE SOURCES
- 5 <http://nptel.ac.in/courses/110105067/> 2 <http://nptel.ac.in/courses/109105098/>

### **4.3 CORPORATE ACCOUNTING**

**Objectives:** To enable students to have a comprehensive awareness about the provisions of the companies act and corporate accounts.

#### **Unit:1 PRESENTATION OF FINANCIAL STATEMENTS**

Outline for the Preparation of Financial Statements of financial position, Comprehensive Income Statement, Statement of changes in equity. IAS 18, Revenue elements of financial statements as per IFRS, Non Current Assets, Current Assets, equity, Non Current liability, Current liability Revenue, cost of sales, Distribution costs, Administrative expenses, financial costs, profits attributable to owners of controlling interest and non controlling interest, practical problem.

#### **Unit:2 Profit prior to Incorporation**

Meaning, Calculation of sales ratio, Time ratio, Weighted ratio, Treatment of capital and revenue expenses, Ascertainment of Pre incorporation and post incorporation profits by preparing profit and loss account and balance sheet vertical (format).

#### **Unit:3 Valuation of Goodwill**

Meaning, Circumstances of valuation of Goodwill, Factors influencing the value of goodwill, Methods of valuation of goodwill, average profit method, super profit methods and annuity methods and problem

**Unit 4: Valuation of Shares** Meaning, Need for Valuation, factors affecting valuation, Methods of valuation, Intrinsic value method, Yield method ,fair value method and problems.

#### **Unit:5 Company Final Accounts**

Statutory provisions regarding preparation of final accounts, treatment of items TDS, Advance payment of tax ,Provisions for tax, depreciation, interest on debenture, transfer to reserve, preparation of income statement and balance sheet (vertical column).

#### **SKILL DEVELOPMENT**

1. Collect the annual reports of a company and list out the Assets and liabilities.
2. Collection of latest financial accounts of a company and find out the net asset value of a shares
3. Preparation of notes to accounts for non current assets
4. Collect prospectus and identify its salient features
5. Collect and fill the share application form of a company

#### **BOOKS FOR REFERENCE**

1. S.Bhat – Corporate Accounting
2. Arulanandam & Raman , Corporate Accounting
3. S.P Jain and K.L. Narang ,Corporate Accounting
4. Soundarajan.A & K Venkataramana, Corporate Accounting , VBH

#### **4.4. COSTING TECHNIQUES**

**Objective :** The objective of this subject is to familiarize students with various elements of cost and to provide essential knowledge about the costing techniques which are used as a decision making tool both in production & Service industry.

##### **Unit 1 : STANDARD COSTING**

**8Hrs**

Meaning ,uses , General principles, Advantages & Importance, Limitations, Difference between Historical costing & Standard costing, Classification of Standards ( Ideal VS Normal, Basic VS current ,Physical VS Financial ,valuation of stock under standard costing ,Setting up Standards for – Material, Quantity & Price : Labour, Time& Rate : Overheads- VOH & FOH.

##### **Unit 2. VARIANCE ANALYSIS**

**12Hrs**

Difference between standard costing & variance Analysis, Computation of variances for each elements of costs, Classification & Analysis, Computation of Material Cost Variance, Direct material mix and yield Variances, Labour cost Variance, Fixed production OH Cost Variance, Variable OH cost variances, Sales price & Sales volume variances, Total profit variance

##### **Unit 3 MARGINAL COSTING**

**16 Hrs**

Meaning, Features, Application & Limitations of marginal costing, Tools & Techniques for Decision making : Contribution, Profit volume Ratio, Break even Analysis, CVP analysis,Margin of safety, Break even Point ( simple problems), Indifference point , Difference between Absorption costing and Marginal costing.

##### **Unit 4 BUDGETARY CONTROL**

**16 Hrs**

Meaning of Budget, Objectives & Advantages of Budgetary control system, Different types of Budget, Steps involved in preparing the budget,Factors to be considered in preparing Sales budget, Production budget,Difference between Fixed and Flexible budget, Performance Budgeting Zero based budgeting (ZBB) meaning, features,Advantages, Traditional budgeting VS ZBB, Problems on Functional budgets ( Cash budget, Sales budget, Production budget, Master budget, Flexible budget.

##### **Unit 5 : ADOPTING COSTING TECHNIQUES TO AVIATION SAFETY (THEORY ) 8Hrs**

Defining Aviation safety and Safety performance, Risk identification, Safety management system, using Activity Based Costing (ABC) and Management & implementation process, methodology for

safety programs, Traditional VS ABC cost system, Introduction to Standard operating procedures & TAWS and GPWS, TQM in Aviation.

**SKILL DEVELOPMENT:**

- 1) Classification of types of Budgets.
- 2) Documentation relating to implementation of ABC in Aviation Industry.
- 3) cost estimation for making Break Even Analysis
- 4) Discuss the different decision making costing tools.
- 5) List methods of costing adopted by service industries .
- 6) List the items shown in materials and sales volume variance analysis.
- 7) Draw a specimen of cash budget. & Master budget.
- 8) Draft a format of sales budget with imaginary figures

**BOOKS FOR REFERENCE :**

1. B.K.Bhar, Cost Accounting, 18thEdn, Everest Publishing House
2. B.M.Lall Nigam &G.L.Sharma, Latest Edn. Theory And Technique Of Cost Accountancy, Himalaya Publishing House
3. B.S.Raman, Cost Accounting, Latest Edn, United Publishers
4. BanarjeeBhabathosh, Cost Accounting, 12thEdn, SahityaBhawan Publications
5. Dr.UmeshMaiya, A Textbook Of Cost Accounting,2ndEdn, KitabMahal
6. K.S.Adiga, Cost Accounting, Latest EdnSubhadraPrakashana
7. N.K.Prasad, Principles & Practices Of Cost Accounting, Latest Edn, Book Syndicate Pvt. Ltd
8. R.L Gupta, Principles And Practice Of Cost Accountancy, Latest Edition, Sultan Chand & Sons
9. Swaminathan, Lectures Of Costing, Latest Edn, S. Chand & Co., ,
10. M. N. Arora: Cost Accounting, HPH
11. J.Madegowda: Advanced Cost Accounting, HPH
12. Gouri Shankar: Practical Costing, HPH.
13. KhannaPandey&Ahuja : Practical Costing, Sultan Chand
14. K. S. Thakur: Cost Accounting, New Century Book House Pvt. Ltd.
15. M.L. Agarwal: Cost Accounting, Sahithya Bhawan Publications.
16. Palaniappan & Harihara : Cost Accounting I.K. International
17. Jain &Narang: Cost Accounting, Kalyani Publishers
18. S.P. Iyengar: Cost Accounting, Sultan Chand.
19. S.N. Maheshwari: Cost Accounting, Mahaveer Publishers.
20. Horngren: Cost Accounting – A Managerial Emphasis, Prentice Hall
21. Dr.A. Sundra Rajan & Dr. K. Venkataramana, SHB Publications.
22. R.G. Saha & Others – Cost Accounting
23. V. Rajesh Kumar & R.K. Sreekantha, Cost Accounting – I, Vittam Publications.
24. Dr. Alice Mani: Cost Accounting, SBH.



#### 4.5 BUSINESS RESEARCH METHODS

**OBJECTIVE:** To familiarize students with research process, tools and techniques used along with report generation

**Unit 1: INTRODUCTION TO RESEARCH - 16 Hrs**

Meaning –Characteristics of Research- Objectives – Types of Research – Scope of Research – Significance of Research- Research Methods Vs Research Methodology Research Process – Review of literature and its significance- Problem Formulation – Sources of problem formulation-Ethics in Research- Plagiarism in research, Measures to overcome Plagiarism, Research Design –Types of research design-Steps involved in designing research design- Types of variables in relation to research design

**Unit 2: HYPOTHESIS AND SAMPLING METHODS- 10 Hrs**

Testing of hypothesis-Types –Significance-Steps involved in hypothesis-Formulation of hypothesis- Errors in hypothesis- Level of significance- Sampling methods- Probability and non-Probability and its applicability-Determination of sample size, Sampling errors, Confidence interval

**Unit 3: TOOLS FOR COLLECTION OF DATA - 14 Hrs**

Data and its types in research, Sources of data collection, Questionnaire Design-Schedules, Interview-Observation- Survey methods- Scaling measurement techniques: Nominal Scale, Ordinal Scale, Interval Scale, Rating Scale- Criteria for good measurement , attitude measurement , Motivational research

**Unit 4: STATISTICAL METHODS - 10 Hrs**

Classification and Tabulation of data - Analysis of data –Steps involved in analysis of data-Descriptive statistics (Meaning only),Parametric and non- parametric tests applicability (Concepts only)- Multidimensional Scaling and Cluster analysis (Concepts only) , AMOS(Concept only)

**Unit 5: REPORT WRITING – 06 Hrs**

Reports and its types , Format of research report, Report writing – Principles – Steps in report writing- Bibliography, Reference importance and writing style

**SKILL DEVELOPMENT**

- Illustrate steps involved in research process
- Illustrate statement of problem by selecting topic of your interest
- Illustrate review of literature and identify research gap

- Illustrate different types of samples with examples
- Construct a questionnaire for collection of primary data keeping in mind the topic chosen for research
- Narrate your experience using schedule technique
- Diagrammatically present the information collected through the questionnaire
- Narrate diagrammatically the various parametric and non parametric along with its applicability
- Narrate steps involved in research reporting

**BOOKS FOR REFERENCE**

1. O.R.Krishnaswamy; Research methodology in Social Sciences, HPH, 2008.
2. R. Divivedi: Research Methods in Behavior Science, Macmillan India Ltd., 2001.
3. J.K. Sachdeva: Business Research Methodology HPH
4. S.N. Murthy, V. Bhojanna: Business Research Methods Excel Books
5. Levin &Rubin: Statistics for Management, Prentice Hall of India, 2002
6. Gupta S; Research Methodology and Statistical Techniques, Deep & Deep Publication (P) Ltd.,2002
7. Thakur D: Research Methodology in Social Sciences, Deep & Deep Publications (P) Ltd.,1998.
8. Tripathi P.C:A Textbook of Research Methodology, Sultan Chand & Sons, 2002.
9. Shashi K. Gupta Praneet Singh: Business Research Methods Kalyani Publishers
10. C.R. Kothari, Research Methodology, Vikas Publications 11. Usha Devi N, Santhosh Kumar – Business Research Methodology

#### **4.6 TRAVEL AND TOURISM MANAGEMENT**

**OBJECTIVE:** To enable the students to learn the basics of Travel & Tourism Aspects.

##### **UNIT -1: INTRODUCTION TO AIRLINE TRAVEL**

**12 Hrs**

Introduction to Tourism – Meaning and Definition of Tourism- Eco Tourism Tourist Meaning and Types – Characteristics of Tourist – Definition by WTO – Other Tourism Definitions – Tourism Abbreviations – Types of Tourism – History of Tourism - Nature and Scope of Tourism – Employment Opportunities in Tourism Industry- IATA Geography and Global indicators

##### **UNIT -2: Tourism Role**

**12 Hrs**

The Role of Tourism for a Nation, State or Region – Fundamentals of Tourism and Travel – Contribution of Tourism to achieving the millennium Development Goals – Various Advantages and Disadvantages of Tourism – Benefits of Tourism –

##### **UNIT -3:TRAVEL DOCUMENTS**

**10 Hrs**

Passport – Visa- TIM- Currency Regulations-IATA Rate of Exchange Banker 's Buying Rate- Banker 's selling Rate-Currency Conversion Departure Control System-ATC

##### **UNIT - 4:TRAVEL AGENT MANAGEMENT**

**12 Hrs**

Travel Partners IATA Approved Travel Agency Appointment and Control Bank guarantee - IATA Billing and Settlement Plan Credit Period - Customer Service-Service Provider Training and Development of Travel agent-GDS.

##### **UNIT – 5: TOURISM IMPACT**

**10 Hrs**

Tourism Impact on Economy, Culture and Society –Economic Impact – Impact on Society – Cultural Impact – Culture and Authenticity – Minimizing negative impact on Culture - Environmental Impact – Environmental Pollution

##### **SKILL DEVELOPMENT:**

1. Give your own inputs on minimising negative impact on Culture
2. Assignment on currency conversion Departure control system. Any examples
3. Make a chart on Employment opportunities in Travel and Tourism Industry.

##### **REFERENCE BOOKS:**

1. Aviation and Hospitality Management by FlySky Aviation, Edition 2020.
2. Fundamental of Tourism and Travel by L.K.Singh
3. International Tourism Management by Arjun Kumar Bhatia.

## **4.7 LOGISTIC AND AIR CARGO MANAGEMENT**

**Objectives:** To enable the students to acquire the knowledge of Logistics and Cargo in Aviation Industry.

### **UNIT: 1 CONCEPT OF LOGISTICS INTRODUCTION**

**12 Hrs**

Concept of Logistics- Role of Ware Housing-trend in material handling-Global Supply Chain- Quality concept and Total Quality Management-improving Logistic performance-Air Cargo Concept- Cargo Handling-Booking of Perishable Cargo and Live Animals- Industry Relation- Type of Air Cargo-Air Cargo Tariff, ratios and Charges-Airway Bill, Function, Purpose, Validation.

### **UNIT: 2 TRANSPORT SYSTEM MODEL AND WAREHOUSING DEREGULATION AND**

**GOVERNMENT RULE 10 Hrs** Transport Security Product Packaging and Pricing – Role of Warehouse –Alternative Warehousing Trend in Material Handling – Inbound Logistics and Purchasing

### **UNIT: 3 GLOBAL ENVIRONMENT & STRATEGY GLOBAL SUPPLY CHAIN 10 Hrs**

International Documentation- Strategy Formulation & Implementation Quality Concept & TQM - Improving Logistics Performance

### **UNIT: 4 AIR CARGO CONCEPT INTRODUCTION**

**14 Hrs**

Air Cargo Introduction – Key Features – Cargo Agent – Meaning – Regulated Agent – Meaning – Courier – Meaning - Airway Bill – Meaning – Procedure to handle Domestic Cargo at Cargo Ware House – Procedure to Handle International Cargo at Cargo Ware House -Operations and Industry Regulations – Service Function, Organisation and Liability – SLI, Types of cargo-Handling of Perishable,Valuable Cargo ,Human Remains ,AVI and Special Cargo. Air cargo Tariff, Rates & Charges – Valuation charges and Disbursement Airway Bill, Function, Purpose and Validation

### **UNIT: 5 HANDLING FACILITY AIRPORT CARGO ACTIVITY & CARGO ZONE 10 Hrs**

Aircraft Handling with Cargo. Cargo Terminals and Facilities . Emerging trend in Cargo & Cargo Carriers.

### **SKILL DEVELOPMENT :**

1. Growth Strategy in Logistics Department in Airline Industry
2. Write an essay on alternative warehousing trend in material handling
3. Write the functions on Cargo Agent or Freight Forwarders.&Assignment on Cargo Handling at Airport

### **REFERENCES BOOKS:**

1. Aviation and Hospitality Management by FlySky Aviation. Edition 2020.
2. Kent Gourdin, —Global Logistics Management, Wiley Blackwell
3. Lambert, — Strategic Logistic Management, Academic Int Publisher
4. Alan Rushton & John Oxley, — Hand Book of Logistic and Distributionl, Kogan Page

## **5.1 AVIATION RESOURCE & SERVICE MANAGEMENT**

**OBJECTIVE:** To enable the Students to learn and Understand the Management of Various resources and service Management in Airlines

### **UNIT 1: CREW RESOURCES MANAGEMENT 12Hrs**

The role of crew resources management – The trouble with culture – Creating and implementing human factors’ safety culture – human assessment – traditional flight crew and CRM training in general aviation – crew concepts in the air ambulance services.

### **UNIT 2: THE AIRCRAFT CABIN 10Hrs**

Safety issues in capital – cabin crew communication – service, teamwork and flight safety – flight attendants’ job performances and job satisfaction.

### **UNIT 3: FATIGUE AND STRESS 10Hrs**

Fatigue management in aviation – Fatigue in air activity – Stress management – the physiological factor

### **UNIT 4: SELECTION AND TRAINING 12Hrs**

Job requirements of Airline Pilots – Pilot selection process – Personality test for traffic controllers – training of pilots and crew members – the link between human factors and organizational learning.

### **UNIT 5: AVIATION INFORMATION AND MANAGEMENT 12Hrs**

Structure of aviation operational information, management of aviation operational information – User innovation in Aviation operational information – Future of Aviation operational information

### **SKILL DEVELOPMENT:**

- 1.Aviation and Hospitality Management by FlySky Aviation. Edition 2020.
- 2.Prepare a flowchart of Pilot Selection process. Eg: Any Airline
- 3.Assignment on Communication between Pilot and Airhostess right from Departure to Arrival.
- 4.What do you learn about Future of Aviation operational information.

### **REFERENCE BOOKS:**

- 1.Brain Mc Allister, Crew Resource Management ,Air life
2. Jensen,Pilot Judgement & Crew Resource Management ,N A
3. ThomasLSeamster,Aviation Information Management – From Documents Data, Ashgate
4. ThomasL Seamster & Barbara G Kanki ,Aviation Information Management, Ashgate

## 5.2 INCOMETAX

**OBJECTIVES** The objective of this subject is to acquaint the students with the various provisions of Income Tax Act relating to computation of Income of individual assesses only.

### **UNIT1: INTRODUCTION TO INCOMETAX**

**14Hrs**

Income Tax : Brief History-Legal FrameWork–TypesofTaxes- Cannonsof Taxation–Important Definitions:Assessment–AssessmentYear–PreviousYear–Exceptionstothe generalrule of Previous Year- Assessee–Person–Income-Casual Income–GrossTotal Income–Total Income–Agricultural Income Residential Status: Determination of Residential Statusof an individual(simple problems)- Incidence of Tax(Simple Problems on Computation of Gross Total Income). Exempted Incomes:Introduction – Exempted Incomes U/S 10 (Restricted to Individual Assessee)–Only theory

### **UNIT2: INCOME FROM SALARY**

**16Hrs**

Meaning & Definition–Basis of Charge–Allowances Fully Taxable Allowance Partly Taxable Allowances: House Rent Allowance, Entertainment Allowance, Transport Allowance, Children Education & Hostel Allowances – Fully Exempted Allowances – Perquisites – Tax Free Perquisites– Perquisites Taxable in all Cases:Rent free accommodation Concessional accommodation ,Personal obligations of the employee met by the employee Perquisites Taxable in Specified Cases: Gardener, Sweeper, Gas, Electricity, Water and Motor car facility (when the motor car is owned or hired by the employer)–Provident Funds–Deductions from Salary U/S16–Problems on Income from Salary (excluding retirement benefits).

### **UNIT3:INCOME FROM HOUSE PROPERTY**

**10Hrs**

Basis of Charge– Exempted Incomesfrom HouseProperty– AnnualValue– DeterminationofAnnualValue– LossduetoVacancy–DeductionsfromAnnualValue –ProblemsonIncomefromHouseProperty(ExcludingPre-Constructioninterest)

### **UNIT4:PROFITS AND GAINS FROM BUSINESS AND PROFESSION**

**10Hrs**

Meaning and Definition of Business & Profession – Expenses & losses Expressly Allowed–Expenses and losses Expressly Disallowed – Expenses Allowed on Payment Basis-Problems on computation of income from Business of Sole Proprietor.

### **UNIT5:COMPUTATION OF TOTAL INCOME**

**06Hrs**

Income from Capital Gains( excluding exemptions-Theory only)-Income from Other Sources(Theory only)- Deductions U/S80C,D&G. Simple problems on Computation of Total income of an Individual

### **SKILLDEVELOPMENT**

- Form No.49A(PAN) and 49B.
- Filing of Income Tax Returns.
- List of enclosures to be made along with IT returns (withreferencetosalary&H.P).

- Preparation of Form16.
- Computation of Income Tax and the Slab Rates.
- Computation of Gratuity.
- Chart on perquisites.
- List of enclosures to be made along with IT returns (with reference to salary and house property incomes)

## BOOKS FOR REFERENCE

1. Dr. Mehrotra and Dr. Goyal: Direct Taxes – Law and Practice, Sahitya Bhavan Publication.
2. Dr. Vinod K. Singhanian: Direct Taxes – Law and Practice, Taxmann publication.
3. B. B. Lal: Direct Taxes, Konark Publisher (P) Ltd.
4. Dinakar Pagare: Law and Practice of Income Tax, Sultan Chand and Sons.
5. Gaur & Narang: Income Tax, Kalyani Publishers
6. Lecturer – Income Tax – VBH
7. Dr. V. Rajesh Kumar and Dr. R. K. Sreekantha: Income Tax – I, Vittam Publications

**5.3 INTERNATIONAL FINANCIAL REPORTING STANDARD (IFRS)**

**OBJECTIVE:** The objective of the subject is to enable the students to understand the need and method of presentation of financial statements in accordance with International Financial Reporting Standards.

**Unit-I** International Financial Reporting Standards: **5Hrs**

Meaning of IFRS - relevance of IFRS to India; merits and limitations of IFRS; process of setting IFRS- Practical challenges in implementing IFRS; a brief theoretical study of International financial reporting standards (IFRS) 1 – 15 - List of International accounting standards issued by IASB.

**Unit – II** Accounting for Assets and Liabilities **25Hrs**

Recognition criteria's for Investment properties, Government grants, Borrowing costs, Construction contracts, share based payments, Provisions, Contingent liabilities and Contingent assets, Events occurring after the reporting period (Only Theory).

Recognition and measurement for property plant and equipment, Intangible assets, Inventories, Leases and Impairment. Accounting for Income tax, Employee benefits. - Simple problems

**Unit-III** Presentation of Financial Statements **8Hrs**

Outline for the preparation of financial statements - Statement of financial position; Comprehensive income statement; Statement of changes in equity (SOCE), IAS 18 – Revenue. Elements of financial statements as per IFRS – Non-current assets; current assets; equity; non- current liability; current liability; revenue; cost of sales; distribution costs; administrative expenses; financial costs – profits attributable to owners of controlling interest and non-controlling interest – Practical problems on each element.

**Unit – IV** Accounts of Groups: **12Hrs**

Concept of group – need for consolidated financial statements - Preparation of consolidated financial statements – Procedure for the preparation of consolidated financial position statement – treatment of pre-acquisition profit; goodwill arising on consolidation; on-controlling interests at fair value – Practical problems.

**Unit – V** Implication of Leases and Revenue recognition in airlines **6Hrs**

Implication of Leases and Revenue recognition in airlines ( problems)



**SKILL DEVELOPMENT**

- 1) Conversion of final accounts to IFRS
- 2) Analysis of published financial statements for at-least 2 types of stakeholders
- 3) Comments for recent developments/exposure draft in IFRS
- 4) Preparation of notes to accounts for non-current assets
- 5) Assignment on social reporting
- 6) Preparation of Consolidated Financial Statement of any two existing companies.
- 7) Disclosure of change in equity in the annual reports of any two select companies.

**BOOKS FOR REFERENCE:**

1. IFRS – Student Study Guide - ISDC
2. IFRS for India, Dr.A.L.Saini, Snow white publications
3. Roadmap to IFRS and Indian Accounting Standards by CA Shibarama Tripathy
4. IFRS explained – a guide to IFRS by BPP learning Media
5. IFRS concepts and applications by Kamal Garg, Bharath law house private limited.
6. IFRS: A quick reference guide by Robert J Kirk, Elsevier Ltd.

**5.4 AVIATION LAW**

OBJECTIVE: To enable the Students to learn and understand the in-depth analysis of legal concepts related to the Aviation Industry

**UNIT 1: INTRODUCTION AND DEVELOPMENT OF AIR LAW IN INDIA 10 Hrs**

Introduction – Paris Convention on Air Navigation 1919- First Indian Air Board – Birth of Indian Air Companies – Civil Aviation and Post Second World War – Nationalisation of Air Services – International Airports Authority in India – History of Aviation Survey of Current Air law in India

**UNIT 2: AVIATION LIABILITY 12 Hrs**

Liability of the Carrier under the Indian Carriage act 1972 – Warsaw Convention 1929 – International Carriage – Hague Protocol 1955 – Montreal Interim Agreement 1966 – Guatemala City Protocol 1971 – Montreal Protocol 1975 – Consumer Protection Act and Air Carriage Claims

**UNIT 3: INTERNATIONAL AIR TRANSPORTATION 12 Hrs**

Air Regime Prior to the Chicago Convention – Chicago Conference – Convention on the International Civil Aviation – Rules of Air Navigation – liberalisation of International Air Transportation – Bermuda Agreement – Multilateralism for Liberalisation – Application of GATT Principles to International Air Transportation – Environmental Protection Measures – India and Bilateral Services Agreement.

**UNIT 4: AVIATION IN INDIA 12 Hrs**

Introduction – History – Present – Future Overview – Airlaw 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 in Aviation in India and future outlook for National Airlines

**UNIT 5: AIRLINES OWNERSHIP 10 Hrs**

Introduction – Privatisation – Policy Issues – Current Situation – Changing Trends in Liberalisation and ownership in Air Services – Airspace Management in India

**SKILL DEVELOPMENT:**

1. Make a chart on Rules of Air Navigation
2. Assignment on Air Routes and Aerodromes in India
3. Assignment on International Airports Authority in India

**REFERENCE BOOKS:**

1. Aviation Law and Regulations by FlySky Aviation, Edition 2020.
2. S.Bhatt, V.S.Mani & V.Balakrishna Reddy – Air Law Policy in India GH

## **5.5 Cabin Crew Management**

**Objective:** To obtain a position in which students can use customer care and emergency-management skills to provide passengers with a comfortable and safe flying experience.

### **UNIT 1: INTRODUCTION**

**10 Hrs**

Cabin crew-meaning -responsibilities of cabin crew-minimum requirement of cabin crew- senior cabin crew-definition-job responsibilities-line check cabin crew- procedure to be followed while cabin crew at base for duty- organisational chart of an airline - cabin crew skills- crew team -communication- crew leadership - crew performance assessment - cabin crew training -validity of training - cabin crew competency card - breath analyser - meaning

### **UNIT 2: OBJECTIVE AND JOB RESPONSIBILITIES**

**12Hrs**

Objective of cabin crew training -responsibilities of cabin crew safety training manager -CRM training method - safety and emergency procedures instructor responsibilities - qualification criteria for SEP instructor - recurrent training - responsibilities of CRM instructor- responsibilities of First Aid instructor- dangerous goods -definition -aviation security (AVSEC).

### **UNIT 3: STANDARD OF CABIN CREW**

**10Hrs**

Initial training and objectives -practical notes - training material- case studies - medical standards- need for cabin crew on board-CRM for cabin crew-flight deck crew- initial training -aircraft type training - recurrent training - differences training-familiarisation flight - Refresher training - senior cabin crew training - safety and emergency response procedure instructor training - practical training - components of all the training - general principal of cabin crew training.

### **UNIT 4: SOFT SKILLS / PERSONALITY DEVELOPMENT**

**10 Hrs**

Introduction-positive thinking skill-self image building skill- self motivation skill- self confidence-stress management - time management--team building skill- customer relationship management - conflict management -professionalism etiquette- cross culture learning skill.

**UNIT 5:GROOMING** Daily grooming tips-types of skin and skin care tips - hair care tips- makeup requirements- hair do- practicals-makeup removal -manicure and pedicure- uniform regulation - walking and sitting style.

**10 Hrs**

**SKILL DEVELOPMENT:**

1. Assignment on procedures of cabin crew reporting at base.
2. A case study on PAN Am Flight 73 Hijack
3. Make a chart on Daily Grooming tips for Men and Women.

**REFERENCE BOOKS:**

1. Cabin Crew Airhostess by FlySky Aviation. Edition 2020.
2. Crew Resource Management 2nd Edition: Barbara Kanki, Robert Helmreich & Jose Anca; Academic Press, 2010.
3. Global Aviation And Hospitality Management Hardcover – 1 January 2008 by Gagandeep Singh

### **5.6 AIRLINE FINANCE AND INSURANCE**

**OBJECTIVE:** To provide understanding of airline financial statements and to address specific airline industry aspects such as treatment of frequent flyer programmes , aircraft leases and evaluation of airline performance by financial ratios.

#### **UNIT 1: FOUNDATION OF FINANCE 12Hrs**

Financial management - An overview, time value of money. Capital Budgeting: Principles and techniques, Nature of capital budgeting, Identifying relevant cash flows, Evaluation Techniques, Payback, Accounting rate of return, Net Present Value, Internal Rate of Return, Profitability Index, Comparison of DCF techniques, Project selection under capital rationing, Inflation and capital budgeting.

#### **UNIT 2: AIRLINE FINANCIAL PERFORMANCE 12Hrs**

World Airline Financial results - Factor affecting Financial results - Airline Financial Statements - Airline Financial Ratios - Inter Airline Comparison of Financial Ratios - Valuation of Tangible Assets - Valuation of Intangible assets- valuation of Airline as a whole - Rating Agencies.

#### **UNIT 3: SOURCES OF FINANCE 12Hrs**

Sources of internal finance - sources of external finance - Institution evolved in Aircraft Finance - Equity Finance - Foreign Ownership Limits - Share trading and Share Market Listings - Initial Public Offerings - Airline Privatisation - Full Privatisation - Gradual Privatisation - Partial Privatisation.

#### **UNIT 4: AIRLINE FINANCIAL PLANNING 10Hrs**

Budget Preparation and Control - Working capital Management - Principles of working capital: Concepts need; Determinants, issues and estimation of working capital, Accounts Receivables Management and factoring - Financial Planning.

#### **UNIT 5: RISK MANAGEMENT & LEASING 10Hrs**

Exchange rate volatility - Airline trading exposure to currency movements- Airline Foreign exchange risk management - Fuel price exposure - Aircraft leasing - Finance Lease - Operating Lease - Japanese Operating Lease - Wet Lease - Sale and Leaseback - Aircraft Securitizations.

**SKILL DEVELOPMENT:**

1. Write an essay about Aircraft Leasing Procedure?
2. Assignment on Factors affecting Financial Results in Airline
3. A Case study on any Airlines shutdown due to Financial issues.

**REFERENCE BOOKS:**

1. Airline Accounting and Finance Management by FlySky Aviation, Edition 2020.
2. Peter. S. Morrell , " AIRLINE FINANCE " , Third Edition Ash Gate.
3. I.M.Pandey Financial Management, Vikas Publishing House Pvt. Ltd., 8th edition, 1999
4. M.Y. Khan and P.K.Jain Financial management, Text, Problems and cases Tata McGraw Hill Publishing company Ltd., 4th edition, 2004.

**6.1 GOODS AND SERVICES TAX****OBJECTIVE:**

• To equip students with the principles and provisions of Goods and Services Tax (GST) and to provide an insight into practical aspects and apply the provisions of GST laws to various situations.

**Unit 1: INTRODUCTION TO GOODS AND SERVICES TAX (GST)****08 Hrs**

Meaning, Objectives and Salient features of GST, Benefits of implementing GST, Constitutional Amendments, Structure of GST (Dual Model) – Central GST – State / Union Territory GST – Integrated GST, GST Impact on Indian Aviation Sector, GST Council: Structure, Powers and Functions.

**Unit 2: GST ACTS: CGST Act, IGST Act****08 Hrs**

Salient features of CGST Act, IGST Act - Meaning and Definition: Aggregate turnover, Adjudicating authority, Agent, Business, Capital goods, Casual taxable person, Composite supply, Mixed supply, Exempt supply, Outward supply, Principal supply, Place of supply, Continuous supply of Goods, Continuous supply of Services, Supplier, Goods, Services, Input service distributor, Job work, Manufacture, Input tax, Input tax credit, Person, Place of business, Reverse charge, Works contract, Casual taxable person, Non-resident person. Export of goods / services, Import of goods / services, Intermediary, Location of supplier of service, Location of recipient of service.

**Unit 3: PROCEDURE AND LEVY UNDER GST****24 Hrs**

Registration under GST: Meaning, Need for registration, Procedure for registration, Persons liable or registration, Persons not liable for registration, Compulsory registration, Deemed registration, Special provisions for Casual taxable persons and Non-resident taxable persons.

Procedure relating to Levy: (CGST & SGST, IGST): Scope of supply, Inter-state supply, Intra-state supply, Zero rates supply, Time of supply of goods and services, Place of supply of goods and services, Value of taxable supply, Exempted goods and services and Rates of GST, Tax liability on Mixed and Composite supply, Computation of taxable value and tax liability (CGST & SGST, IGST).

• Input tax Credit: Eligibility, Apportionment, Inputs on capital goods, Distribution of credit by Input Service Distributor (ISD) – Transfer of Input tax credit, Matching, reversal and reclaim of input tax credit - Simple Problems on utilization of input tax credit.

**Unit 4: ASSESSMENT AND RETURNS****10 Hrs**

• Assessment-Meaning and Types of Assessment.

• Returns-Meaning, Need and Types of Returns (First return, Annual return and Final return)-Forms & Due Dates.

• Furnishing details of outward supplies and inward supplies.

**Unit 5: GST AND TECHNOLOGY****06 Hrs**

GST Network: Structure, Vision and Mission, Powers and Functions. Goods and Service Tax Suvidha Providers (GSP): Concept, Framework and Guidelines and architecture to integrate with GST system, GSP Eco system.

**SKILL DEVELOPMENT:**

- Narrate the procedure for calculation of CGST, SGCT an IGST.
- Prepare list of exempted goods/ services under GST.
- Prepare chart showing rates of GST.
- Prepare Challans for payment of duty.
- Prepare Tax invoice under the GST Act.
- Prepare structure of GSTN and its working mechanism.
- Prepare organisation chart of GST Council.
- Compute taxable value and tax liability with imaginary figures under CGST, SGST and IGST.

**BOOKS FOR REFERENCE:**

1. Deloitte: GST Era Beckons, Wolters Kluwer.
2. Madhukar N Hiregange: Goods and Services Tax, Wolters Kluwer.
3. All About GST: V.S Datey - Taxman's.
4. Guide to GST: CA. Rajat Mohan,
5. Goods & Services Tax – Indian Journey: N.K. Gupta & Sunnania Batia, Barat's Publication
6. Goods & Services Tax – CA. Rajat Mohan,
7. Goods & Services Tax: Dr. Sanjiv Agrawal & CA. Sanjeev Malhotra.
8. Understanding GST: Kamal Garg, Barat's Publication.



## **6.2 AIR TRAFFIC CONTROL**

**OBJECTIVE:** To enable the Students to understand and learn about Air Traffic Control's Importance, Functions for the effective communication between Pilot and Air Traffic control and for the Safety of the Passengers and Aircraft.

### **UNIT 1: INTRODUCTION**

**10 Hrs**

Introduction – Air Traffic Control (ATC) and Air Traffic Services (ATS) – Functions of ATC – Scope of ATC – ATS Air Space Classifications – VFR (Visual Flight Rules)– Meaning , Facilities available at Visual Flight Radar Airport - Requirement of an Aircraft to land at Visual Flight Rules Airport- IFR (I Industry Financial Performance – Meaning – Facilities Available at Instrument Flight Rules Airport – Requirements of an Aircraft to land at IFR Airports – Metrological Department – Meaning – Coordination between ATS and Metrological Department – Flight Plan – Meaning – Standard Operating Procedure to file a Flight Plan with ATC – Minimum Visibility Requirements at Airport.

### **UNIT 2: ATC FUNCTIONS**

**12 Hrs**

Information processing – Sensation and sensory memory – Perception – Detection – Attention – Recognition – Decision Making and response selection – the visual system – visual sensation, perception, cognition, imagery – visualization in air traffic control. Auditory cognition – Spatial Orientation – Situation awareness – Mental Models – decision making and Judgment – Cognitive aspects – attitudinal behavioural aspects – selection and training

### **UNIT 3: NAVIGATION SERVICES & FACILITIES**

**12Hrs**

Emergency Procedure and Rule of the Air - Flight Information Alerting Services – Radar Services – Basic Radar Terminology -, Identification Procedures – Using Primary and Secondary Radar – Performance Checks Use of Radar in Area and Approach Control Service – Types of Air Navigation Services - Air Navigation Facilities – Air Navigation Service Providers – Assignment of Raising level minimum Flight Altitude – Flight Plan – Position Reports

### **UNIT 4: AERODROME FUNCTIONS & NAVIGATION SERVICES**

**12 Hrs**

Aerodrome Data – Physical Characteristics and Obstacles Restriction Aerodrome Data –Basic Terminology – Aerodrome Reference Code – Aerodrome Reference Point – Aerodrome Reference Temperature Instrumental Runway – Physical Characteristics – Length of Runway Visual and for Navigation – Visual Aids for Denoting Obstacle Emergency and other Services – Visual Aids for Navigation – Wind Direction Indicator – Landing Direction Indicator – Marking at Aerodrome

**UNIT 5: ATC STRESS MANAGEMENT****10Hrs**

Stress – causes of stress – noise and vibration – stress recognition – Stress management -Estimating stress levels -Changing Attitudes and behavior – Post traumatic stress Disorder – Sleep and fatigue – Circadian Rhythms – Cardiovascular and respiratory systems – The digestive system and the kidneys – Mental performance – psychological problems – performance changes – safety management –A case study – The Mount Erebus Disaster – Individual Performance factors – task factors – organizational culture – ATS organizations.

**SKILL DEVELOPMENT:**

1. Assignment on how ATC Staff Members overcome Stress.
2. Prepare a flowchart on Instructions given by ATC to Pilot for Departure.
3. Assignment on SOP to file a Flight Plan with ATC.

**REFERENCE BOOKS:**

1. ATC and Airport Strategic Planning by FlySky Aviation. Edition 2020
2. Fundamentals of Air Traffic Control by Michel Nolan.
3. The global Airline Industry by Peter Belobaba
4. Airport System Planning, Design and Management by Richard de Neufville.

### **6.3 AIRPORT STRATEGIC PLANNING**

**OBJECTIVE:** To enable the Students to understand and learn about Strategy in Airport Planning and Design and Continuous Innovation in Airport and Airline Operations.

#### **UNIT 1: INTRODUCTION**

**10 Hrs**

Introduction – Air Transport – Growth of Air Transport – Classifications of Airports and Airfield Components – Airport Organizations – Air Traffic Zones and Approach Areas – Development of Airport Planning Process – Consumers – Airline Decision and Other Airport Operations.

#### **UNIT 2: PLANNING AND DESIGNING THE TERMINAL AREA**

**12 Hrs**

Operational Concept – Space Relationships and Area Requirement – Noise Control - Vehicular Traffic and Parking at Airports

#### **UNIT 3: AIRTRAFFIC CONTROL AND NAVIGATION AIDS**

**12 Hrs**

Air Traffic Control and Aids – Runways and Taxiways Markings – Day & Night Landing Aids – Airport Lighting and Other Associated Aids.

#### **UNIT 4: AIRPORT PLANNING AND SURVEYS**

**12 Hrs**

Introduction – Airport Planning and Surveys – Runway Length and Width, Sight Distances – Longitudinal and Transverse – Runway Intersections – Taxiways, Clearances, Aprons, Numbering, Holding Apron.

#### **UNIT 5: AIRPORT CHARACTERISTICS RELATED TO AIRPORT DESIGN 10 Hrs**

Airport Characteristics Related to Airport Design – Component Size – Turning Radius – Speed – Airport Characteristics – Capacity and Delay – Factors Affecting Capacity – Determination of Runway Capacity Related to Delay – Gate Capacity – Taxiway Capacity

#### **SKILL DEVELOPMENT:**

1. Prepare a Flowchart on Classification of Airports.
2. Draw an Airport Design by your own.
3. Assignment on Airport Planning and Survey.

#### **REFERENCE BOOKS:**

1. ATC and Airport Strategic Planning by FlySky Aviation. Edition 2020
2. Strategic Airport Planning by Robert E Caves , Geoffery David Gosling
3. Strategic Management in Aviation Industry by Sascha Albert , Herbert Baum , Stefan Auerbach.

## **6.4 DISASTER MANAGEMENT**

### **(Emergency Response Procedure)**

**OBJECTIVE:** To enable the Students to learn the importance of Emergency Response Procedure during Accident and Serious Incident to the Aircraft and Passengers.

#### **UNIT 1: INTRODUCTION**

**10 Hrs**

Emergency Response Procedure – Meaning – Scope – Emergency Response Organization of an Airline – Emergency Response Plan during Accident and Serious Incident – Overview of Emergency Response Plan – Emergency Response Plan During Hijack – Emergency Response Team of an Airline – Family Assistance Group -Responsibilities of an Airline during Accident and Serious Incident.

#### **UNIT 2: EMERGENCY RESPONSE ACTION BY AN AIRLINE**

**12 Hrs**

Composition of Airline Emergency Response Team – Emergency Notification Action– Responsibilities of Emergency Response Coordinator – Quick Response Checklist – General Instructions – Initial Response Team – Responsibilities of Initial Response Team – Composition Of Initial Response Team – Spokes Person – Responsibilities of Spokes Person – Non schedule flight – Meaning – Documents to be Maintained at Office Responsibilities of Airline’s Reception.

#### **UNIT-3: EMERGENCY RESPONSE ACTIVITIES**

**12 Hrs**

Ground Operations – Meaning - Responsibilities of Ground Operations Head during Emergency – Quick Response Checklist – Airport Manager – Meaning – Responsibilities of Airport Manager during Emergency – Quick Response Checklist – Response during Occurrence at Respective Airport Location – Response during occurrence outside the Respective Airport Location – Airline Passenger list to release to Public – Airline Passenger List only for an Airline – Travel arrangements

#### **UNIT-4: EMERGENCY RESPONSE PROCEDURES**

**12 Hrs**

Operational Control Centre (OCC) – Meaning – Responsibilities of OCC – Quick Response Checklist – Duty Officer (OCC) – Responsibilities of Duty officer (OCC) – Crisis Management Centre – Responsibilities of Crisis Management Centre – Director Operations – Responsibilities of Director Operations – Quick Response Checklist – Director Inflight Services – Responsibilities of Director Inflight Services–Quick Response Checklist – Head Finance – Quick Response Check List – Responsibilities of Medical Team - Responsibilities of Head Finance – Summary of Responsive Action – GO Team – Members – Hospital Assistance Team – GO Kit – Components of GO Kit –

Responsibility of the Manager to Manage GO Kit – Extra needs during an Accident – Crisis Management Activation – Crisis Management and Family Assistance Programme GH **UNIT-5:**

**CRISIS MANAGEMENT AND FAMILY NOTIFICATION GUIDELINES 10 Hrs**

Family Assistance Program – Public Relations – Corporate Communication Coordinator –

Responsibilities – Press Release – Media Centre Programme – Airline Emergency Response Team –

Responsibilities – Interaction With Government Agencies – Family Notification Process – Preparation and

Release of Passenger Checklist – Mentally Assistance help to Family Victims – Disposal of Victim's

Personal effect – Selfcare during Emergency – General Guidelines of Family Notification - Requirement

for Quality Assurance Quality audit- ISO 9000 Quality standard Reliability.

**SKILL DEVELOPMENT:**

1. Assignment on Emergency Response Procedure of an Airline.
2. A Case study on any Emergency Response plan during Accident or Serious Incident.
3. Prepare a flowchart on Roles and Responsibilities of OCC Duty Officer.

**BOOKS FOR REFERENCE:**

1. Technological Trends and Disaster Management in Aviation by FlySky Aviation. Edition 2020
2. Disaster Management by Harsh K Gupta / Sulphey .M.M /R.Subramanian.

## **6.5 TECHNOLOGICAL TREND IN AVIATION**

**OBJECTIVE:** To enable the Students to understand and learn about New Technologies and Trends adapted in Aviation Sector.

### **UNIT 1: INTRODUCTION**

**10 Hrs**

Introduction – State of the Industry and Global Economic Outlook – Premium Economy – Meaning - The rise of Premium Economy – Digital Security System – Robot Helpers in Airport – Biometric Entertainment – Book a Taxi in the Sky – Low Cost Airlines – Meaning – The Growth of Low Cost Airlines – Last Minute Upgrades from Economy to Business Class – Green Airports – Introduction – Meaning – Advantages – In line Baggage Screening System – Passenger Boarding Process.

### **UNIT 2: TECHNOLOGICAL IMPROVEMENT**

**12 Hrs**

Cyber Security and the Cloud – A Digital Future – Inflight Enhanced Services – Using Data Insights to Understand the Customer -Personalizing and Unbundling Product Offerings – Leverage in Technological Innovations to tackle challenges – Emphasizing Cost Reduction Initiatives – Renewed focus on core offerings – Meaning – Block Chain Technology – Augmented reality and virtual Reality

### **UNIT 3: ADVANCED TECHNOLOGICAL IMPROVEMENT AIDS**

**12 Hrs**

Artificial Intelligence – Internet of Things – Beacons Technology – Digital Twins – Introduction – Advantages – Doubling down on Maintenance – Aviation Digital Transformation Survey – Results – Mobility and Cloud at Your Services – Drone Revolution -Aircraft Maintenance – Safety – Perspective Maintenance Loom – 3D Printing additive Manufacturing -Introduction- Lean Manufacturing Principles.

### **UNIT 4: AIRCRAFT TECHNOLOGY**

**12 Hrs**

Boing and Airbus Projected Aircraft deliveries – Fuel Efficiency – Increasing Attention to In – Cabin Experience – Turbo Props and Business Aircraft – Corporate and Commercial Aircraft Advanced Technology – Enhancements to Small Aircraft – Engine Technology – high efficiency Engines – Long Range Aircrafts – Improving Technology in Air Traffic Control

### **UNIT 5: AIRCRAFT DESIGN AND SYSTEM**

**10 Hrs**

Innovative Aircraft Design – Manufacturing – Electric Propulsion – Hypersonic Travel – Bio Fuels – Autonomous Flight – The Next Generation of Dassault’s advanced flight deck – Advantages – Digital Flight Control System – Fighter Jet Technology – Synthetic Vision System – Coordinated Symbology – Enhanced Navigation Package – Enhanced Vision System

**SKILL DEVELOPMENT:**

1. Assignment on Digital Security System in Aviation
2. Write an essay and Pros and Cons of Drones?
3. What are the levels involved in Inline Baggage Screening System?

**REFERENCE BOOKS:**

1. Technological Trends and Disaster Management in Aviation by FlySky Aviation. Edition 2020
2. Air Transportation: A Management Perspective By Dr John G. Wensveen.

## **6.6 Financial Analysis and Reporting**

**Objective** To enable the students to understand the analysis and interpretation of financial statements with a view to prepare management reports for decision-making.

### **Unit 1: INTRODUCTION TO FINANCIAL ANALYSIS**

**04 HRS**

Meaning – Definition – Objectives – Nature and Scope of FINANCIAL ANALYSIS – Advantages and limitations of Financial analysis

### **Unit 2: RATIO ANALYSIS**

**14 Hrs**

Meaning and Definition of Ratio, Accounting Ratio and Ratio Analysis – Uses – Limitations - Classification of Ratios – Problems on Ratio Analysis - Preparation of Trading and Profit & Loss Account and Balance Sheet with the help of Accounting Ratios

### **Unit 3: FUND FLOW ANALYSIS**

**12Hrs**

Meaning and Concept of Fund – Meaning and Definition of Fund Flow Statement – Uses and Limitations of Fund Flow Statement – Procedure of Fund Flow Statement – Statement of changes in Working Capital – Statement of Funds from Operation – Statement of Sources and Application of Funds – Problems.

### **Unit 4: CASH FLOW ANALYSIS**

**12Hrs**

Meaning and Definition of Cash Flow Statement – Differences between Cash Flow Statement and Fund Flow Statement – Uses of Cash Flow Statement – Limitations of Cash Flow Statement – Provisions of AS-3 – Procedure of Cash Flow Statement – Concept of Cash and Cash Equivalents - Cash Flow from Operating Activities – Cash Flow from Investing Activities and Cash Flow from Financing Activities – Preparation of Cash Flow Statement according to AS-3 (Indirect Method Only).

### **Unit -5 ACCOUNTS OF GROUPS**

**10Hrs**

Concept of group – Need for consolidated financial statements - Preparation of consolidated financial statements – Procedure for the preparation of consolidated financial position statement – treatment of pre-acquisition profit; goodwill arising on consolidation; on-controlling interests at fair value – Practical problems.

### **SKILL DEVELOPMENT**

- Collect statements of an Organization and Calculate Important Accounting Ratio's
- Collection of financial statements of any one organization and prepare fund flow statement
- Collection of financial statements of any one organization and prepare cash flow statement
- Preparation of Consolidated Financial Statement of any two existing companies.

### **BOOKS FOR REFERENCE:**

1. Practice in Management Accountancy by Monilal Das - Rabindra Library Publication.
2. Management Accounting by Dr. S. P. Gupta - Sahitya Bhavan Publications.
3. Management Accounting by M. Y .Khan and P. K. Jain – Tata McGraw Hill.
4. Management Accounting by Shashi K. Gupta and R. K. Sharma, Kalyani Publishers.