

2022



Centurion
UNIVERSITY
Shaping Lives...
Empowering Communities...

COURSE BOOK

Bachelor of Management Studies
(Airlines and Airport Management)
Choice Based Credit System
(BMS-CBCS)

School of Management

Centurion University of Technology & Management
HIG-4, Floor 1&2, Jaydev Vihar, Opp Pal Heights,
Bhubaneswar, Dist: Khurda, Odisha, India
<http://www.cutm.ac.in>

Bachelor of Management Studies

(Airlines and Airport Management)

Level: Graduate

Duration: 3 years (6 semesters)

Eligibility Criteria: 10+2 pass or equivalent in any discipline and Centurion University Entrance Exam (CUEE) score

Unique Features

1. First time in Odisha
2. International placement assistance
3. Paid internship opportunity at leading aviation companies in India and abroad
4. Industry oriented curriculum
5. Highly qualified faculty (industry experts and subject matter specialists)
6. Industry integrated hands on training and internship
7. Flexibility through choice based credit system
8. Innovative pedagogy
9. Individual student level mentoring and guidance

About the Programme

Airlines and airport management is one of the most sought-after career avenues at present. This programme is designed to develop industry ready professionals to join the aviation sector with specialization in various functional areas pertaining to airlines and airport management. The innovative curriculum and the Choice Based Credit System (CBCS) empowers the students to take command of their learning paths and goals. The outcome-based learning and teaching pedagogy adopted by the seasoned faculty nurtures and develops the students with the knowledge, skills, competency and attitude required by the aviation companies. This programme offers specializations in several emerging domains through a blend of classroom discussions, case analysis, simulations, field visits and hands-on experience through industry integrated internships.

Career Opportunities

After successful completion of this programme students would get plenty of opportunity to work in airlines and general aviation as flight planning, ground operations, ramp executive, flight dispatcher, airline safety, airline security, airline commercial and many such roles.

Programme Objectives

This programme aims at:

- developing students as highly skilled aviation management professionals with the knowledge, skills, competency and attitude required by the aviation companies
- equip the students with specializations in emerging domains as required by the aviation industry
- nurturing students to take leadership to meet the current and future needs of the industry

Course Outcomes

After successful completion of the programme students will be able to:

- identify, assess and articulate cultural, ethical, social, economic, environmental and sustainability issues pertaining to the aviation industry and provide feasible solutions.
- analyse the dynamic ecosystem of airlines and airport management and design appropriate interventions for effective and efficient decision making.
- utilize critical thinking and problem solving skills for uninterrupted and smooth functioning of an airport or airline.
- demonstrate command over apt communication skill through coherent write-ups and presentations
- lead, collaborate with others and function as a performing team
- apply aviation and business management knowledge in local, national and international context.

Programme Structure

Basket	Course Category	Credits	Course Type
I	Core Courses (CC)	84	Compulsory
II	Ability Enhancement Compulsory Courses (AECC)	8	Compulsory
III	Generic Electives (GE) / Interdisciplinary Courses	24	Elective
IV	Skill Enhancement Courses (SEC)	8	Elective
V	Discipline Specific Electives (DSE)	24	Elective
Total Credits		148	

Course Details

CORE COURSES

T+P+P stands for Theory + Practice + Practical

Sl. No	Code	Course	Credit	T+P+P
1	CUTM1209	Fundamentals of Management	4	3+0+1
2	CUTM1210	Organisational Behaviour	4	3+0+1
3	CUTM1211	Statistics for Business Decisions	6	4+2+0
4	CUTM1212	Managerial Economics	6	4+0+2
5	CUTM1213	Business Accounting	6	4+0+2
6	CUTM1214	Macro Economics	6	4+0+2
7	CUTM1215	Principles of Marketing	6	4+0+2
8	CUTM1216	Management Accounting	6	4+0+2
9	CUTM1217	Business Research	6	4+0+2
10	CUTM1218	Human Resource Management	6	4+0+2
11	CUTM1219	Financial Management	6	4+0+2
12	CUTM1220	Quantitative Techniques for Management	6	2+4+0
13	CUTM1221	Legal Aspects of Business	4	3+1+0
14	CUTM1222	Business Policy and Strategy	6	4+1+1
15	CUTM1223	Investment Banking & Financial Services	6	4+0+2

ABILITY ENHANCEMENT COMPULSORY COURSES

Sl No	Code	Course	Credit	T+P+P
1	CUTM2496	Airline Grooming and Soft Skill	4	0+4+0
2	CUTM1674	Environmental Science	4	3+0+1

SKILL ENHANCEMENT COURSE

Sl No	Code	Course	Credit	T+P+P
1	CUTM2497	Company Management Operation	2	1+0+1
2	CUTM2498	Airmanship	2	0+1+1
3	CUTM1224	Summer Internship	4	0+0+4

GENERIC/ INTERDISCIPLINARY ELECTIVE

Sl. No	Code	Course	Credit	T+P+P
1	CUTM2499	Fundamentals of Airline and Airport Industry	2	1+0+1
2	CUTM2500	COP RTR	6	1+3+2
3	CUTM2501	Ramp Operation and Management	4	1+1+2
4	CUTM2502	Airline and Airport Security Management and Operation	6	2+2+2
5	CUTM2503	Airline & Airport Safety Management and Operation	6	2+2+2

DISCIPLINE SPECIFIC ELECTIVES

Sl. No	Code	Course	Credit	T+P+P
1	CUTM2504	Cargo Management and Operation	6	2+2+2
2	CUTM2505	Passenger and Public Handling in Airline and Airport	3	1+1+1
3	CUTM2506	Airport Management and Operation	6	2+2+2
4	CUTM2507	Meteorology	3	1+1+1
5	CUTM2508	Dangerous Goods	6	2+2+2

Course Curriculum
CORE DISCIPLINE

Fundamentals of Management

Code: CUTM1209

Credit: 3+0+1

Course Rationale: This course is intended to provide the basic knowledge about business organization, management theories and principles of management. This course will enhance the conceptual understanding of students in the management discipline.

Course Objective: To make the students understand

- Organization and forms of organization
- Theories of management
- Fundamentals of managing business

Course Outcome: After completion of this course students will be able to

- Distinguish various forms of organization existing in the society and appreciate their relevance
- Apply appropriate managerial principles and theories on the work front

Course contents:

Module I

Types of Organizations: Government, Market, Civil Society; Basic forms of business ownership; Special forms of ownership: Franchising, Licensing, Leasing; Choosing a form of Business ownership; Corporate Expansion: mergers and acquisitions, diversification, forward and backward integration, joint ventures, strategic alliance.

Module II

Evolution of Management Theory: Pre-scientific era, Scientific Management (Taylor), Administrative Management (Fayol), Bureaucratic Management (Weber), Human Relations (Follett & Mayo), Behavioral School (McGregor, Simon, Bernard).

Module-III

Managerial functions (Gullick), Managerial skills (Kartz) and Managerial Roles (Mintzberg). Insights from Indian practices and ethos.

Module-IV

Overview of Planning: Types of Plans & The planning process; Decision making: Process, Types and Techniques. Control: Function, Process and types of Control; Principles of organizing: Common organisational structures; Delegation & Decentralization: Factors affecting the extent of decentralization, Process and Principles of delegation.

Readings:

1. Gilbert: Principles of Management, McGraw Hill.
2. Koontz & Heinz Wehrich: Essential of Management, McGraw Hill.
3. Richard L. Daft: Principles of Management, Cengage Learning India.
4. Stephen P. Robbins & Mary Coulter: Management, Pearson.
5. Stoner & Wankel: Management, Prentice Hall of India.

Organisational Behaviour

Code: CUTM1210

Credit :3+0+1

Course Rationale: This course aims to help the students to acquire and develop skill to understand, analyse the behaviour of people within the organisation.

Course Objective

To help students to observe, experience, analyze individual behaviour and Group behaviour.

- Students will learn in improving employee behaviour, enhancing leadership skills.
- Students will learn on how to increase employee motivation and satisfaction.

Course Outcomes

- Students will be able to understand the behaviour of people in the organisation in order to be employed and applicability of the concept of organisational behaviour.
- Examining the work styles, communication preferences and employee traits that can help to create effective work teams in the organisation.
- Will be able to understand the own management style as it relates to influencing and managing behaviour in the organization systems thus helping in enhancement of critical thinking and analysis skills.
- Developing the competency to assess others behaviour, give feedback and integrate into group environment which will help in employees growth in their organisation thus helping in becoming an entrepreneur as well.

Course Syllabus

Module - I

The study of organizational behaviour: Concept, nature, scope and importance of OB. Learning: Concept and theories of learning,

Module - II

Perception: Concept, nature and process; Personality: Determinants of personality, theories of personality, individual difference, matching personality and jobs, personality and organisation. Motivation: Concepts and their application, need, content & process theories.

Module - III

Groups and Teams: Definition, difference between groups and teams; stages of group development, group cohesiveness, types of teams; Leadership: Styles and theories. Attitude: Characteristics and components of attitude, attitude & productivity, Cognitive dissonance theory.

Module IV

Organisational Power and Politics: Nature of organisational politics. Conflict: Concept, sources, types, stages of conflict, management of conflict, Organisational Change: Concept, Kurt Lewin theory of change, resistance to change, managing resistance to change.

Books Recommended

1. Stephen P. Robbins - Organizational Behaviour, PHI
2. L.M. Prasad - Organizational Behaviour, Sultan Chand & Sons.
3. R. Aswathappa - Organizational Behaviour, Himalaya Pub. House.

Statistics for Business Decisions

Code: CUTM1211

Credit: 4+2+0

Course Rationale: This course intends to help students to deal with uncertainties by forecasting economic fluctuations through different statistical tools.

Course Objectives

- The objective of this course is to familiarise students with the basic statistical tools used for Managerial decision-making.

Course Outcomes

- Students will be well equipped to recognize the problem, use appropriate sampling techniques, formulate the appropriate hypothesis, use the appropriate measures of central tendency, measures of dispersion, hypothesis testing technique, and interpret the results thereof.
- Students will also be able to use excel for data analysis and hypothesis testing.

Course Syllabus

Module-I

Statistics: Definition, scope and its limitations. Introduction to sampling, Random sampling vs. non-random sampling, Types of sampling, Simple random sampling, stratified random sampling, systematic cluster sampling, Distributions, sampling error, Classification and tabulation of data.

Module-II

Measures of Central Value: Mean, Median, Mode, harmonic mean and geometric mean. Merits, Limitations and Suitability of averages. Relationship between averages.

Measures of Dispersion: Meaning and Significance. Absolute and Relative measures of dispersion - Range, Quartile Deviation, Mean Deviation, Standard Deviation, Coefficient of Variation, Which Measure of Dispersion to Use?

Module-III

Correlation Analysis: Meaning and significance. Correlation and Causation, Types of correlation. Methods of studying simple correlation - Scatter diagram, Karl Pearson's coefficient of correlation, Spearman's Rank correlation coefficient.

Regression Analysis: Meaning and significance, Regression vs. Correlation, Linear Regression, Regression lines (X on Y, Y on X) and Standard error of estimate.

Module-IV

Probability: Meaning and need. Theorems of addition and multiplication. Conditional probability. Bayes' theorem, Random Variable- discrete and continuous.

Hypothesis testing: Concept, Level of Significance, Steps of hypothesis testing, Test of hypothesis concerning Mean; Test of hypothesis- t test, Z test and chi-square test

Books recommended:

10. S.P. Gupta (S.P.): Statistical Methods, Sultan Chand & Sons, 34th Edition.
11. Richard Levin & David Rubin: Statistics for management, Prentice Hall.
12. Anderson, Sweeny & Williams: Statistics for Business and Economics, South Western.

Managerial Economics

Code: CUTM1212

Credit: 4+0+2

Course Rationale: The paper focuses on various micro economic concepts like demand, supply, cost, market etc. It will ensure a manager to understand the market and forecast the business environment.

Course Objectives

- To apply micro economic concepts and techniques in evaluating business decisions taken by firms
- How tools of standard price theory can be employed to formulate a decision problem, evaluate alternative courses of action and finally choose among alternatives

Course Outcomes

- The students will be able to understand the basic concepts of micro economics and its application.
- Can make optimal decisions by integrating the concept of economics and business

Course Syllabus

Module I:

Economics: Central problem of an economy. Theory of consumer behaviour: cardinal utility theory, ordinal utility theory(indifference curves, budget line, consumer choice, price effect, substitution effect, income effect for normal, inferior and giffen goods). Demand, Supply and Market equilibrium: individual demand, market demand, individual supply, market supply, market equilibrium; Elasticity of demand and supply.

ModuleII:

Producer and optimal production choice: optimizing behaviour in short run (geometry of product curves, law of diminishing marginal productivity, three stages of production), optimizing behaviour in long run (isoquants, isocost line, optimal combination of resources) Costs and scale: traditional theory of cost (short run and long run, geometry of cost curves, envelope curves), modern theory of cost (short run and long run), economies of scale.

Module III:

Theory of firm and market organization: perfect competition, monopoly, price discrimination; monopolistic competition-basic features, demand and cost, short run equilibrium, long run equilibrium, excess capacity.

ModuleIV: Factor market: demand for a factor by a firm under marginal productivity theory perfect competition in the product market, monopoly in the product market, market demand for a factor, supply of labour, market supply of labour, factor market equilibrium.

Books Recommended:

1. Dominick Salvatore (2009). Principles of Microeconomics (5th ed.) OxfordUniversity Press
1. Lipsey and Chrystal. (2008). Economics. (11th ed.) Oxford University Press
2. Koutosyannis (1979). Modern Micro Economics. Palgrave Macmillan
3. Pindyck, Rubinfeld and Mehta. (2009). Micro Economics. (7th ed.). Pearson

Business Accounting

Code: CUTM1213

Credit: 4+0+2

Course Rationale:

This course emphasis on the role, functions and interpretation of accounting require for managers. It will help students in applying the knowledge to work in the corporate environment. This course will expose students to gain knowledge on accounting and its applications of accounting in diriment corporate sectors.

Course Objective:

- To familiarise with the basic conceptual frame work of Financial Accounting i.e., from recording of transactions for Understanding and Interpreting of Financial Statements.
- To provide the knowledge to the students about financial statements and principles underlying them and to develop their skills in reading Annual Reports.
- To provide thorough understanding and techniques of financial statements analysis.

Course Course Outcomes

On successful completion of this course, students will be able to:

- Develop an awareness and understanding of the accounting process and fundamental accounting principles that underpin the development of financial statements (e.g. accrual accounting vs. cash accounting, definition, recognition, measurement and disclosure of assets, liabilities, revenues, expenses; inventory valuation methods and methods of depreciation).
- Understand and interpret the nature and role of the principal financial statements (i.e., the Income Statement, the Statement of Financial Position, and the Statement of Cash Flows).
- Read, interpret and analyze financial statements; combine financial analysis with other information to assess the financial performance and position of a company;

Course Syllabus

Module: I

Accounting, meaning, definition, objectives, scope, basic, terms, accounting principles, branches of accounting, uses & limitations of Accounting, Concepts & Conventions, Accountings uses, Accounting information, Accounting equations – Meaning of accounting equation, compensation of accounting, effects of transactions.

Module: II

Basic Accounting Procedure – Journal, rules of debit & credit, method of journalizing, advantage, double entry system – its advantage, ledger, meaning, utility, posting entries. Practical system of book keeping – Cashbook, types of cash book, Single column, double column, entries, Trial Balance, Objective, preparation, errors & rectification, Suspense Accounting – meaning, utility & preparation.

Depreciation: meaning, causes, factors affecting depreciation, methods of charging depreciation, straight line and written - down methods.

Module: III

Preparation of Financial Statements: Preparation of trading account, profit & loss account and balance sheet for a sole proprietor, understanding financial statements of a joint stock company, activities of cash flow statement, understanding the contents of a corporate annual report,

Module: IV

Analyzing Financial Statements: Objectives of financial statement analysis; sources of information; standards of comparison; techniques of financial statement analysis - horizontal analysis, vertical analysis, and ratio analysis. Meaning and usefulness of financial ratios; analysis of financial ratios from the perspective of different stakeholders like investors, lenders, and short-term creditors; profitability ratios, solvency ratios, liquidity ratios, and turnover ratios; limitations of ratio analysis.

Books Recommended:

1. Financial Accounting by S. N. Maheshwari and Suneel K Maheshwari, Vikas Publishing House
2. R. Narayanaswamy, Financial Accounting: A Managerial Perspective, PHI
3. Financial Accounting by Jawaharlal and Seema Srivastava, HPH
4. Financial Accounting by P. Jain and K. L. Narang , Kalyani Publishers.

Macro Economics

Code:CUTM1214

Credit: 4+0+2

Course Rationale: The course aims at providing the student with knowledge of basic concepts of the macro economics. The modern tools of macro-economic analysis are discussed and the policy framework is elaborated, including the open economy.

Course Objectives:

- Develop a macro-economic perspective
- Understand macro-economic paradigms

Course Outcomes:

- Apply macroeconomic perspective to solve business problems

Course Syllabus:**Module I: Measurement of macroeconomic variables:**

Circular flow of Income; National Income Accounts, Gross Domestic Product, National Income, Personal and Personal disposable income; Classical theory of income and employment: Quantity Theory of Money – Cambridge version, Classical aggregate demand curve, Classical theory of interest rate.

Module II: Keynesian theory of Income and employment:

Simple Keynesian model, components of aggregate demand-Consumption, Saving, Investment, equilibrium income, changes in equilibrium, multiplier (investment, Government expenditure, lump sum tax, foreign trade).

Module III: Money:

Functions of money, quantity theory of money, determination of money supply and demand, H theory of money multiplier, indicators and instruments of monetary control; Inflation: meaning, demand and supply side factors, consequences of inflation, anti-inflationary policies, natural rate theory, monetary policy-output and inflation, Phillips curve (short run and long run).

Module IV: Open Economy:

Brief introduction to BoP account, market for foreign exchange and exchange rate, monetary and fiscal policy in open economy.

Books Recommended

1. Froyen, R. T., 'Macroeconomics', Theories and Policies, Pearson
2. Mankiw, G. N., 'Macroeconomics', Worth publishers
3. Dornbusch and Fischer, 'Macroeconomics', Tata McGraw Hill

Principles of Marketing

Code: CUTM1215

Credit: 4+0+2

Course Rationale: This course aims to familiarize students with the marketing function in organizations. This course shall identify the foundation terms and concepts that are commonly used in marketing. This course shall expose the students to the various marketing strategies that are used by the organizations in the prevailing environment.

Course Objectives:

CO1. This course aims to familiarize students with the marketing function in organizations.

CO2. It will equip the students with understanding of the Marketing Mix elements and sensitize them to certain emerging issues in Marketing.

CO3. The course will use and focus on Indian experiences, approaches and cases.

Course Outcomes: After the completion of the course, the students

LO1. Will be able to analyze the various marketing approach in today's competitive scenario.

LO2. Will be able to evaluate the nature, process and importance of various marketing plans.

LO3. Will be able to examine the correlation of various elements of marketing mix in business.

Course Contents:

Module: I

Introduction: Nature, Scope and Importance of Marketing, Evolution of Marketing; Core marketing concepts; Company orientation - Production concept, Product concept, Selling concept, Marketing concept, Holistic marketing concept.

Marketing Environment: Demographic, economic, political, legal, socio cultural, technological environment (Indian context); Portfolio approach – Boston Consultative Group (BCG) matrix

Module: II

Segmentation, Targeting and Positioning: Levels of Market Segmentation, Basis for Segmenting Consumer Markets, Difference between Segmentation, Targeting and Positioning; Consumer Behavior-Need for study, Factors influencing buying decisions and Stages in buying process.

Module: III

Product & Pricing Decisions: Concept of Product Life Cycle (PLC), PLC marketing strategies, Product Classification, Product Line Decision, Product Mix Decision, Branding Decisions, Packaging & Labeling, New Product Development. Pricing Decisions: Determinants of Price, Pricing Methods (Non-mathematical treatment), Adapting Price (Geographical Pricing, Promotional Pricing and Differential Pricing).

Module: IV

Promotion Mix: Factors determining promotion mix, Promotional Tools –basics of Advertisement, Sales Promotion, Public Relations & Publicity and Personal Selling; Place (Marketing Channels): Channel functions, Channel Levels, Types of Intermediaries: Types of Retailers, Types of Wholesalers. Marketing of Services - Unique Characteristics of Services, Marketing strategies for service firms – 7Ps, Digital Marketing (Concept and Tools)

Text books:

1. Kotler, P. & Keller, K. L.: Marketing Management, Pearson.
2. Kotler, P., Armstrong, G., Agnihotri, P. Y., & Ul Haq, E.: Principles of Marketing: A South Asian Perspective, Pearson.

Reference books:

1. Ramaswamy, V.S. & Namakumari, S.: Marketing Management: Global Perspective-Indian Context, Macmillan Publishers India Limited.
2. Zikmund, W.G. & D' Amico, M.: Marketing, Ohio: South-Western College Publishing.

Management Accounting

Code: CUTM1216

Credit: 4+0+2

Course Rationale: This course will equip the students with various concepts, tools, and techniques of Cost and Management accounting. It will provide an understanding of methods of cost accounting and its relevance in management decision making. Students will be able to apply and improve the operations of organizations through the application of management accounting techniques.

Course Objectives:

- To acquaint students with role of Management Accounting in planning, control and decision-making.
- To provide an understanding of methods of cost accounting and its relevance in management decision making

Course Outcomes:

Upon successful completion of this subject students will be able to

- Apply and improve the operations of organizations through the application of management accounting techniques
- Apply relevant costing methods to analyze specific business issues
- Develop plan and budgets for different business

Course Syllabus:

Module: I

Nature, Scope of Management Accounting: Meaning, definition, nature and scope of Management Accounting; Comparison of Management Accounting with Cost Accounting and Financial Accounting. Cost concepts: Meaning, Scope, Objectives, and Importance of Cost Accounting; Cost, Costing, Cost Control, and Cost Reduction; Elements of Cost, Components of total Cost, Cost Sheet. Classification of Costs: Fixed, Variable, Semivariable, and Step Costs; Product, and Period Costs; Direct, and Indirect Costs; Relevant, and Irrelevant Costs; Shut-down, and Sunk Costs; Controllable, and Uncontrollable Costs; Avoidable, and Unavoidable Costs; Imputed / Hypothetical Costs; Out-of-pocket Costs; Opportunity Costs; Expired, and Unexpired Costs; Conversion Cost. Cost Ascertainment: Cost Unit and Cost Center. Introduction to Overhead allocation, Overhead apportionment, and Overhead absorption.

Module: II

Cost-Volume-Profit Analysis: Contribution, Profit-Volume Ratio, Margin of safety, Cost Break-even Point, Composite Break-even Point, Cash Break-even Point, Key Factor, Break-even Analysis. Relevant Costs and Decision Making: Pricing, Product Profitability, Make or Buy, Exploring new markets, Export Order, Sell or Process Further, Shut down vs. Continue.

Module: III

Budgets and Budgetary Control: Meaning, Types of Budgets, Steps in Budgetary Control, Fixed and Flexible Budgeting, Cash Budget. Responsibility Accounting: Concept, Significance, Different responsibility centers, Divisional performance – Financial measures, Transfer pricing.

Module: IV

Standard Costing and Variance Analysis: Meaning of Standard Cost and Standard Costing, Advantages, Limitations and Applications; Material, Labor, Overhead and Sales variances. Introduction to Target Costing, Life Cycle Costing, Quality Costing, and Activity based Costing.

Books Recommended:

1. C.T. Horngren, Gary L. Sundem, Jeff O. Schatzberg, and Dave Burgstahler: Introduction to Management Accounting, Pearson
2. M.N. Arora: A Textbook of Cost and Management Accounting, Vikas Publishing House Pvt. Ltd.
3. M.Y. Khan, and P.K. Jain, Management Accounting: Text Problems and Cases, McGraw Hill Education (India) Pvt. Ltd.
4. S.N. Maheshwari, and S.N. Mittal, Cost Accounting: Theory and Problems, Shree Mahavir Book Depot (Publishers)

Business Research

Code: CUTM12170

Credit: 4+0+2

Course Rationale: This course of research methodology is for imparting the knowledge of different areas of research to the students. The course is concerned with systematic gathering and analysis of information needed either to understand or to solve a managerial problem or a phenomenon. The objective of the course is to sensitize students with an appropriate research design, several research techniques, to enable them to conduct investigations within and outside their organizations.

Course Objectives

- To get students acquainted with basics of research and to deliver theoretical knowledge of research methodology and its application in business world
- To formulating a hypothesis

- Collecting the facts or data, analysing the facts and reaching certain conclusions either in the form of solutions(s) towards the concerned problem or in certain generalisations for some theoretical formulation

Course Outcomes

- The students will be able to formulate the hypothesis and conduct independent research

Course Syllabus

Module I

Introduction to business research, Importance of Research in Decision – Making, Defining Research Problem and Formulation of Hypothesis, Experimental designs. Steps in the research process; the research proposal; Problem Formulation: Management decision problem

Module II

Research Design: Exploratory, Descriptive, Causal. Secondary Data Research: Advantages & Disadvantages of Secondary Data, Criteria for evaluating secondary sources, secondary sources of data in Indian Context, Syndicated Research in India

Module III

Primary Data Collection: Survey Vs. Observations. Comparison of self-administered, telephone, mail, emails techniques. Qualitative Research Tools: Depth Interviews focus groups and projective techniques; Measurement & Scaling: Primary scales of Measurement-Nominal, Ordinal, Interval & Ratio. Scaling techniques paired comparison, rank order, constant sum, semantic differential, itemized ratings, Likert Scale; Questionnaire-form & design.

Module IV

Sampling: Sampling techniques, determination of sample size; Data Analysis: Z test (mean, diff. of mean, diff. of proportion) t test (mean), paired t test, Chi square test, Introduction to theoretical concept of ANOVA, Factor Analysis and Discriminant Analysis.

Books Recommended:

1. Research methodology Methods and Techniques C R Kothari
2. Business Research Methods- Donal R. Cooper & Pamela S. Schindler

Human Resource Management

Code: CUTM1218

Credit: 4+0+2

Course Rationale:

This course intends to provide knowledge and skills to manage human resources of an organization.

Course Objectives

- To acquaint students with knowledge and skills to manage and resolve human resource issues faced by organizations in general.
- To equip students with tools to be used in human resource planning, recruitment and selection.
- To provide knowledge on types of training programs and their importance
- To develop understanding on methods of performance appraisal, compensation policies and their effectiveness in organizations
- To make the students appreciate the importance of employee health and safety; employee welfare, Grievance handling mechanism and healthy employer- employee relations.

Course Outcomes

After completion of the course, the learner will be able to:

- Prepare a Human Resource Plan in an organisation
- Prepare report on job analysis and manage the recruitment and selection process.
- Organize an induction programme for newly joined employees
- Develop a training design and implement the same
- Prepare appropriate performance management procedure
- Create HR policies related to grievance redressal, health, safety and to promote healthy interpersonal relationships in an organization.

Course Contents:

Module: I

Concept, nature and scope of human resource management vis-a-vis personnel management. role and functions of HR manager, HR role in strategy formulation, Emerging challenges of human resource management

Module: II

Human Resource planning: Forecasting demand and supply, HRIS, succession planning; **Job analysis:** job description & job specification; **Recruitment and Selection:** Sources of recruitment (internal & external), E- recruitment, Selection Process; **Orientation Process.**

Module: III

Human Resource Development: Concept and challenges **Training and Development:** Concept, needs, methods and effectiveness; **Career Planning:** Career anchor and career life stages; **Performance Management System:** concepts, use, methods, common problems of rating; **Compensation:** job evaluation, components of pay structure, factors influencing compensation levels, wage differentials & incentives, profit sharing, gain sharing, employees' stock option plans, fringe benefits

Module: IV

Industrial Relations: Introduction to industrial relations, Trade unions role, types, functions, problems, **Industrial dispute-** concept, causes & machinery for settlement of disputes; **Grievance-** concepts, causes & grievance redressal machinery; **Discipline-** concept, aspect of discipline & disciplinary procedure; **Collective Bargaining-** concept, types, process, problems, essentials of effective collective bargaining .

Text Books:

- Dessler, G: Human Resource Management, Pearson.
- Pattanaik B - Human Resource Management, PHI
- E.B. Flippo-Personnel Management
- C.B. Mamoria - Personnel Management.
- R. Armstrong- Human Resources Management
- Fisher Schenfeldt & Shaw - Human Resource Management
- P. Subba Rao - Human Resources Management - Texts & Cases, Excell Books

Financial Management

Code: CUTM1219

Credit: 4+0+2

Course Rationale:

- It focuses on graduating students with in-depth knowledge of corporate finance, investment management and corporate evaluation. Apply appropriate methods and analytical procedures to conduct analysis of practical financial problems and propose valid solutions based on this analysis.

Course Objective:

- The course aims to familiarize the learners with the principles and practices of financial management.

Course Outcomes: After completion of the course, learners will be able to:

- Explain the nature and scope of financial management;
- Assess the impact of time value of money in different business decisions;
- Analyze capital budgeting process and apply capital budgeting techniques for business decisions;
- Discuss the various sources of finance in today's competitive industry;
- Explain various capital structure theories and analyze factors affecting capital structure decisions;
- Critically examine various theories of dividend, identify and analyze factors affecting dividend policy; and suggest sound dividend policy;
- Design working capital policy based on the assessment of financial requirements.

COURSE CONTENTS:

Module I:

Introduction

Nature of Financial Management: Finance and related disciplines; Scope of Financial Management; Profit Maximization, Wealth Maximization - Traditional and Modern Approach; Functions of finance – Finance Decision, Investment Decision, Dividend Decision; Objectives of Financial Management; Organisation of finance function; Concept of Time Value of Money, present value, future value, and annuity; Risk & Return: Historical return, expected return, absolute return, holding period return, annualized return, arithmetic & geometric return; Risk - Systematic & unsystematic risk – their sources and measures.

Module II: Cost of Capital and Financing Decision

Different Sources of Finance including internal sources, external sources and other sources, Concept and Measurement of Cost of Capital: Explicit and Implicit costs; Measurement of cost of capital; Cost of debt; Cost of perpetual debt; Cost of Equity Share; Cost of Preference Share; Cost of Retained Earning; Computation of over-all cost of capital based on Historical and Market weights, Capital Structures: Approaches to Capital Structure Theories - Net Income approach, Net Operating Income

approach, Modigliani-Miller (MM) approach, Traditional approach, Capital Structure and Financial Distress; Leverage Analysis: Operating and Financial Leverage; EBIT -EPS analysis; Combined leverage.

Module III: Capital Budgeting

Long -term investment decisions: Capital Budgeting - Principles and Techniques; Nature and meaning of capital budgeting; Estimation of relevant cash flows and terminal value; Evaluation techniques - Accounting Rate of Return, Net Present Value, Internal Rate of Return & MIRR, Net Terminal Value, Profitably Index Method..

Module IV: Managing Profit

Trade-Off Theory. Dividend Policy Decision - Dividend and Capital; The irrelevance of dividends: General, MM hypothesis; Relevance of dividends: Walter's model, Gordon's model, Forms of dividend payment, types of dividend policies and Determinants of Dividend policy.

Module V: Working Capital Decisions

Working Capital Management: Management of Cash - Preparation of Cash Budgets (Receipts and Payment Method only); Cash management technique, Receivables Management – Objectives; Credit Policy, Cash Discount, Debtors Outstanding and Ageing Analysis; Costs - Collection Cost, Capital Cost, Default Cost, Delinquency Cost, Inventory Management (Very Briefly) - ABC Analysis; Minimum Level; Maximum Level; Reorder Level; Safety Stock; EOQ, Determination of Working Capital.

Text Books:

- Chandra, P. (2007).. Financial Management-Theory and Practice. New Delhi: Tata McGraw Hill.
- Pandey, I. M. (2015). Financial Management. New Delhi: Vikas Publications.

Reference Books:

- Khan, M.Y & Jain, P. K (2018). Financial Management New Delhi: Tata McGraw Hill.

Quantitative Techniques for Management

Code: CUTM1220

Credit: 2+4+0

Course Rationale: The paper aims to provide advance quantitative tool that can be used by the students to enhance the business decisions

Course Objectives

- To learn about the operations research techniques, model formulation and applications used to solve business decisions by using computer software

Course Outcomes

- Ability to formulate complex problems into mathematical models to solve using software
- Propensity to interpret the results for optimize the costs
- Administer of different tools to focus on business decisions

Course Syllabus

Course contents

Module-I: LPP: LP Introduction, Formulation of LPP, and Solution of LPP by Graphical Method Simplex Method, Penalty Method, Special Cases in LPP, Duality and Dual Simplex Method in LPP

Module-II: Transportation Models: Initial and Optimal Solution, Assignment Models: Hungarian and Travelling Salesman Problems , Sequencing Problems

Module-III: Network Analysis, PERT, CPM and Crashing

Module-IV: Game Theory and strategies.

Books Recommended

1. Frederick S. Hillier & Gerald J. Lieberman, *Introduction to Operations Research*, McGraw-Hill: Boston MA; 10th Edition, 2014
2. Taha, Hamdy A., "Operations Research: An Introduction", Pearson, 10th Edition, 2016
3. Harvey M. Wagner, *Principles of Operations Research*, Englewood Cliffs, Prentice-Hall, 1969
4. S D Sharma and Himansu Sharma, Operations Research: Theory, Methods and

Legal Aspects of Business

Code: CUTM1221

Credit: 3+1+0

Course Rationale: The subject will provide the legal rules and principles of the Country on which the Business Operations takes place. The Subject explains these rules and principles which forms the basis of our New Age Business Transactions.

Course Objectives

- This course provides an understanding of the basics of Business Law which an employee might face in the day -to-day working of the Organisation.
- The course also differentiates between Social Contracts and Business Contracts and liabilities arising out of it.
- Students are expected to be familiar with various aspects associated with the Sale of Goods and relating to the protection of Consumers.

Course Outcomes

- The students will have a better understanding of the legal consequences of the business transactions entered on behalf of the Employer by the Employee.
- The Student will understand the cautions to be exercised while signing any contracts and understand the legal consequences arising out of such contracts,e.g.Loan Contracts and Insurance Contracts.
- While selling and purchasing goods the student will keep in mind the provisions of the Sale of Goods Act and Consumer Protection Act.

Course Syllabus

Module-I

Indian Contract Act, Essential elements of contract, Offer and Acceptance, Consideration, Capacities of parties, Free consent, contingent contract , discharge of contract, Special Contracts - Quasi contract, Indemnity and Guarantee, Bailment and pledge

Module-II

Sale of Goods Act 1930: Sale and agreement to sell, Implied conditions and warranties, sale by non-owners

Module-III

The Companies Act 2013: Meaning and types of Companies, Incorporation, Memorandum & Articles of association, Prospectus, The Limited Liability Partnership Act 2008: Meaning and nature of limited partnership, Formation, partners & their relations

Module-IV

Consumer Protection Act 1986: Objectives and machinery for consumer protection, Consumer Protection Act 1986: defects and deficiency removal, rights of consumers, The Right to Information Act 2005: Salient features and coverage of the act, definition of terms information, right, record, public authority, obligations of public authorities, requesting information and functions of PIO.

Books Recommended

1. Mercantile law by N.D.Kapoor
2. Business and Corporate Law by Dr. P. C Tulsian, S. Chand Publication
3. S.S.Gulshan; Mercantile Law. 3rd Edition, Excel Books, New Delhi.

Business Policy and Strategy

Code: CUTM1222

Credit: 4+1+1

Course Rationale: The paper intends to provide the required tools and techniques for strategy analysis and implementations

Course Objectives

- This course provides an understanding of the strategies formulated by the Business Organisation in order to stay ahead of the Competition and to create a niche in the marketplace.
- The course explains the importance of the Vision and Mission statements from the organisational point of view
- Students are expected to be familiar with the Analysis of the Industry and Company.

Course Outcomes

- The students will be to have a basic understanding of the Business Environment.
- Understand how Industry Analysis can help to choose a right Industry
- Have how Industry Analysis can help to choose a right Industry
- Understand the Value Chain of the Products and Services

Course Syllabus

Module-I

Concept and Functions of Business Strategy, Strategic Management Process, Vision, Mission, Objectives, and Goals, Business and Functional Level strategic management decisions,

Module -II

External Analysis – Environmental Scanning, Analysis of Company's External Environment, PESTEL Analysis, Industry Analysis using Porter's 5 Forces Model, Internal Analysis: Importance of Organization's Capabilities, SWOT Analysis, Competitive Advantage and Core Competencies, Value Chain Analysis

Module -III

Formulation of Competitive Strategies: Porter's Generic Competitive Strategies, Implementing Competitive Strategies-Offensive and Defensive moves, Strategies of Growth, Stability and Retrenchment, Growth Strategies: Concentrated Growth, Product Development, integration, Diversification, International Expansion, Renewal Strategies: Retrenchment & Turnaround, Strategic Fundamentals of Mergers & Acquisitions.

Module -IV

Portfolio Analysis: BCG Matrix, GE Matrix, Strategic Gap Analysis, Strategy Implementation

Books Recommended:

1. Strategic Management and Business Policy -Azhar Kazmi TMH
2. Strategic Management Concept and Cases - Fred r David PHI
3. Business Policy and strategy Mc. CarthyEt AI TMH

Investment Banking & Financial Services

Code: CUTM1223

Credit: 4+0+2

Course Rationale: The paper aims to provide knowledge on Indian Financial Systems, its development and challenges. It will provide insights on main investment banking services.

Course Objectives

- To know the different aspects of Investment banking, mergers and acquisition and the detailed SEBI guidelines on issue management

Course Outcomes

- Orientation about banking and financial concepts covered Managing investment in primary market and secondary market.

Course Syllabus

Module I

Introduction: An Overview of Indian Financial System, Investment Banking in India, Recent Developments and Challenges ahead, Institutional structure and Functions of Investment / Merchant Banking; SEBI guidelines for Merchant Bankers, Registration, obligations and responsibilities of Lead Managers, Regulations regarding Continuance of association of lead manager with an issue

Module II

Issue Management: Public Issue: classification of companies, eligibility, issue pricing, promoter's contribution, minimum public offer, prospectus, allotment, preferential allotment, private placement, Book Building process, designing and pricing, Green Shoe Option; Right Issue: promoter's contribution, minimum subscription, advertisements, contents of offer document, Bought out Deals, Post issue work & obligations, Investor protection, Broker, sub broker and underwriters

Module III

Leasing and Hire Purchase :Concepts of leasing, types of leasing – financial & operating lease, direct lease and sales & lease back, advantages and limitations of leasing, Lease rental determination; Finance lease evaluation problems (only Lessee's angle), Hire Purchase interest & Instalment, difference between Hire Purchase & Leasing, Choice criteria between Leasing and Hire Purchase mathematics of HP, Factoring, forfaiting and its arrangement, Housing Finance : Meaning and rise of housing finance in India, Fixing the amount of loan, repricing of a loan, floating vs. fixed rate, Practical problems on housing finance.

Module IV

Venture Capital: Concept, history and evolution of VC, the venture investment process, various steps in venture financing, incubation financing. Insurance: concept, classification, principles of insurance, IRDA and different regulatory norms, operation of General Insurance, Health Insurance, Life Insurance. Credit Ratings: Introduction, types of credit rating, advantages and disadvantages of credit

ratings, Credit rating agencies and their methodology, International credit rating practices. Securitization: concept, securitization as a funding mechanism, Traditional and non-traditional mortgages, Graduated-payment mortgages (GPMs), Pledged Account Mortgages (PAMs), Centralized Mortgage obligations (CMOs), Securitization of non mortgage assets, Securitization in India.

Books Recommended

1. M.Y.Khan: Financial Services, Tata McGraw –Hill.
2. Machiraju: Indian Financial System, Vikas Publishing House.
3. J.C.Verma: A Manual of Merchant Banking, Bharath Publishing House.
4. K.Sriram: Hand Book of Leasing, Hire Purchase & Factoring, ICFAI, Hyderabad.
5. Ennew.C.Trevor Watkins & Mike Wright: Marketing of Financial Services, HeinemannProfessional

ABILITY ENHANCEMENT COMPULSORY COURSE

Airline Grooming and Soft Skill

Code:

Credit:4 (0+4+0)

Course Objectives

- Increase the analytical and communication skills of students by providing ample opportunities for practice and make them employable.
- A student will be awarded 6 credits upon achieving a minimum benchmark score i.e. 6.5 in IELTS, 60% in Verbal, 60% in Quantitative Aptitude and 60% in Logical Reasoning.

Course Outcomes

- Analytical Ability, ability to plan & strategic, creative & logical thinking, attention to details, ability to recall (Working Memory), problem solving ability, communication skills (written), spatial ability articulation, data interpretation skills, active Listening, ability to visualize, adaptation skills, decision making, ability to analyse pattern & trends.
- Ensure students to reach the Employability level as described in the link: <https://drive.google.com/file/d/1Wst-jdAJuHHVtYC4F-p3SKuw1PHWOI1U/view?usp=sharing>

Course Division

Course I: IELTS - Reading, Listening, Speaking and Writing

Module I: IELTS Reading

- Skimming and Scanning
- Sentence Completion
- Choose the Correct options (A, B, C, D)
- Locating the Specific Information
- Assessment on Reading Skill

Module II: IELTS Listening

- Notes/ Form/Table completion
- Label the Map/Passage, Multiple Choice Questions
- Complete the Sentences, Listening to Find Information
- Assessment on Listening Skills

Module III: IELTS Speaking

- Speaking about yourself, your family, your work and your interests
- Introduction & Interview
- Topic Discussion (e.g, Environment, Covid 19, Job)
- Assessment on Speaking Skills

Module IV: IELTS Writing

- Summarising the chart, table or graph
- Comparing and contrasting graphs and tables
- Describing maps & diagrams
- Agreeing & disagreeing
- Expressing a personal view & opinion
- Assessment on Writing Skill
- CV Writing (2nd year)
- Letter Writing
- Email Writing (2nd year)
- Getting Started –writing an introduction

Course II: IELTS Verbal

Module I: Grammar (4 Hrs)

- Articles
- Prepositions
- Subject-Verb
- Spotting Errors
- Sentence Correction

Module II: Vocabulary (5 Hrs)

- Synonyms
- Antonyms
- Contextual Vocabulary

Module III: Reading Comprehension (3 Hrs)

- Paragraph/ Sentence Completion
- Jumbled Sentences/ Jumbled Paragraph
- Reading Comprehension

Module IV: Verbal Analogies (3 Hrs)

Course III: Quantitative Aptitude

Module I: Number System & Operation (14 Hrs)

- Speed Math-1 : Multiplication tricks, Square, cube, square root, Cube root tricks
- Speed Math-2 : Speed Calculations
- Number System-01 : Operation on Numbers, Classification of Numbers, Tests of Divisibility, Unit Digit Calculation
- Number System-02 : Arithmetic Progression, Geometric Progression, Factors & Factorials, Trailing Zeroes, Remainder Theorem
- HCF & LCM : Concepts, short tricks, question discussion
- Average : Concepts, short tricks, question discussion
- Assessments

Module II: Basic Arithmetic (16 Hrs)

- Percentage-01 : Basics of Percentage, Effective percentage, shortcuts
- Percentage-02 : Advanced questions and discussions
- Profit & Loss-01 : Basics and advanced questions of Profit & Loss and shortcuts
- Profit & Loss-02 : MRP, Discount, Successive discount
- Ratio & Proportion : Types of ratios, Basics & Advanced Question
- Age : Concepts & Shortcuts
- Partnership : Concepts & Shortcuts
- Mixture & Alligation : Rule of Alligation, Basics & Advanced question, Short tricks
- Assessments

Module III: Time & Analysis (17 Hrs)

- Time, Speed, Distance : Concepts, Problems based on relations, Average speed, Stoppage time
- Trains : Relative Speed & All types of train problems
- Boats & Streams : Basics, Upstream, Downstream & Shortcuts
- Race : All concepts & Shortcuts
- Time & Work : Efficiency, wages, alternative day, chain rule
- Pipes & Cistern : Positive & Negative work

- Simple Interest : Concepts & Shortcuts on Simple Interest & Installments
- Compound Interest : Concepts & Shortcuts on Simple Interest & Installments
- Logarithm : All Formulae, concepts & Shortcuts
- Assessments

Module IV: Advanced Arithmetic (16 Hrs)

- Equation : Linear & Quadratic
- Permutation : All concepts & Shortcuts on factorial, fundamental principles of counting
- Combination : All concepts & Shortcuts on Selection (Groups/teams)
- Probability : Terms related to Probability, Event, Theorems related Probability, Conditional Probability. Shortcuts on coins, dices, balls, cards, etc
- Data Interpretation : (Bar/Pi-Chart /Line) graph
- Mensuration : Area & Volume
- Height & Distance : Lines of Sight, Horizontal line, Angle of Elevation, Angle of Depression
- Assessments

Course IV: Logical Reasoning

Module I: Verbal Reasoning-I (14 Hrs)

- Series-1 : Number series (Missing & Wrong)
- Series-2 : Letter, Alpha numeric, Miscellaneous series
- Coding & Decoding : Letter Coding, Number coding, Message coding, Substitution coding, Conditional coding
- Word Problem : Analogy, Odd man out, word formation, letter pair
- Logical Thinking : Brain Riddles
- Assessments

Module II : Verbal Reasoning-II (14 Hrs)

- Order & Ranking : Ranking & Sequence
- Direction Sense Test : Shortest Distance, Angular movement concept and Dusk & Dawn
- Clock : Concepts of Angle, Reflex angle, Right angle Opposite, Coincide and Incorrect clock
- Calendar : All concepts & Shortcuts
- Blood Relation : Jumbled-up descriptions, coded relations, Relation Puzzles
- Assessments

Module III : Non Verbal Reasoning (14 Hrs)

- Cubes & Dices
- Cubes & Cuboids
- Embedded Figure & Figure series
- Figure Puzzle & Figure grouping
- Figure Counting
- Mirror & Water Image
- Paper Cutting & Paper folding
- Assessments

Module IV : Advanced Reasoning (16 Hrs)

- Sitting Arrangement : Circular, Square, Rectangular, Linear, Triangular
- Puzzle : Box, Floor, Month, Day
- Advanced Puzzle : 3 variable

- Logical Venn Diagram
- Syllogism
- Statement & Conclusion
- Data Sufficiency
- Assessments

Course V

Passenger announcements and handling of customers, Airline procedural grooming and etiquette, Safety and emergency procedures, Customer service, Amiability, Cultural awareness, Assertiveness, Self-control, Flexibility, Adaptability, Physical stamina, Stress management, Teamwork, Attention to detail, Leadership, Time Management, Problem solving, First Aid, Food and Beverage training.

Environmental Science

Code: CUTM1674

Credit: 3+0+1

Course Objectives

- • To understand the concept of multi-disciplinary nature of Environmental Science where different aspects are dealt with a holistic approach.
- Students will develop a sense of community responsibility by becoming aware of environmental issues in the larger social context.
- One must be environmentally educated.

Course Outcomes

- • Understand the natural environment and its relationships with human activities.
- Characterize and analyse human impacts on the environment.
- Integrate facts, concepts and methods from multiple disciplines and apply to environmental problems.
- Design and evaluate strategies, technologies and methods for sustainable management of environmental systems and for the remediation or restoration of degraded environments.

Course Syllabus

MODULE-I

Environment and its multidisciplinary nature; Need for public awareness; Renewable and non-renewable resources—forest, water, mineral, land, food and energy resources; Structure and function of ecosystems of forest, grass land, desert and aquatic types.

MODULE-II

Biodiversity and its conservation: Biodiversity at global, national and local levels; Threats to biodiversity -Habitat loss; wild life poaching and man-wildlife conflicts; Endangered and endemic species; conservation measures. Causes, effects and control measures of pollution, air, water and noise pollution; nuclear hazards; solid-waste management

–Causes, effects and control measures; Management of disasters due to natural causes of floods, earthquakes, cyclones and landslides.

MODULE-III

Social issues and the environment; Sustainable environment, Water conservation measures; Rain water harvesting; Resettlement and rehabilitation of people; Climate change and global warming; Acid rain; Ozone layer depletion; water land reclamation; Consumerism and waste products; Features of Environment Protection Act, Air pollution and Control of Pollution Acts; Water Pollution and its Control Act. Effects of Pollution explosion on environment and public health; Need for value education to Protect environment and resources.

Text Book:

1. Anubhav Kaushik & C.P. Kaushik: Environmental Studies -New age International Publishers.

Reference Books:

1. Benny Joseph: Environmental Studies -Tata Mac Graw Hill
2. E. Bharucha: Text book of Environmental Studies for under graduate courses– Universities Press. (Book prepared by UGC Committee).

SKILL ENHANCEMENT COURSE

Company Management Operation

Code: _____ Credit: 2 (1+0+1)

Course Rationale: This course is intended to make the students understand the significance of managing company operation and resources.

Course Objective: To make students understand about

- the importance of company resources management
- the duties and responsibilities of various crew members

Course Outcome: After completion of this course students will be able to

- demonstrate effective and efficient competency to deal with government agencies and other stakeholders

Course Syllabus

MODULE-I

Aviation personals, Aviation QC, Hierarchy, Responsibilities of Aircrew, cabin crew and ground crew

MODULE-II

Organisational behaviour, human factor, Company Resource Management, workplace decorum and discipline, discipline through working with other agencies, discipline for working with government agency during audits

Airmanship

Code: _____ Credit: 2 (0+1+1)

Course Rationale: This course is intended to provide fundamental understanding of airmanship and aircraft handling.

Course Objective: To make students understand about

- the role and importance of airmanship
- various abbreviations used in aviation
- the importance of safety and security with regard to the airline industry

Course Outcome: After completion of this course students will be able to

- fuel aircrafts
- handle aircrafts

Course Syllabus

MODULE-I

Basic Airmanship, Aviation ABBREVIATIONS, Marshalling, Fuelling of aircraft, Aircraft Handling, Aircraft Pushback and towing, Helicopter Operating Areas

MODULE-II

Visual Communications, Airfield Hazard Markings and Obstruction markers, Handling arrival aircraft with emergency, Air Ambulance / Medical emergency flight

Summer Internship

Code: CUTM1224

Credit: 4 (0+0+4)

GENERIC/ INTERDISCIPLINARY ELECTIVE

Fundamentals of Airline and Airport Industry

Code:

Credit: 2 (1+0+1)

Course Rationale: This course is intended to provide basic knowledge about the aviation and Airlines industry.

Course Objective: To make students understand about

- the characteristics of airline industry
- the regulatory authorities of civil aviation
- the importance of safety and security with regard to the airline industry

Course Outcome: After completion of this course students will be able to

- explain the organisational structure of the airline industry
- explain the role and importance of the security, navigation and air traffic control

Course Syllabus

MODULE-I

Air operator permit NSOP, SOP and cargo operations; Airports and its areas; Facilities of airports and ranking; Different departments and Functions of AAI, DGCA, BCAS, IATA and ICAO

MODULE-II

Airline industry, FAA, EASA, JAA, CAA, Civil aviation and airline requirements; Roles and responsibility of key personals; AIP, AIC, CAR, and different types of circulars; Airlines and different types Aircrafts used in of ops; Economic and Social impact; IATA 3 letter codes Airline profitability; New policies of Govt. and future scenario

COP RTR

Code:

Credit: 6 (1+3+2)

Course Rationale: This course is intended to provide an understanding of the COP RTR procedures related to airline and airport management.

Course Objective: To make students understand about

- navigation and ATC procedures
- aircraft navigation and communication
- Radiotelephony procedures and practices

Course Outcome: After completion of this course students will be able to

- perform operations involved in the airport management
- interpret the meteorological data
- adhere to the various regulations involved aviation industry

Course Syllabus

MODULE-I

COP RTR Examination Pattern; ITU and WPC India and rules and regulations

MODULE-II

Radio Theory; Aircraft Communication and Voice Systems; Aircraft Navigation Systems

MODULE-III

Airport and ATC, Aeronautical Services, RADIOTELEPHONY PROCEDURES, Transmitting Technique; General RT Phraseology

MODULE-IV

Aerodrome Control of Aircraft Traffic; Aerodrome Control of Vehicular Traffic; General ATS Surveillance Service Phraseology

MODULE-V

Approach Control; Area Control; Distress and Urgency Procedures and Communications failure procedures

MODULE-VI

Transmission of Meteorological and other Aerodrome Information; Miscellaneous Flight Handling Phraseology; HF Communications; Visual Signals, Runway/Taxiway Markings/Lightings;
PRACTICAL TEST – REGULATIONS AND PROCEDURE

Ramp Operation and Management

Code:

Credit: 4 (1+1+2)

Course Rationale: This course is intended to provide fundamental understanding of aircraft ground despatch operations and management.

Course Objective: To make students understand about

- the computer reservation system and departure operations
- various types of goods, dangerous goods and related security concerns
- booking, seating arrangements and check in process

Course Outcome: After completion of this course students will be able to

- explain the importance of passenger baggage and check in procedure
- elaborate the concept of security
- demonstrate passenger facilitation

Course Syllabus

MODULE-I

Brief description of air side and land side; Physical and mental health of ramp staff; Operational area and non-operational area; Movement control of different vehicles

MODULE-II

Identifications Lines and marks of ramp; Ramp personal portative equipment; Boarding and disembarkation; Placing of baggage and cargo

MODULE-III

Allocating staff in ramp; Ramp communication; Documents required for ramp operation; Per operational check of ramp; Aero braze operation and ladder alignment

MODULE-IV

BMA; BBA; Push back; Cargo and catering uplifting; Taxi in taxi out; Emergency

Airline and Airport Security Management and Operation

Code:

Credit: 6 (2+2+2)

Course Rationale: This course is intended to provide the critically important aspects of security related to aviation industry.

Course Objective: To make students understand about

- aircraft security regulations and processes
- the importance of crime prevention

Course Outcome: After completion of this course students will be able to

- perform security audits
- recognize security threats
- implement security procedures
- control people and tools to ensure complete security

Course Syllabus

MODULE-I

Overview of International Civil Aviation Security; Working at the Airport; Access Control- People and Vehicles

MODULE-II

Recognition of Explosive Devices and Other Prohibited Articles; Building Search Procedures Screening & Searching of Passengers and Baggage; Conventional X- Ray Equipment

MODULE-III

Protection of Aircraft; Physical Inspection of Baggage; Emergencies and contingencies

MODULE-IV

Escorting people and Consignments; Protecting Aircraft Catering Uplift; Protecting Cargo, Mail and Couriers; Passenger Behaviour Detection and Security Environment

Airline & Airport Safety Management and Operation

Code:

Credit: 6 (2+2+2)

Course Rationale: This course is intended to provide the critically important of safety related to aviation industry.

Course Objective: To make students understand about

- aircraft safety regulations and processes
- the importance of crime prevention

Course Outcome: After completion of this course students will be able to

- perform safety audits
- recognize safety threats
- implement safety procedures
- control people and tools to ensure complete safety

Course Syllabus

MODULE-I

Ramp Safety, Rules and Limitations; Safety of Aircraft; Securing Aircraft; Positioning of safety cones; Foreign Objects Debris; Safety of Passengers; Safety of Allocated staff

MODULE-II

Weather Plan; Wing walking; Alignment and Release of Ground Support Equipment; Ambulift alignment

MODULE-III

Guidelines for equipment parking; Medical examination of staff; Circle of safety; Aircraft cleaning; Ramp speed limits

MODULE-IV

Fuelling Safety; Fuelling safety zone; Spillage/leakage action plan; Evacuation of passengers

DISCIPLINE SPECIFIC ELECTIVES

Cargo Management and Operation

Code:

Credit: 6 (2+2+2)

Course Rationale: This course is intended to provide insights to the cargo operations management and documentation procedures.

Course Objective: To make students understand about

- the roles and functions of various agencies and freight forwarders
- the principles of accepting air cargo and rating
- the use of various manuals

Course Outcome: After completion of this course students will be able to

- explain the concept of billing
- describe various terminology used in airline industry
- elaborate detailed documentation of incoming and outgoing flights

Course Syllabus

MODULE-I

Cargo Handling; Acceptance of cargo; Cargo documentation; Determination of weight and documentation of weight

MODULE-II

Cargo loading; Unit load devices; Pallet loading; Container loading; Cabin load; Dangerous Goods cargo

MODULE-III

Hazard classification; Markings and Identification; Acceptance, Handling advice and loading, Documentation for Dangerous Goods; Incidents with Dangerous Goods; Emergency procedures for incidents and accidents with Dangerous Goods

MODULE-IV

Heavy items (HEA); Human remains (HUM); Valuable cargo (VAL); Perishable cargo (PER)

MODULE-V

Food stuffs; Hatching eggs; Vaccines, medical supplies and live organs; Flowers and plants

MODULE-VI

Meat, seafood/fish shipments; Film and press shipments; Air mail; Notification to captain

Passenger and Public Handling in Airline and Airport

Code:

Credit: 3 (1+1+1)

Course Rationale: This course is intended to make the students understand the significance of passenger and public handling in Airline and Airport.

Course Objective: To make students understand about

- the importance of customer service
- the role and importance of culture, communication, empathy and listening in customer service

Course Outcome: After completion of this course students will be able to

- demonstrate effective and efficient methods of contacting passengers

Course Syllabus

MODULE-I

Booking and confirmation of Tickets at reservation counter; Passenger and ticket validation; Flight preparation and Station performance; Passenger Acceptance; Manual Check in procedure; Boarding procedure; Tarmac Arrival; Tarmac Departure; Travel policy; Disruption, Overbooking and Denied for Domestic and international Flights; Special category of passengers handling

MODULE-II

OCS Procedure; Restricted Area Permit; Aircraft documentation; Handling of Inadmissible passengers; Deportee passengers; Process of Through check-In; Process on Wheelchair Handling; Death –on-Board

MODULE-III

Process for Booking No-show and Gate –on-show passengers; Restriction on Baggage weight and excess Baggage charges; Process of Self offload passengers; Process of transfer of passengers to other Airlines

Airport Management and Operation

Code:

Credit: 6 (2+2+2)

Course Rationale: This course is intended to provide the understanding of tariffs, fares and taxes implied on constructing airfare.

Course Objective: To make students understand about

- the International Regulations for Air Transport
- tariffs, fares and taxes implied on constructing airfare

Course Outcome: After completion of this course students will be able to

- create route maps for places all over the world
- demonstrate the ability for proper travel documentation
- guide travellers on travel formalities

Course Syllabus

MODULE-I

Understanding the airports; Ownership and Operation; The Airport business

MODULE-II

Airport Master Planning; The Airport and its operational System; Airport Certification and ranking

MODULE-III

Terminals and types; Airport Security; Support Services; Airport issues and challenges

MODULE-IV

Airport Economics; Airside; Landside

MODULE-V

Testing inspection and audit; Waste managements; Key personals; Key Departments; Govt. Agency

MODULE-VI

Pvt. Collaboration; Value addition; Revenue generation; New revenue generating possibilities

Meteorology

Code:

Credit: 3 (1+1+1)

Course Rationale: This course is intended to equip the students with the appropriate skills and competency required to understand and manage issues related to metrological issues.

Course Objective: To make students understand about

- the procedures, standards and analysis of weather conditions
- the skills and competency required to handle tuff weather conditions

Course Outcome: After completion of this course students will be able to

- identify, analyse and take corrective actions based on weather situations

Course Syllabus

MODULE-I

Basic meteorology for Aviators; Meteorological weather stations; synoptic charts; Station models

MODULE-II

TAF, METAR; special weather reports; automatic terminal Information Service; Use of different type of weather websites and IMD website

MODULE-III

Poor visibility operation; Diversion due to bad weather; Meteorology briefing; Impact of Air Transport due to weather

Dangerous Goods

Code:

Credit: 6 (2+2+2)

Course Rationale: This course is intended to provide insights into the skills, manners and professionalism required to be a resourceful, effective and efficient in identification and management of dangerous goods.

Course Objective: To make students understand about

- the standards and requirements for crew professionalism
- the skills and competency required at different levels and roles

Course Outcome: After completion of this course students will be able to

- identify errors and corrective actions on time
- analyse the depth of knowledge requirement in every crew designation

Course Syllabus

MODULE-I

Introduction to Danger; Dangerous Goods manuals and reference booklets

MODULE-II

Regulatory framework; Extract of Rule 8 of Aircraft Rules 1937

MODULE-III

The aircraft and carriage of dangerous goods; Limitations; Dangerous articles; Items prohibited in aircraft cabin

MODULE-IV

Classification and Identification of Dangerous Goods

MODULE-V

Dangerous Goods in pax and crew baggage; Hidden and undeclared Dangerous Goods

MODULE-VI

Dangerous Goods marking and labelling; Handling of Dangerous Goods; Dangerous Goods Emergency response