ANNA UNIVERSITY, CHENNAI
UNIVERSITY DEPARTMENTS
MASTER OF BUSINESS ADMINISTRATION (FULL TIME)
REGULATIONS – 2023
CHOICE BASED CREDIT SYSTEM

VISION
To be an Iconic Management Institute in the development of competent and socially conscious management professionals.

MISSION
- To focus on developing holistic and specialized management graduates.
- To collaborate with all stakeholders in management education for mutually beneficial outcomes.
- To be a management institute with a societal perspective.

Program Educational Outcomes

PEO 1 – Employability: To develop students with industry specific knowledge & skills to meet the industry requirements and also join Public sector undertaking through competitive examinations.

PEO 2 - Entrepreneur: To create effective business service owners, with a growth mindset by enhancing their critical thinking, problem solving and decision-making skills.

PEO3 – Research and Development: To instill and grow a mindset that focusses efforts towards inculcating and encouraging the students in the domains of research and development.

PEO 4 – Contribution to Business World: To produce ethical and innovative business professionals to enhance growth of the business world.

PEO 5 – Contribution to the Society: To work and contribute towards holistic development of the society.

Program Outcomes:

PO1: Problem Solving Skill: Application of tools & techniques relevant to management theories and practices in analyzing & solving business issues.

PO2: Decision Making Skill: Application of analytical and critical thinking models for data-driven decision making.

PO3: Ethical Value: Nurture the development of ethical practices in business and work.

PO4: Communication Skill: Be trained in and to practice skills of listening, verbal and non-verbal communications for effective information and knowledge transfer.

PO5: Individual and Team Leadership Skill: Ability to be self-motivated in leading & driving a team towards achievement of organizational goals and contributing effectively to establish industrial harmony.
PO6: Employability Skill: Foster and enhance employability skills through relevant industry subject knowledge.

PO7: Entrepreneurial Skill: Equipped with skills and competencies to become a successful entrepreneur.

PO8: Contribution to Society: Strive towards building and delivering products and services with a social benefit perspective.

### PEO – PO MAPPING

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<th>PEO</th>
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1 – Low, 2 – Medium, 3 – High

### SI.No. | Course Name | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8
--- | --- | --- | --- | --- | --- | --- | --- | --- | ---
1 | Management Principles and Organizational Behavior | 0.4 | 2.4 | 1.4 | 2.2 | 2.6 | 3 | 2 | 1 |
2 | Quantitative Techniques | 3 | 3 | - | 1 | - | 2 | 1 | - |
3 | Marketing Management | 2.6 | 2.6 | 2 | 2.4 | 1.6 | 2 | 2.4 | 2.8 |
4 | Accounting for Managers | 2 | 2.5 | 1 | 1 | - | 2.8 | 2 | 0.7 |
5 | Managerial Economics | 3 | 2.6 | 2 | 2.4 | 1.4 | 2.2 | 2.2 | 2.6 |
6 | Legal Systems in Business | - | - | - | 0.4 | 0.4 | 1.6 | 1.2 | 0.4 |
7 | Information Systems for Business | 2.2 | 1.4 | 1.2 | - | 1.4 | 1 | 0.6 | 1.8 |
8 | Soft Skills I – Executive Communication | 2.8 | 1.8 | 2.2 | 2.6 | 2 | 1.4 | 1.4 | 2.2 |
9 | Applied Operations Research | 3 | 3 | - | 1 | 2.2 | 2.2 | 1.8 | 1.8 |
10 | Human Resource Management | - | - | - | 0.8 | 0.6 | 2.2 | 1.2 | - |
11 | Research Methods in Business | 3 | 2.6 | 2.4 | 1.4 | - | 2.2 | 1.2 | 1.2 |
12 | Operations Management | 2.8 | 3 | 0.6 | 1 | 1.6 | 3 | 2 | 1 |
13 | Financial Management | 1 | 1.5 | - | 1.4 | - | 1.4 | 2.4 | - |
14 | Entrepreneurship Development | - | - | - | 0.6 | - | 0.4 | 3 | 1.4 |
15 | Soft Skills II – Community Engagement | - | - | 2 | - | - | 1 | 1.4 | 3 |
16 | Soft Skills III – Computing Skills laboratory | 3 | 1 | 1.6 | 3 | 2 | 1 | 1 | 3 |
17 | Strategic Management | - | 0.4 | 1.6 | 1 | 1.2 | - | 0.6 | 2.2 |
18 | International Business | 1.6 | 2.2 | - | 2.6 | - | 2.6 | 2.6 | 1 |
19 | Soft Skills IV – Leadership and Team Building Skills | - | 0.6 | - | 3 | 2.4 | 3 | 3 | - |
20 | Corporate Governance | 3 | 2 | 2.2 | 2 | 2 | 2 | 1 | 1.4 |
21 | Micro and Small Business Management | 2.8 | 2.4 | 2 | 1.6 | 2.2 | 1.6 | 2.2 | 1.8 |
22 | Intellectual Property Rights | - | 1.4 | 1.8 | 1 | 1.4 | 3 | 2.4 | 1 |
23 | Sustainable Management | 3 | 2.8 | 1.8 | 3 | 2.2 | 2.4 | 1.4 | 2.8 |

**Employability Skills Electives**

24 | Security Analysis and Portfolio Management | 3 | 3 | 0.6 | 0.4 | 0.8 | 3 | 2.8 | 1 |
25 | Merchant Banking and Financial Services | - | 1.2 | - | 1.2 | - | 2 | - | - |
26 | Derivatives Management | 3 | 3 | - | 2 | - | 3 | 2 | 1 |
27 | Financial Modelling | 3 | 3 | - | - | - | 2 | 2 | - |
28 | Applications of AI and ML in Finance | 2 | 2 | - | - | 2 | 2.8 | 2.8 | 1 |
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## ANNA UNIVERSITY, CHENNAI
### UNIVERSITY DEPARTMENTS
### REGULATIONS – 2023
### CHOICE BASED CREDIT SYSTEM
### MASTER OF BUSINESS ADMINISTRATION (FULL – TIME)
### CURRICULA AND SYLLABI FOR I TO IV SEMESTERS
### SEMESTER - I

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**Students should choose six PEC Course from the specialization list in consultation with the Head of the Institution.**

For the categorization of specialization students must opt for dual specialization. They should choose 3 PEC papers from respective areas of specialization.

***Internship will be carried out during the summer vacation after the first year. Viva Voce will be conducted by the college and marks shall be sent to the University and the same will be included in the Third Semester Marks Statement.***

### SEMESTER - IV

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L-Lecture T-Tutorial P- Practical O-Project

TOTAL NO. OF CREDITS: 102 credits
# Choice Based Credit System

## Course Syllabus for Semester I

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## Course Syllabus for Semester II

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# Community Engagement for PT to be scheduled every Saturday
SEMESTER - III

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@: Students need to choose one elective from the Employability Skills electives list
Summer internship – minimum of 4 weeks of internship
Summer Internship report & Training diary has to be submitted
# SEMESTER – V

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**NOTE:** * Students must choose three electives from 2 functional streams for Dual Specialization

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**TOTAL NO. OF CREDITS:** 102

**Employability Skills Electives®**

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@ : Students can choose one course from the above list of employability skills electives

**Specialization Courses: Finance Management**

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6. BA3009 Fintech and Block chain applications in Finance PEC 3 0 0 3 3
7. BA3010 International Financial Management PEC 3 0 0 3 3
8. BA3011 Capital and Financial Markets PEC 3 0 0 3 3

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Summary Credit Distribution for Various Category of Course by Semester Wise

**MBA – GM – Full Time**

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**Summary Credit Distribution for Various Category of Course by Semester Wise**

**MBA – GM – Part Time**

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OBJECTIVES:
- To acquaint the students with the fundamentals of managing business and to understand individual and group behaviour at work place so as to improve the effectiveness of an organization.

UNIT I     NATURE AND THEORIES OF MANAGEMENT     12

UNIT II     PLANNING, ORGANISING AND CONTROL     12

UNIT III     INDIVIDUAL BEHAVIOUR     12

UNIT III     GROUP BEHAVIOUR     12

UNIT IV     LEADERSHIP     12

TOTAL: 60 PERIODS
OUTCOMES:
On completion of this course, the students will be able to

**CO1.** Understand, apply and assess the various management concepts and develop the
skills required in the business world

**CO2.** Understand, apply and adapt the processes of decision making, planning, organizing and controlling to their organization

**CO3.** Understand, identify and interpret individual behavior in organization

**CO4.** Understand, identify and interpret group behavior in organization and develop
effective groups and teams

**CO5.** Understand and apply the leadership theories and demonstrate effective leadership.

**CO PO MAPPING**

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**READING LIST**
1. Journal of Organizational Behaviour – Wiley Online Library
2. Research in Organizational Behaviour – Science Direct

**REFERENCES:**
4. Prasad L.M., Organisational Behaviour , Sultan Chand and Sons, 2019

**BA3102 QUANTITATIVE TECHNIQUES**

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**COURSE OBJECTIVE**
The students could apply statistical techniques to data sets, and correctly interpret the
results in business and social setting.

**UNIT I INTRODUCTION**

Basic definitions and rules for probability, conditional probability independence of events, Bayes’ theorem, and random variables, Probability distributions: Binomial, Poisson, Uniform and Normal distributions.

**UNIT II SAMPLING DISTRIBUTION AND ESTIMATION**

Introduction to sampling distributions, sampling distribution of mean and proportion, application of central limit theorem, sampling techniques. Estimation: Point and Interval estimates for population mean and proportion of large sample and small samples, independent and dependent samples - Point and Interval estimates for difference in two population means for large samples and small samples : assuming population standard deviation to be equal and unequal - determining the sample size.
UNIT III  TESTING OF HYPOTHESIS - PARAMETRIC TESTS  12
Hypothesis testing: one sample and two sample tests for means and proportions of large samples (z-test), one sample and two sample tests for means of small samples (t-test), difference in two population means for large samples (z test) and small samples :assuming population standard deviation to be equal and unequal (t test) – Paired t test – F-test for two sample standard deviations. ANOVA- one and two way.

UNIT IV  NON-PARAMETRIC TESTS  12

UNIT V  CORRELATION AND REGRESSION  12

TOTAL: 60 PERIODS

OUTCOMES:
CO1: To understand, develop and apply the problem solving techniques to calculate probabilities.
CO2: To understand and apply estimation procedures on various scenarios.
CO3: To formulate, analyze and test hypotheses on various scenarios.
CO4: To apply non parametric tests for hypotheses testing.
CO5: To evaluate the relationship between variables.

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REFERENCES:
COURSE OBJECTIVE

- To give insight into Marketing Strategies, Mix and buying behaviour of consumer and industry.

UNIT I INTRODUCTION 12
Marketing Management Philosophies – What is marketing - The concepts of marketing-

UNIT II STRATEGIC MARKETING 12

UNIT III MIS 12

UNIT IV BUYER BEHAVIOUR 12

UNIT V PRODUCT POLICIES 12

TOTAL: 60 PERIODS

COURSE OUTCOMES

CO1: On completion of this course, students will:

CO2: Learn the fundamental principles of marketing, marketing concepts and ideas.

CO3: Teach the buyer behavior and market segmentation and competitive marketing strategies.

CO4: Analyse strategically about branding, pricing and marketing issues.

CO5: Evaluate with Promotion decisions along with awareness on Consumer Rights in the Market Place.
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Reading List
2. https://cpbucket.fiu.edu/mar3023vd1131/syllabus.htm
3. https://www.ama.org/ama-academic-journals/

References Books

BA3104 ACCOUNTING FOR MANAGERS

OBJECTIVE:
- Acquire a reasonable knowledge in accounts analysis and evaluate financial statements

UNIT I FINANCIAL ACCOUNTING


UNIT II FINANCIAL STATEMENTS ANALYSIS


UNIT III MARGINAL COSTING

Marginal Costing – definition - Profit Planning – Cost, Volume, Profit Analysis – Break Even Analysis – Contribution, P/V Ratio, Margin of Safety - Decision-making problems –Key Factor Analysis - Make or Buy decisions - Determination of sales mix - Exploring new markets - Add or drop products - Expand or contract – Export decision.
UNIT IV BUDGETARY CONTROL AND VARIANCE ANALYSIS


UNIT V COST ACCOUNTING


TOTAL: 60 PERIODS

COURSE OUTCOMES:

CO1: Understand the fundamentals of financial, cost and management accounting.

CO2: Understand and construct financial statements.

CO3: Analyse financial statements using tools and techniques.

CO4: Apply the Marginal costing techniques for techniques for decision making.

CO5: Apply budgetary control and Variance analysis and prepare reports to facilitate managerial decisions.

CO6: Apply cost accounting techniques and understand the accounting disclosure practices in India.

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READING LIST


REFERENCES:


BA3151 MANAGERIAL ECONOMICS L T P C
4 0 0 4

COURSE OBJECTIVE
• To make the Students learn about microeconomic and Macroeconomic implications in Business Decision.

UNIT I INTRODUCTION 12

UNIT II UTILITY ANALYSIS AND THE DEMAND CURVE 12

UNIT III THE PRODUCTION FUNCTION 12

UNIT IV MACRO ECONOMIC VARIABLES 12

UNIT V COMMODITY AND MONEY MARKET 12

TOTAL: 60 PERIODS

COURSE OUTCOMES:
CO1: Be able to learn the basic concepts of managerial economics that helps the firm in decision making process.
CO2: Be able to understand about the Basic concepts of Demand, Supply and Equilibrium and their determinants
CO3: Discover production function and market structure
CO4: Illustrate macroeconomics concepts like National income, Savings and Investment, Indian Economic Policy and planning
CO5: Possess better knowledge about Money market, Monetary and Fiscal policy, inflation and deflation, FDI and globalization and Cashless economy and digitalized cash transfers.
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Reading List

4. The Indian Economic Journal - SAGE Journals

References Books


BA3105 LEGAL SYSTEMS IN BUSINESS

COURSE OBJECTIVES

- To create knowledge and understanding on law of contracts
- To describe about sale of goods and Negotiable instrument act
- To have an overall understanding about partnership act and company law.
- To familiarize various labor laws for effective administration of Human Resource of an organization.
- To provide insights and awareness about consumer protection act, Cyber-crimes, Intellectual property Rights.

UNIT I THE LAW OF CONTRACTS

UNIT II
SALE OF GOODS ACT

Negotiable Instruments Act: Negotiable Instruments in General: Cheques, Bills of Exchange and Promissory Notes—Definition and Characteristics

UNIT III
PARTNERSHIP ACT


UNIT IV
Labour Law

UNIT V
CONSUMER PROTECTION ACT

TOTAL: 60 PERIODS

COURSE OUTCOMES
CO1: Have knowledge on understandings on law of contract.
CO2: Know the sale of Goods & Negotiable instrument act.
CO3: Have understandings on partnership and company law
CO4: Have familiarize with various labour laws.

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4. https://ijl.law.indiana.edu/

REFERENCES

BA3106 INFORMATION SYSTEMS FOR BUSINESS L T P C
4 0 0 4

UNIT I INTRODUCTION 12
Introduction to information system-The management,structure and activities-Information needs and sources-Types of management decisions and information need.System classification Elements of system, input,output, process and feedback.

UNIT II TRANSACTION PROCESSING INFORMATION SYSTEM 12
Office Automation System (OAS) - Knowledge workers System(KWS); MIS; Information system for managers, Intelligence information system –Decision support system-Executive information systems.

UNIT III FUNCTIONAL MANAGEMENT INFORMATION SYSTEM 12
Production / Operations Information system, Marketing Information Systems, Accounting Information system, Financial Information system, Human resource Information system.

UNIT IV SYSTEM ANALYSIS AND DESIGN 12
The work of a system analyst- SDLC-System design – AGILE Model – Waterfall Model – Spiral Model – Iterative and Incremental Model - RAD Model - Requirement analysis-Data flow diagram, relationship diagram, design- Implementation-Evaluation and maintenance of MIS, Database System: Overview of Database- Components-advantages and disadvantages of database; Data Warehousing and Data Mining; Business Intelligence; Artificial Intelligence; Expert System; Big Data; Cyber Safety and Security- Cryptography; RSA Model of Encryption; Data Science - Block Chain Technology; E-commerce and E-Business models; IOT - RFID.

UNIT V ENTERPRISE RESOURCE PLANNING (ERP) 12
System,Benefits of the ERP,ERP how different from conventional packages , Need for ERP , ERP components , Selection of ERP Package, ERP implementation, Customer Relationship management. Organisation & Types, Decision Making, Data & information, Characteristics & Classification of information, Cost & value of information, various channels of information and MIS; Information system audit and control – E-Governance.

TOTAL: 60 PERIODS
COURSE OUTCOMES
On completion of this course, students will;
CO1: Learn the importance of data and information in managerial decision making.
CO2: Possess on the various IS and the its relevance to Organizational environment.
CO3: Understand the application of IS on the various functions like Accounting, Finance, Marketing, Operations and HR.
CO4: To study the various models and new technologies.
CO5: Be exposed on the importance of selecting the appropriate ERP and its implementation.

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Reading List
1. Information Systems for Business and Beyond – open textbooks. site.
3. Information systems Journal – Wiley Online Library.

References Books

BA3161 SOFT SKILLS I – EXECUTIVE COMMUNICATION

OBJECTIVES:
• To help the students to acquire some of the necessary skills to handle day-to-day managerial responsibilities, such as - making speeches, controlling one-to-one communication, enriching group activities and processes, giving effective presentations, writing letters, memos, minutes, reports and advertising, and maintaining one’s poise in private and in public.

UNIT I INTRODUCTION AND TYPES OF BUSINESS COMMUNICATION
Introduction to Business Communication: Principles of effective communication, Target group profile, Barriers of Communication, Reading Skills, Listening, Feedback. - Principles of Nonverbal Communication: Professional dressing and body language. Role Playing, Debates and Quiz. - Group communication: Meetings, group discussions. - Other Aspects of Communication: Cross Cultural Dimensions of Business Communication Technology and Communication,
UNIT II   BUSINESS COMMUNICATION WRITING MODELS AND TOOLS
Business letters, Routine letters, Bad news and persuasion letters, sales letters, collection letters, Resume/CV, job application letters, proposals. Internal communication through Email - notices, circulars, memos, agenda and minutes, Exercises on Corporate Writing, Executive Summary of Documents, Creative Writing, Poster Making, Framing Advertisements, Slogans, Captions.

UNIT III   EFFECTIVE PRESENTATIONS
Principles of Effective Presentations, Principles governing the use of audiovisual media. Types of managerial speeches - Presentations and Extempore - speech of introduction, speech of thanks, occasional speech, theme speech.

UNIT IV   INTERVIEW SKILLS
Mastering the art of giving interviews in - selection or placement interviews, discipline interviews, appraisal interviews, exit interviews, web /video conferencing, tele-meeting.

UNIT V   REPORT WRITING

Note: The emphasis of the entire subject should be on practical aspects.

Practical: Module 1-This module introduces both written and spoken communication skills to students to build their confidence in delivering clear and logical messages to their audience. They will develop written communication skills through crafting business messages such as business letters, emails, and meeting minutes. In addition, students will work through presentations and simulated meetings to refine their spoken communication skills, discussion techniques and people skills.

Practical - Module 2-This module builds on the foundation of Business Communication 1 and creates opportunities for students to strengthen their oral and written communication. Students will be required to enhance their presentation skills through impromptu speeches. Students will also learn how to prepare a formal business report. Job hunting and employment skills will be introduced to prepare students for a positive start to their careers. Students will be taught to write application letters and resumes. Additionally, students will learn job interview techniques through role-plays and simulations.

Practical - Module 3-This practical module aims to help students be persuasive in the business world. Students will learn listening and data gathering skills to better understand their target audience’s needs and requirements and persuasive skills to convince the audience to accept a new policy/suggestion/product through role-playing a boardroom presentation. Students will also be taught business networking skills including conversation techniques, dining etiquette and personal branding through role-plays and simulations.

TOTAL : 60 PERIODS

OUTCOMES :
CO1: Develop good managerial communication skills
CO2: Ability to excel in different forms of written communication required in a business context
CO3: Develop good presentation skills
CO4: In-depth understanding of interview skills
CO5: Ability to prepare Business reports
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Reading List:
1. www.businesscommunicationskills.com
2. www.kcittraining.com
3. www.mindtools.com
4. www.businesscommunication.org

REFERENCES:
5. C. S. Rayadu, Communication by, HPH, 2015

BA3201 APPLIED OPERATIONS RESEARCH

L T P C
3 1 0 4

COURSE OBJECTIVE:
- Understand, Formulate and Apply decision making models under conditions of certainty, risk and uncertainty.

UNIT I LINEAR PROGRAMMING

Introduction to Operations research: Models and applications in functional areas of management. Linear Programming: Formulation, Maximization & Minimization Cases, Graphical and Simplex (Primal, Penalty and Dual Simplex methods. Applications of Sensitivity Analysis

UNIT II TRANSPORTATION AND ASSIGNMENT MODELS

UNIT III  
GAME THEORY AND INTEGER PROGRAMMING  
Game Theory-Two-person Zero sum games-Saddle point, Dominance Rule, Convex Linear Combination (Averages), methods of matrices, graphical and LP solutions. 
Integer programming: Branch & Bound and Gomory’s cutting plane algorithms for 2 variables and 2 and more variable cases

UNIT IV  
REPLACEMENT & NETWORKING MODELS  

UNIT V  
INVENTORY, SIMULATION & JOB SEQUENCING MODELS  
Deterministic Inventory Models – EOQ and EBQ Models (With and without shortages), Quantity Discount Models. Monte Carlo Simulation application in decisions.
Job Sequencing algorithm (Johnson’) - n jobs thro’ 2 machines, n jobs thro’ 3 machines and n jobs thro’ m machines.

TOTAL : 60 PERIODS

COURSE OUTCOMES:
CO1: Formulate, relate and apply the linear programming techniques to decision making.
CO2: Solve, appraise and demonstrate an understanding of adopting transportation and assignment models for optimization.
CO3: Compare, evaluate and choose the appropriate decision strategies using game theory and using integer programming models
CO4: Recall, relate, analyse and predict the replacement period of large and small items and adapt PERT and CPM techniques in forecasting project durations and resources.
CO5: Demonstrate an understanding to solve and estimate the optimum inventory parameters, the Job Sequencing process and apply simulation to decision making

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Supplementary Reading List
2.  https://www.journals.elsevier.com/operations-research-perspectives" \t ".blank

REFERENCES:
toManagementScience:QuantitativeApproachtoDecisionMaking,14thEdition 
S.Chand, 2014.
OBJECTIVES:

- To provide knowledge about management issues related to staffing, training, performance, compensation, human factors consideration and compliance with human resource requirements.

UNIT I  INTRODUCTION  12

UNIT II  HUMAN RESOURCE PLANNING (HRP)  12

UNIT III  TRAINING, DEVELOPMENT & CAREER MANAGEMENT  12
Importance and benefits of Training and Development, Types of Training Methods, Executive Development Programs, Concept and process of Career Management; Competency mapping, Knowledge Management & Talent Management.

UNIT IV  PERFORMANCE MANAGEMENT  12
Importance, process and Methods: Ranking, rating scales, critical incident method, Removing subjectivity from evaluation, MBO as a method of appraisal, Performance Feedback, Online PMS. Human Resource Information System; International Human Resource Management; Cross cultural diversity management; Hybrid work culture; work-life balance; Quality of work-life; HR Analytics.

UNIT V  COMPENSATION MANAGEMENT  12
Wage and Salary Administration: Job Evaluation, Calculation of Wage, Salary, Prerequisites, Compensation Packages, Cost of Living Index and Calculation of Dearness Allowance, Rewards and Incentives; ESOP-Financial and non-financial incentives, Productivity linked Bonus, Compensation Criteria, Rewards and Recognition

TOTAL: 60 PERIODS

COURSE OUTCOMES
On completion of this course, students will;
CO1: Gain an understanding of HRM policies and importance.
CO2: Implement appropriate HRP in workplace.
CO3: Apply feasible Training method and manage career progressions.
CO4: Demonstrate managing performance of human resources.
CO5: Design and justify compensation framework.

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READING LIST
2. https://www.hr-guide.com/data/G400.htm
4. https://www.tandfonline.com/toc/rijh20/current"

REFERENCES

BA3203 RESEARCH METHODS IN BUSINESS L T P C
4 0 0 4

COURSE OBJECTIVE
- Students could undertake a systematic outlook towards business and social problems for the purpose of objective decision making, and to solve it.

UNIT I INTRODUCTION

UNIT II RESEARCH DESIGN AND DATA COLLECTION
Research design – Definition – types of research design, Types of data – Primary Vs Secondary data – Methods of primary data collection – Survey, Observation, Interview – Construction of questionnaire / instrument – Validity and reliability testing - Sampling plan – Sample size – determinants of optimal sample size – sampling techniques – Sampling methods.

UNIT III EXPERIMENTS

UNIT IV DATA PREPARATION AND ANALYSIS
Data Preparation – editing – Coding – Data entry – Validity of data – Qualitative Vs Quantitative data analyses – Applications of Bivariate and Multivariate statistical techniques, Factor analysis, Discriminant analysis, Cluster analysis, Multiple regression and Correlation, Multidimensional scaling – Conjoint Analysis – Application of statistical software for data analysis.
UNIT V  REPORT DESIGN, WRITING AND ETHICS IN BUSINESS RESEARCH  12

TOTAL: 60 PERIODS

OUTCOMES :
CO1 Students understand and appreciate scientific inquiry, formulate a research Problem and write research proposals.
CO2 The students would be able to design a research and devise measurement tools and select research participants.
CO3 Students understand and design an experimental study.
CO4 Students would analyze data and find solutions to the problems.
CO5 Students would develop knowledge on ethics in research and would write Research reports.

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REFERENCES :

BA3251 OPERATIONS MANAGEMENT

OBJECTIVE:
- To provide an introduction to the field of operations management and explain the concepts, strategies, tools, and techniques for managing the transformation process that can lead to competitive advantage.

UNIT I INTRODUCTION
UNIT II  FACILITY DESIGN

UNIT III  DESIGN OF WORK SYSTEMS

UNIT IV  PLANNING AND INVENTORY CONTROL

UNIT V  QUALITY MANAGEMENT
Definitions of quality-The Quality revolution-Quality gurus; TQM philosophies - Quality Management tools, certification and awards- Quality Control: Acceptance Sampling- The Operating Characteristic Curve- Control Charts for Variables and Attributes; Quality Circles Lean Management – philosophy- continuous improvement -Six sigma

TOTAL: 60 PERIODS

OUTCOMES:
CO1: Understand the concepts of production and its design, capacity planning and make or buy decisions and apply and adapt the concepts in managing operations.
CO2: Understand and apply location models to complex plant location decisions and choose among the different types of layout by applying layout planning tools.
CO3: Understand the different approaches, analyze, design and develop the work system.
CO4: Understand, apply and evaluate the various inventory models and choose the best inventory control policy.
CO5: Understand the quality management principles, apply the quality tools and develop a quality management system.

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READING LIST:
2. Journal of Operations Management – Wiley Online Library

REFERENCES:

BA3204 FINANCIAL MANAGEMENT

OBJECTIVES:
Facilitate student
- Understand the operational nuances of a Finance Manager.
- Comprehend the technique of making decisions related to finance functions.

UNIT I INTRODUCTION TO FINANCIAL MANAGEMENT

UNIT II INVESTMENT DECISIONS

UNIT III FINANCING DECISION I

UNIT IV FINANCING DECISION II AND DIVIDEND DECISION

UNIT V WORKING CAPITAL MANAGEMENT

TOTAL: 60 PERIODS

COURSE OUTCOMES:
CO1: Understand the concepts of financial management and recognize the time value of money and long-term sources of finance
CO2: Apply the capital budgeting techniques for investment decision-making
CO3: Apply the techniques of calculating specific and weighted average cost of capital and leverage analysis
CO4: Understand the decision of capital structure and distribution of dividend
CO5: Understand the concept of Working Capital and estimate working capital for the future.
CO6: Analyse the financial information and take the important financial decisions

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**READING LIST:**
1. [https://accountingexplained.com/managerial/capital-budgeting/](https://accountingexplained.com/managerial/capital-budgeting/)
4. The Management Accountant Journal - icmai-rnj.in

**REFERENCES:**
1. I M. Pandey Financial Management, Pearson, 12th edition, 2021

**BA3205** **ENTREPRENEURSHIP DEVELOPMENT**

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**OBJECTIVES:**
- To equip and develop the learners entrepreneurial skills and qualities essential to undertake business.

**UNIT I** **INTRODUCTION**
The Entrepreneur – Definition – Characteristics of Successful entrepreneur. Entrepreneurial scene in India; MSME; Analysis of entrepreneurial growth in different communities – Case histories of successful entrepreneurs. Similarities and Distinguish between Entrepreneur and Intrapreneur.

**UNIT II** **INNOVATION IN BUSINESS**

**UNIT III** **NEW VENTURE CREATION**
UNIT IV BUSINESS PLAN PREPARATION

UNIT V FINANCING THE NEW VENTURE

TOTAL: 45 PERIODS

COURSE OUTCOMES
On completion of this course, students will;
CO1: Be able to know about growth of entrepreneurship in India.
CO2: Gain knowledge on innovation, its types, role of technology in innovation, patents and licensing.
CO3: Obtain knowledge on new venture creation.
CO4: Be able to prepare a business plan.
CO5: Gain knowledge on various types of financing available for new ventures.

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READING LIST
4. The International Journal of Entrepreneurship and Innovation

REFERENCES BOOKS
OBJECTIVES:
- To develop an appreciation of culture, life-style and wisdom among students, and to apply classroom knowledge of courses to field realities and thereby improve learning

COURSE CONTENT:
1. Dynamics of society: Social, economic, political and cultural; Identifying groups in the community like women, children, elderly and disabled 6
2. Community goal setting: Inner Engineering 6
3. Participatory learning and social mapping: Approaches and methods, community mapping, project proposal and project management, concept and steps, Thematic maps 12
4. National development programs: History, status and way forward 6
5. Resource Mapping: Natural and Human resource mapping and management 6
6. Institutions: Engagement with school/ street/ Health center/ Panchayat/ SHGs 6
7. Community Awareness: Health & Hygiene/ Rights/ Policies and Programmes 6
8. Disaster Management: Disaster Preparedness - Risk reduction, Rehabilitation- Physical and psychological aspects 6
9. Professional Intervention: Partnership with Public, Private and Non-governmental organizations 6

TOTAL: 60 PERIODS

COURSE OUTCOMES:

CO1: Familiarise the students with the concept of community and social realities
CO2: In depth knowledge on institutions operating in the community
CO3: Ability to devise plans for disaster response and management
CO4: In depth knowledge of health and hygiene, rights and policies and programs in community
CO5: Identify the opportunities for contributing to community’s socio-economic improvements

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REFERENCES:
COURSE OBJECTIVE

- The objective of the course is to equip students with essential computing skills using spreadsheets and analytical tools, enabling them to effectively analyze data, make informed decisions, and solve business problems.

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Course Outcomes:

**CO1**: Apply fundamental spreadsheet functions and formulas to structure and manipulate data effectively.

**CO2**: Utilize descriptive statistics and various chart types to visualize and communicate data insights.

**CO3**: Understand and apply hypothesis testing and regression techniques for data analysis and decision-making.

**CO4**: Utilize analytical tools such as Goal Seek, Scenario Analysis, and Pivot Tables for problem-solving and decision support.

**CO5**: Apply forecasting techniques, including factor forecasting and time series forecasting, to predict future trends and make informed decisions.

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### REFERENCES


### BA3301 STRATEGIC MANAGEMENT

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### COURSE OBJECTIVES

1. To enable the students understand the importance of vision and mission in framing corporate strategy.
2. To provide insights on how business is responsible socially and ethically.
3. To highlight on the environmental analysis framework.
4. To throw light on strategic formulation and strategic choice.
5. To understand strategic implementation and strategic control.
UNIT I  INTRODUCTION  12

UNIT II  CORPORATE POLICY AND PLANNING IN INDIA  12

UNIT III  ENVIRONMENTAL ANALYSIS  12

UNIT IV  STRATEGY FORMULATION AND ANALYSIS  12

UNIT V  STRATEGY IMPLEMENTATION  12

TOTAL: 60 PERIODS

COURSE OUTCOMES
CO1: Be able to frame vision and mission statements.
CO2: Be social and ethically responsible.
CO3: Possess insights on making environmental analysis.
CO4: Possess knowledge on learning strategic formulation & strategy choice.
CO4: Understanding strategic implementation and control.

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READING LIST
1. Strategic Management Journal – Wiley online Library
2. Journal of strategy and Management – Emerald Insight

REFERENCES
5. Pearce II, J., Robinson, R.B. and Mittal, A., Strategic Management: Formulation,
6. Wheelen, T.L. and Hunger, D., Strategic Management and Business Policy, 13th

UNIT I INTRODUCTION
Introduction to International Business: Importance, nature and scope of International
business—International Business Vs. Domestic Business; Tariff and non-tariff barriers-
transition from Domestic to International Business; Advantages and disadvantages of
International business; Balance of Payments; Balance of Trade; Balance of Current Account.
Modes of entry into International Business—Internationalization process and managerial
implications—Multinational Corporations and their involvement in International Business—
Issues in foreign investments, technology transfer, pricing and regulations, global supply chain
risks—International collaborative arrangements and strategic alliances—Counter Trade;
Import-Export Process and Documentation.

UNIT II INTERNATIONAL BUSINESS ENVIRONMENT AND CULTURAL DIFFERENCES
International Business Environment: Economic, Political, Cultural and Legal environments in
Differences in Culture: Introduction—Social Structure—Religion—Language—Education—
Culture and the Workplace—Cultural Change—Cross-cultural Literacy—Culture and
Competitive Advantage—Managing globally distributed teams.

UNIT III INTERNATIONAL TRADE THEORY
Introduction—Mercantilism, Neo-Mercantilism—Theory of Absolute Advantage—Theory
of Comparative Advantage—Heckscher-Ohlin Theory—The New Trade Theory—National
Competitive Advantage—Porter's Diamond—General Agreement on Tariff and Trade
(GATT)-World Trade Organization (WTO)-GATS-UNCTAD-Trade Blocks; Customs Union-
EU-PTA-European Free Trade Area (EFTA)-Central American Common Market (CACM)-
Latin American Free Trade Association (LAFTA)-North American Free Trade Agreement
(NAFTA)-Association of South East Asian Nations (ASEAN)-CARICOM-GSTP-
GSP-SAPTA-Indian Ocean Rim Initiative- BIMSTEC- Bretton Woods Twins- World Bank &

UNIT IV GLOBAL TRADING AND INVESTMENT ENVIRONMENT
Recent Trends in India's Foreign Trade- India's Commercial Relations and Trade Agreements
with other countries—India's foreign policy—Institutional Infrastructure for export promotion in
India—Export Assistance—Export Finance—Export Processing Zones (EPZs) - Special
Economic Zones (SEZs)-Exports by Air, Post and Sea- Small Scale Industries (SSI) and
Exports-Role of ECGC-Role of EXIM Bank of India-Role of Commodity Boards-Role of State
Trading Agencies in Foreign Trade- STC, MMTC, etc.
Foreign Exchange Market-Functions of Foreign Exchange Market—Foreign Direct
Investments (FDI); forms of FDI—Horizontal and Vertical Foreign Direct Investment—
Advantages of FDI to Host and Home Countries.
UNIT V  CONTEMPORARY ISSUES 9

TOTAL: 45 PERIODS

COURSE OUTCOMES
On completion of this course, students will;
CO1: Understand implications of factors at the international level on business and evaluate international collaborative arrangements and strategic alliances.
CO2: Understand political, legal, economic and cultural country differences and develop competitive strategies in foreign, regional and global markets.
CO3: Apply the various international trade theories in the management of business functional operations in an international context.
CO4: Evaluate barriers, opportunities, market entry modes and the process of internationalization.
CO5: Understand the regional economic integration and contemporary issues in international business.

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READING LIST
1. http://www.internationalbusinesscorporation.com
3. https://www.jstor.org/journal/jintebusistud" \t " _blank
4. Journal of International Business and Management (JIBM)

REFERENCES BOOKS
OBJECTIVES:
- To learn more about self-leadership and developing team-building skills through case studies and examples.

UNIT I LEADERSHIP THEORIES
Nature of leadership theories & models of leadership - attributes of effective leaders - traits of leadership - interpersonal competence & leadership.

UNIT II LEADERSHIP STYLES
Leadership qualities - styles of leadership - attitudes - role models & new leadership patterns - cultural differences and diversity in leadership - leader behaviour - leadership in different countries - ethical leadership - social responsibility of leaders.

UNIT III LEADERSHIP SKILLS
Leadership skills - Leadership & management - transactional & transformational leadership - Strength based leadership in practice - Tasks & Relationship approach in leadership – influential tactics of leaders - motivation and coaching skills. Establishing constructive climate - listening to out group members - communication and conflict resolution skills.

UNIT IV TEAM WORK
Working in group & teams - characteristics of effective teams - types - team development: Tuckman's team development stages - Belbin team roles - Ginnett team effectiveness leadership model.

UNIT V EXPLORING TEAM ROLES AND PROCESSES
Mapping the stages of group development - Building: and developing teams - overcoming resistance coping - conflict and Ego - leading a team by managing meetings.

TOTAL: 60 PERIODS

COURSE OUTCOMES:

CO1: Critical understanding of theories and concepts of leadership and teamwork in Organizations.

CO2: Critical awareness of the importance of teamwork and development of the skills for building effective teams.

CO3: Understanding of the techniques and practical understanding of how to apply theories and concepts to improve leadership skills.

CO4: Development of skills in effective leadership and professional communication.

CO5: Demonstrate effective written communication skills for plans, strategies and outcomes.

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READING LIST
2. International Journal on Leadership, Publishing India Group
3. International Journal of Organizational Leadership, CIKD
REFERENCES:

BA3001 CORPORATE GOVERNANCE L T P C
3 0 0 3

OBJECTIVE:
- The course will help to relate the corporate government practices of an organization to its performance, and to develop the technical skills required to evaluate the governance of a company from the perspective of an investor (individual or organizational capacity).

UNIT I FUNDAMENTAL OF CORPORATE AND GOVERNANCE
Understanding Corporate Governance: Corporate governance – an overview, History of corporate governance-Concept of corporations -Concept of extended view of corporate citizenship, Owners and stakeholders, Types of owners, Rights and privileges of shareholders (Fernando, 4), Ownership structures and corporate governance- Pyramids and Tunneling: Issues of corporate control and cash flow rights- Examples from restructure proposals of Vedanta group -Need for investor protection.

UNIT II THEORIES AND PRACTICE OF CORPORATE GOVERNANCE

UNIT III ADMINISTRATIVE AND AUDIT MECHANISM
Board Committees and Chairman - Separation OF CEO & Board Chairman post - Nomination Committee - Board Selection - Boards Performance Evaluation- Executive Compensation - Role of Remuneration Committee - Human Side of Governance- Financial Oversight and Audit Mechanisms - Audit Committee - Disclosure mechanisms - Role of SEBI.

UNIT IV GOVERNANCE METHODS AND RATING
Governance and Risk Management • Risk Management Committee - Corporate Misconduct & Misgovernance- Reasons for Corporate Misconduct - Whistle Blower’s Protection - Factors Responsible for Obstructing Effective Corporate Governance Practices- Corporate Governance Rating • Standard & Poor’s Corporate Governance Scores • Corporate Governance Rating Methodology (Crisil).

UNIT V GOVERNANCE ISSUES AND PRACTICES
Governance of Financial Organizations & PSU’s- Organizational patterns of PSU’s - Powers of PSU Boards - Governance issues in Entrepreneurial Firms - Unique issues among entrepreneurial forms- Choosing Board of Directors and Venture capitalists - Role of venture capitalists and buyouts- Corporate Governance in Practice - Governance issues in MNC’s & Joint Ventures.

TOTAL: 45 PERIODS
OUTCOMES:
CO1: Demonstrate a solid understating of the purpose and nature of corporations.
CO2: Evaluate different stakeholder’s roles and significance in relations to corporate
governance.
CO3: Explain the importance of regulation, markets and information in corporate governance.
CO4: Understand corporate governance methods and practices.
CO5: Critically assess governance concerns for individual corporation and their stakeholders

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2. Cadbury, Adrian, Corporate Governance and Chairmanship: a personal view, Oxford University Press, 2003

BA3002 MICRO SMALL AND MEDIUM ENTERPRISES L T P C 3 0 0 3

OBJECTIVES:
- To familiarize students with the theory and practice of small business management.
- To learn the legal issues faced by small business and how they impact operations.

UNIT I INTRODUCTION TO SMALL BUSINESS 9

UNIT II SCREENING THE BUSINESS OPPORTUNITY AND FORMULATING THE BUSINESS PLAN 9
Concepts of opportunity recognition; Key factors leading to new venture failure; New venture screening process; Applying new venture screening process to the early stage small firm Role planning in small business – importance of strategy formulation – management skills for small business creation and development.
UNIT III   BUILDING THE RIGHT TEAM AND MARKETING STRATEGY  9
Management and Leadership – employee assessments – Tuckman’s stages of group
development - The entrepreneurial process model - Delegation and team building -
Comparison of HR management in small and large firms - Importance of coaching and how to
apply a coaching model. Marketing within the small business - success strategies for small
business marketing - customer delight and business generating systems, - market research, -
assessing market performance-sales management and strategy - the marketing mix and
marketing strategy.

UNIT IV   FINANCING SMALL BUSINESS  9
Main sources of entrepreneurial capital; Nature of ‘bootstrap’ financing - Difference between
cash and profit - Nature of bank financing and equity financing - Funding-equity gap for small
firms. Importance of working capital cycle - Calculation of break-even point - Power of gross
profit margin- Pricing for profit - Credit policy issues and relating these to cash flow
management and profitability.

UNIT V   VALUING SMALL BUSINESS AND CRISIS MANAGEMENT  9
Causes of small business failure - Danger signals of impending trouble - Characteristics of
poorly performing firms - Turnaround strategies, Concept of business valuation - Different
valuation measurements - Nature of goodwill and how to measure it - Advantages and
disadvantages of buying an established small firm - Process of preparing a business for sale.

TOTAL: 45 PERIODS

COURSE OUTCOMES:
CO1: Familiarise the students with the concept of small business
CO2: In depth knowledge on small business opportunities and challenges
CO3: Ability to devise plans for small business by building the right skills and marketing
strategies
CO4: Identify the funding source for small start ups
CO5: Business evaluation for buying and selling of small firms

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3) Raju, The Story of Indian MSMEs, 2019, Konark Publishers.
4) Hankinson, A.(2000). "The key factors in the profile of small firm owner-managers that
OBJECTIVE:
- To understand intellectual property rights and its valuation.

UNIT I  INTRODUCTION

UNIT II  PATENTS, COPYRIGHTS AND TRADEMARKS

UNIT III  INDUSTRIAL DESIGNS, GEOGRAPHICAL INDICATIONS AND TRADE SECRETS

UNIT IV  STATUTES AND TREATIES

UNIT V  STRATEGIES IN INTELLECTUAL PROPERTY MODELS

TOTAL: 45 PERIODS

OUTCOMES:
On completion of this Course, the students will be able to
CO1: Define, categorize and decide on how to protect intellectual property
CO2: Understand and apply for patents, copyrights and trademarks and devise methods to protect their rights and of intellectual property, and appreciation of the need to protect it
CO3: Understand and apply for Industrial designs, GIs and trade secrets and devise methods to protect their rights
CO4: Understand, apply and defend under the various statutes
CO5: Understand and analyze different strategies and develop their IP strategy

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2. https://www.wto.org/english/tratop_e/trips_e/intel1_e.htm

REFERENCES:

BA3071 SUSTAINABLE MANAGEMENT

OBJECTIVE:
- To provide students with fundamental knowledge of the notion of corporate sustainability

UNIT I MANAGEMENT OF SUSTAINABILITY
Management of sustainability - rationale and political trends: An introduction to sustainability management, International and European policies on sustainable development, theoretical pillars in sustainability management studies.

UNIT II CORPORATE SUSTAINABILITY AND RESPONSIBILITY
Corporate sustainability perimeter, corporate sustainability institutional framework, integration of sustainability into strategic planning and regular business practices, fundamentals of stakeholder engagement.

UNIT III SUSTAINABILITY MANAGEMENT: STRATEGIES AND APPROACHES
Corporate sustainability management and competitiveness: Sustainability-oriented corporate strategies, markets and competitiveness, Green Management between theory and practice, Sustainable Consumption and Green Marketing strategies, Environmental regulation and strategic postures; Green Management approaches and tools; Green engineering: clean technologies and innovation processes; Sustainable Supply Chain Management and Procurement

UNIT IV SUSTAINABILITY AND INNOVATION
Socio-technical transitions and sustainability, Sustainable entrepreneurship, Sustainable pioneers in green market niches, Smart communities and smart specializations.

UNIT V SUSTAINABLE MANAGEMENT OF RESOURCES, COMMODITIES AND COMMONS

TOTAL: 45 PERIODS
OUTCOMES:
CO1: An understanding of sustainability management as an approach to aid in evaluating and minimizing environmental impacts while achieving the expected social impact
CO2: Learn about corporate sustainability and responsible Business Practices
CO3: Develop ability to understand, to measure and interpret sustainability performances.
CO4: Posses Knowledge of innovative practices in sustainable business and community management
CO5: Learn to develop Sustainability in Business and commodities

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REFERENCES:
4. Margaret Robertson, Sustainability Principles and Practice, 2014
5. Peter Rogers, An Introduction to Sustainable Development, 2008
6. Introduction to Sustainable Development, Sage, 2018

BA3004 SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

OBJECTIVE:
Enables student to understand the nuances of stock market operations and the techniques involved in deciding upon purchase or sale of securities.

UNIT I INTRODUCTION TO INVESTMENTS

UNIT II FUNDAMENTAL ANALYSIS

UNIT III TECHNICAL ANALYSIS

UNIT IV PORTFOLIO CONSTRUCTION AND SELECTION
UNIT V  CAPITAL MARKET THEORY (CMT) AND MANAGED PORTFOLIOS

CMT assumptions - Capital Asset Pricing model - Lending and borrowing - CML - SML - Pricing with CAPM - Arbitrage pricing theory— Portfolio Evaluation - Sharpe’s index Treynor’s index, Jensen's index – Mutual Funds – Portfolio Revision.

TOTAL :45 PERIODS

OUTCOMES:
At the end of the course the students would be able to
CO1: Understand, Analyse and evaluate investment alternatives.
CO2: Relate, Analyse the industry and evaluate the fundamentals of the company.
CO3: Interpret, apply and estimate the secondary market parameters through technical analysis.
CO4: Compare, build and construct an efficient portfolio
CO5: Understand, apply the CAPM for Portfolios.

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REFERENCES:

BA3005  MERCHANT BANKING AND FINANCIAL SERVICES

OBJECTIVE:
To enable a better understanding of the financial structure in India and trends in financial services, merger and acquisition, and portfolio management services

UNIT I  INTRODUCTION TO MERCHANT BANKING

UNIT II  ISSUE MANAGEMENT
UNIT III   FEE-BASED FINANCIAL SERVICES


UNIT IV   FUND-BASED FINANCIAL SERVICES


UNIT V   INSURANCE AND OTHER FEE-BASED FINANCIAL SERVICES

Other Fund-based Financial Services: Consumer Credit – Credit Cards – Real Estate Financing – Bills Discounting – Factoring and Forfeiting – Venture Capital

TOTAL: 45 PERIODS

COURSE OUTCOMES:

CO1: Understand, compare and describe the financial structure in India and various regulations in the Merchant Banking Domain and recall the rules and regulations governing the Indian securities market.

CO2: Recall, Identify and discuss the public issue management mechanism, various forms of issues, roles of issue manager, SEBI guidelines and marketing of securities.

CO3: Understand, distinguish and explain the recent trends in Fee-based financial services, such as merger and acquisition, portfolio management services and credit rating.

CO4: Recall, categorise and Evaluate on the fund based financial services namely, leasing and hire purchasing.

CO5: Understand and classify the other fund based financial services such as consumer credit, real estate financing, bill discounting, factoring and venture capital.

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REFERENCES:

4. Nalini Prava Tripathy, Financial Services, PHI Learning, 2011
OBJECTIVE:
To enable students to understand the nuances and the basic operational mechanisms in derivatives

UNIT I INTRODUCTION TO FINANCIAL DERIVATIVES

UNIT II FORWARD AND FUTURES CONTRACT

UNIT III OPTIONS

UNIT IV OPTION PRICING AND SWAPS
Definition of SWAP – Interest Rate SWAP – Currency SWAP – Role of Financial Intermediary– Warehousing – Valuation of Interest Rate SWAPs and Currency SWAPs - Bonds and FRNs – Credit Risk

UNIT V DERIVATIVES IN INDIA
Evolution of Derivatives Market in India – Regulations - framework – Exchange Trading in Derivatives; Commodity Futures – Contract Terminology and Specifications for Stock Options and Index Options in NSE – Contract Terminology and specifications for stock futures and Index futures in NSE – Contract Terminology and Specifications for Interest Rate Derivatives

TOTAL: 45 PERIODS

COURSE OUTCOMES:
CO1: Understand, classify and explain the fundamentals of Derivatives and its types
CO2: Interpret, classify and evaluate the Forward and Future Contracts
CO3: Understand, categorise and assess the Options
CO4: Recall, apply and evaluate using the various Option Pricing models and Interest Rate and Currency Swaps
CO5: Relate and discuss the derivative markets in India and the indices of various derivative instruments
REFERENCES:
1. Hull, J.C. and Basu, S., Options, Futures and Other Derivatives, Pearson, 10th Edition, 2018

BA3007 FINANCIAL MODELLING L T P C
3 0 0 3

OBJECTIVE:
Enables students to build financial models by including various fields of study viz Financial Management and Corporate, Portfolio and Derivative Finance

UNIT I INTRODUCTION TO FINANCIAL MODELLING & BUILT-IN FUNCTIONS USING SPREADSHEETS 9
Introduction to Financial Modelling - Need for Financial Modelling- Steps for effective financial modelling - Introduction to Time value of money & Lookup array functions: FV, PV, PMT, RATE, NPER, Vlookup, Hlookup, if, countif, etc - Time value of Money Models: EMI with Single & Two Interest rates – Loan amortization modeling - Debenture redemption modeling

UNIT II BOND & EQUITY SHARE VALUATION MODELLING 9
Bond valuation – Yield to Maturity (YTM): Rate method Vs IRR method - Flexi Bond and Strip Bond YTM Modelling - Bond redemption modelling - Equity share valuation: Multiple growth rate valuation modelling with and without growth rates

UNIT III CORPORATE FINANCIAL MODELLING 9
Altman Z Score Bankruptcy Modelling - Indifference point modelling – Financial Break even modelling - Corporate valuation modelling (Two stage growth) - Business Modelling for capital budgeting evaluation: Payback period, NPV, IRR, and MIRR
UNIT IV PORTFOLIO MODELLING
Risk, Beta and Annualised Return – Security Market Line Modelling – Portfolio risk calculation (Equal Proportions) - Portfolio risk optimisation (varying proportions) - Portfolio construction modelling

UNIT V DERIVATIVE MODELLING
Option pay off modelling: Long and Short Call & Put options - Option pricing modeling (B-S Model) - Optimal Hedge Contract modelling

TOTAL: 45 PERIODS

COURSE OUTCOMES:
1. Identify and apply the relevance of financial models for various corporate finance purposes
2. Understand, analyse and evaluate the securities by using the modelling techniques
3. Recall, apply and appraise efficient financial budgets and the equity value of a company by applying various methods
4. Interpret, apply and assess the evaluation of securities through the tools and techniques of portfolio models
5. Understand, analyse and appraise the aptitude of analyzing the investment decision-based on derivatives

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REFERENCES:
OBJECTIVE:

To provide a broad introduction to the emerging technologies, namely Artificial Intelligence and Machine Learning and their applications in the field of finance

UNIT I OVERVIEW OF AI AND ML
Overview of AI & ML, Types of ML, the future of AI in finance, Data Banks and digital world war. AI advantages, near term work force opportunities and challenges. Deposits and Lending: AI in lending, future of deposits and lending, Power of AI to transform the global SME credit landscape, AI for credit assessment in underserved segments, Market micro structure and liquidity: Order - driven and Quote driven markets.

UNIT II AI AND ML APPLICATIONS
Introduction to R programming, Market micro structure and liquidity: order driven vs quote driven markets, AI, ML and big data in financial services, benefits and impact of AI/ML on business models of financial sector, AI applications in financial market activities. Insurance: Using AI in commercial underwriting to drive productivity growth, digitally enabled Underwriter, improving Policy life cycle management with AI and Data Science.

UNIT III AI AND ML IN PAYMENTS
Payments: AI - Next leap forward in the payments revolution, Big Data, AI and ML methods to unlock their potential in the new payment environment. Investment and wealth management: the true value of AI to transform push / pull wealth management. The Impact of AI on ESG investing. Implication for the investment value chain. AI in Indian investment and asset management: Global perspective.

UNIT IV AI AND ML IN CAPITAL MARKETS
Capital Markets: AI approaches in Capital market, AI, ML and the financial services industry. Alternative Data and metaquants: making the most of AI for visionaries in capital market. Trust in FT and AI, building trust through sound governance. AI and business ethics in financial markets, transforming Black Box AI in the financial sector. Explainable AI that is intuitive and perspective, 3 factor Fama and French model

UNIT V REGULATION OF AI
Regulation of AI within the financial services sector, changing face of regulatory compliance and audit. Robocop on Wall Street, technology for regulations and compliance. Future of AI in Finance: An AI embedded finance future, open banking, BC and AI. Automated ML and Federated learning, deep learning and financial regulation. AI trends will shape winning businesses, Governance of AI systems and accountability, AI for ESG investing.

TOTAL: 45 PERIODS

COURSE OUTCOMES:
CO1: Understand the concepts of AI and ML and describe its significance in financial services.
CO2: Recall and appraise the role of AI and ML in the financial sector.
CO3: Understand and explain the application of AI and ML in the payments sector.
CO4: Understand and explain the application of AI and ML in the capital markets
CO6: Interpret and explain the regulation of AI
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### BA3009 FINTECH AND BLOCKCHAIN APPLICATIONS IN FINANCE

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### OBJECTIVE:
To provide a broad introduction to the field of FinTech and Blockchain and its application in the field of Finance

### UNIT I FINTECH INDUSTRY AND BANKING TECHNOLOGIES

FinTech industry, Global Fintech instruments, Fintech unicorns and startups, new operating models for banking, banking as a service and open Application Programming Interface (API), Challenger banks, Neo banks, commercial transformation, Impact of FinTech on banking, digital technology on the banking sector – UPI, CBS, Mobile banking, India Stack, etc.

### UNIT II PAYMENT, DIGITAL LENDING AND INSUR TECH

Payments and remittances innovation, social media remittances, Nano payments, Digital Lending, P2P lending, Crowdfunding, Crowd Investing, digital lending for MSMEs, digital mortgages, point of sale evolution, mPOS, mobile wallets, smart credit cards, New Generation Commerce, T-commerce, FinTech and Global Economy. InsurTech, P2P insurance, IoT and Wearable technology in insurance – Cloud computing in insurance – Using Predictive analytics in insurance

### UNIT III WEALTHTECH

WealthTech - Innovative wealth management, Social investing - Robo Advisory Services – Robotic Process Automation (RPA) – Algo Trading - Big Data in financial services, Hyper personalization using big data - Cyber security, unique identification system in India, RegTech and SupTech, Internet of Things (IOT) - IOT in Financial services, New age personal finance management

### UNIT IV INTRODUCTION TO BLOCKCHAIN

Blockchain, components of blockchain, public and private keys, Byzantine General Problem, Proof of concept, Blockchain Architecture, Key blockchain characteristics, Types of blockchain, blockchain applications, compliance, clearing, and settlements, blockchain distributed ledgers - Impact and Applications of Blockchain in financial services

### UNIT V BLOCKCHAIN AND DIGITAL CURRENCIES


TOTAL: 45 PERIODS
COURSE OUTCOMES:
CO1: Understand the concepts of FinTech and critically evaluate its role in financial services.
CO2: Recall and appraise the concept of new generation commerce and new operating models for banking and insurance sector.
CO3: Understand and apply the concepts of FinTech in wealth management and personal finance management.
CO4: Understand and describe the concept and role of blockchain and its application in the financial sector.
CO5: Understand and explain the application of blockchain in cryptocurrencies and other emerging concepts in fintech.

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OBJECTIVE:
To understand the International Financial Environment, Management, and Risks involved.

UNIT I  INTRODUCTION TO INTERNATIONAL FINANCE  

UNIT II  FOREIGN EXCHANGE MARKET 
Foreign exchange market: Function and Structure of the Forex markets, major participants, types of transactions and settlements, Foreign exchange quotations, process of arbitrage.
UNIT III MANAGEMENT OF FOREIGN EXCHANGE 9

UNIT IV CROSS BORDER INVESTMENT DECISIONS 9

UNIT V MULTINATIONAL FINANCIAL INSTITUTIONS 9
Multinational financing institutions and contemporary issues: The International Bank for Reconstruction and Development, the International Development Association, The International Finance Corporation, International monetary fund, Export and Import financing

COURSE OUTCOMES:
1. Understand and explain the concept of International Finance
2. Recall and describe the functions of Foreign Exchange Market
3. Interpret, apply and estimate the management of foreign exchange exposure and risk involved in it
4. Understand, analyse and evaluate the cross-border investment decisions
5. Recall and analyse multinational financing institutions and contemporary issues

TOTAL: 45 PERIODS

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BA3011 CAPITAL AND FINANCIAL MARKETS  L  T  P  C
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OBJECTIVE:
- To understand the types and functions of the various financial markets, its instruments, and regulations.

UNIT I FINANCIAL MARKETS IN INDIA 9
Indian financial system and markets – Structure of financial markets in India – Types - Participants in Financial Market – Regulatory Environment - RBI, CCIL, Common securities market, Money market - Capital market - Governments philosophy and financial market – financial instruments
UNIT II  INDIAN CAPITAL MARKET- PRIMARY MARKET  9
Primary Market - Primary market system - Types of scripts - Issue of capital: process, regulation, and pricing of issue – Methods of floating new issues, Book building - Primary market intermediaries: commercial banks, development banks, Merchant bankers, issue managers, rating agencies, etc. – Role of primary market – Regulation of primary market.
Blockchain Technology in Capital Markets

UNIT III  SECONDARY MARKET  9
Stock exchanges in India - History and development - Listing - Depositaries - Stock exchange mechanism: Trading, Settlement, risk management, Basics of pricing mechanism - Players and stock exchange - Regulations of stock exchanges – Role of SEBI – BSE, OTCEI, NSE, ISE - Role of FIs, MFs, and investment bankers – Stock market indices – calculation.

UNIT IV  DEBT MARKET AND FOREX MARKET  9
Bond markets in India: Government bond market and its interface with capital market - Components of bond market - G-Sec, T-Bills, Corporate Bonds, Yield conventions, Role of Primary Dealers, Auction Markets - Pricing of Bonds; Money Market
Introduction to Forex Markets, basics in exchange rates theory - Forex risk exposures and basics of corporate forex risk management.

UNIT V  MUTUAL FUNDS, DERIVATIVES MARKETS AND PRIVATE EQUITY  9
Mutual funds institutions in India, Types of mutual funds, Basics in portfolio management, Metrics of performance for fund manager.
Introduction to Derivatives and the size of derivatives markets - Brief introduction to Forwards, Options, Futures and Swaps.
Venture capital and Private equity - Role of VCs and PEs in financial markets.

TOTAL: 45 PERIODS

COURSE OUTCOMES:
1. Remember and explain the basic concepts of the financial markets in India
2. Recall and describe the instruments, participants, and trading in debt market and forex markets
3. Understand, apply and explain the methods of issuing shares and the role of intermediaries in the primary market
4. Interpret and examine the trading mechanism in the stock market
5. Understand and Appraise the role of mutual fund, derivatives markets and private equity

REFERENCES:
OBJECTIVE:
- To study and understand the consumer' behavior in-order to effectively utilise the market' potential.

UNIT I  INTRODUCTION  9
Understanding Consumer behaviour - Consumption, Consumer orientation-Approaches to consumer behaviour research- Interpretive and Quantitative approaches - Effects of Technology, Demographics and Economy on Consumer behaviour.

UNIT II  INTERNAL INFLUENCES  9
Influences on consumer behavior – motivation – perception – Attitudes and Beliefs - Learning and Experience - Personality & Self Image.

UNIT III  EXTERNAL INFLUENCES  9
Socio-Cultural, Cross Culture - Family group – Reference group – Communication - Influences on Consumer behavior.

UNIT IV  CONSUMER BEHAVIOR MODELS  9
Traditional and Contemporary Consumer behaviour model for Individual and industrial buying behaviour and decision making- Consumer decision making process- Diffusion of Innovation

UNIT V  CONSUMER NEUROSCIENCE  9
Introduction to the application of neuroscience to consumer research. Nature of Neuro Marketing, Neuromarketing Versus Traditional Methods-key Benefits and Issues, Mapping the Brain. Attention and Consciousness, Eye Tracking, Senses and Perception, Sensory Neuro Marketing.

TOTAL: 45 PERIODS

Course Outcomes:
The students will be able to
1. Understand, apply and analyse the approaches to consumer behaviour research
2. Relate and interpret the internal factors that influences consumers
3. Assess the effects of external factors influences on consumer behaviour
4. Understand, apply and analyse the models of consumer and industrial buying and decision making
5. Understand, design and interpret applications of neuromarketing research
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REFERENCES:

BA3013 ADVERTISING MANAGEMENT AND SALES PROMOTION

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COURSE OBJECTIVE
- To impart knowledge on Advertisement Management and Sales Promotion.

UNIT I ADVERTISING
Advertising, evolution objectives, task and process, classification market segmentation and target audience

UNIT II MEDIA

UNIT III SALES FORCE MANAGEMENT

UNIT IV SALES PROMOTION
Why and When Sales promotion activities, Consumer and sales channel oriented – planning, budgeting and implementing and controlling campaigns. PR -Process, Publicity

UNIT V CONTROL
Implementation and control Measurement of effectiveness – Ethics, Economics and Social Relevance. Recent trends

TOTAL: 45 PERIODS
COURSE OUTCOMES

CO1: Possess knowledge and good understanding on the fundamentals of advertising
CO2: understanding and knowledge on advertising An
CO3: Discoveron advertising agencies and its operations.
CO4: Understand sales promotion campaigns.
CO5: Evaluate the relevance of Advertisement and Sales promotion.

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Reading List

2. VvRathna& S L Guptha, Advertising and Sales Promotion Management, Sultan Chand,2011

REFERENCES


BA3014 BRAND MANAGEMENT 3 0 0 3

OBJECTIVE :

- To understand the fundamental differences between services and goods and to provide insight into ways to improve service quality and productivity in various service sectors.

UNIT - I INTRODUCTION TO BRANDING

Definition of Brand - Importance of Brands – Branding Challenges and Opportunities – Brand Equity Concept – Brand Equity Models – Kepler Brand Identity Model - Brands vs. Products Constituents of a Brand: Brand Elements – Brand Identity - Image and Personality – Brand DNA, Kernel, Codes and Promises – Point of Distribution and Point of Purchase
UNIT - II  BRAND POSITIONING  9
Basic Concepts – Risks – Brands and Consumers – Competitive Advantage through Strategic 
Positioning of Brands – Points of Parity – Points of Difference – Brand Building: Designing 
Marketing Programmes to Build Brands – Role of Social Media in Brand Building – Managing and 
Sustaining Brands Long-Term.

UNIT - III  BRAND IMAGE  9
Managing Brand Image – Stages – Functional, Symbolic and Experiential Brands – Brand Audits 
– Brand Loyalty – Cult Brands

UNIT - IV  BRAND VALUATION  9
Methods of Valuation – Implications for Buying & Selling Brands. Leveraging Brands: Brand 
Extension – Brand Licensing – Co-branding – Brand Architecture and Portfolio Management

UNIT - V  BRANDING IN PRACTICE  9
Handling Name Changes and Brand Transfer – Brand Revitalisation and Rejuvenation – Global 
Branding Strategies – Building and Managing Brands Across Boundaries – Branding Industrial 
Products, Services and Retailers – Building Brands Online – Indianisation of Foreign Brands and 
Taking Indian Brands Global

TOTAL: 45 PERIODS

COURSE OUTCOMES:
1. To understand the core concepts and key elements of Branding that helps to build brand 
equity and brand image of the products.
2. To create competitive advantage through strategic positioning of brands and designing brand 
building programs.
3. To examine the elements that create brand identity for the products and enhancing the brand 
image and brand loyalty among the buyers.
4. To analyze brand leveraging value of the product by applying relevant brand valuation 
methods.
5. To adapt global brand strategies by having better understanding towards industrial, retailer 
brands and thereby promoting brands at global level.

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READING LIST
1. Kevin Lane Keller, Mats Georgson, & Tony Aperia, Strategic Brand Management, Kindle 
2. Brand Management, Palgrave Mcmillan, 2021
3. Journal of brand management, Palgrave Macmillan
BA3015 SERVICES MARKETING

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OBJECTIVE
- To understand the fundamental differences between services and goods and to provide insight into ways to improve service quality and productivity in various service sectors.

UNIT - I INTRODUCTION TO SERVICES MARKETING 9


UNIT - II SERVICE PRODUCTS, POSITIONING, DISTRIBUTION OF SERVICES 9

Service products, Flower of service, New service development - Hierarchy of new service category, Positioning of services, Customer driven strategy, Segmenting and Targeting Service Markets, Positioning maps. Distribution of services, Location considerations, Delivery of service, Challenges of distribution.

UNIT - III DEMAND AND CAPACITY MANAGEMENT, SERVICE ENVIRONMENT, SERVICE PRICING 9

Productive Service Capacity, Demand Fluctuations, Managing Demand and Capacity, Patterns of Demand, Managing Waiting Lines, Service Environment, Purpose of Service environment, Consumer Response, Dimensions, Pricing of services- Pricing strategy, Revenue Management, Ethical concerns in pricing, Putting service pricing into practice, Pricing, Strategies And Tactics.

UNIT - IV MANAGEMENT OF SERVICE QUALITY AND SERVICE PROCESS 9

Service quality- Causes Of Service – Quality Gaps, Gap model in service design, Measuring service quality, Measuring productivity, Improving service productivity, Designing service processes- Service Blueprinting, service process redesign, Customer participation in service process.

UNIT - V SERVICE STRATEGY IN VARIOUS SECTORS 9

Marketing of Service - Financial Services – Health Service - Hospitality Services including travel, hotels and tourism - Professional Service - Public Utility Services - Educational Services.

TOTAL: 45 PERIODS
COURSE OUTCOMES
1. To understand the similarities and differences in service-based and physical product based marketing activities.
2. To demonstrate a positioning of services to identify a competitive position in the market for service differentiation.
3. To manage and utilize service capacity for improving productivity of services and to analyze the influence of service environment on customer satisfaction.
4. To apply pricing strategy for different services and to examine various ethical concerns in pricing of services.
5. To assess the causes of service quality gap and to improve service productivity through service blueprinting.

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READING LIST
2. Jayantha Chatterjee Christopher Lovelock, Pearson, 2017, Kindle
3. Journal of services marketing, Emerald Insight
4. Journal of service management, Emerald Group Publishing Ltd

REFERENCES

BA3016 CUSTOMER RELATIONS MANAGEMENT

OBJECTIVE:
- To study and understand the customer relationship management concepts and marketing strategy

UNIT I INTRODUCTION
UNIT II        CRM CONCEPTS


UNIT III        PLANNING FOR CRM


UNIT IV        CRM AND MARKETING STRATEGY

CRM Marketing Initiatives, Sales Force Automation, Campaign Management, Call Centers. Practice of CRM: CRM in Consumer Markets, CRM in Services Sector, CRM in Mass Markets, CRM in Manufacturing Sector

UNIT V        CRM PLANNING AND IMPLEMENTATION

Issues and Problems in implementing CRM, Information Technology tools in CRM, Challenges of CRM Implementation. CRM Implementation Roadmap, Road Map (RM) Performance: Measuring CRM performance, CRM Metrics

TOTAL: 45 PERIODS

OUTCOMES:

On completion of the course, students will be able to
CO1: To familiarize the students to the basic and evolution of CRM
CO2: To provide insights on CRM Concepts
CO3: To throw light on CRM and strategy its development in an organization
CO4: To elucidate on CRM and Marketing Strategy
CO5: To create awareness and importance of CRM Planning and Implementation

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REFERENCES :

OBJECTIVE:
- Design a comprehensive retail marketing plan for a specific retail business.

UNIT I INTRODUCTION
An overview of Global Retailing – Challenges and opportunities – Retail trends in India – Socio economic and technological Influences on retail management – Government of India policy implications on retails.

UNIT II RETAIL FORMATS
Organized and unorganized formats – Different organized retail formats – Characteristics of each format – Emerging trends in retail formats – MNC’s role in organized retail formats.

UNIT III RETAILING DECISIONS

UNIT IV RETAIL SHOP MANAGEMENT

UNIT V RETAIL SHOPPER BEHAVIOUR
Understanding of Retail shopper behavior – Shopper Profile Analysis – Shopping Decision Process - Factors influencing retail shopper behavior – Complaints Management - Retail sales force Management – Challenges in Retailing in India.

TOTAL: 45 PERIODS

COURSE OUTCOMES:
CO1: Recall the key concepts and principles of retail marketing.
CO2: Demonstrate the fundamental principles and strategies of retail marketing.
CO3: Experiment retail marketing techniques to develop effective product displays and visual merchandising.
CO4: Analyze retail shopper behavior in the context of retail marketing.
CO5: Evaluate the effectiveness of retail marketing strategies and campaigns.
CO6: Design a comprehensive retail marketing plan for a specific retail business.

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DIGITAL MARKETING

OBJECTIVE:
- To understand Digital Marketing Space and acquire knowledge in digital Marketing Strategy

UNIT I
DIGITAL MARKETING STRATEGY
9
Digital vs. Traditional marketing- Online marketing space - Significance of digital marketing - Online marketing mix - E-products - STP - E-price - E-Promotion - Affiliate marketing - Online tools for Content Marketing – Market influence analytics in Digital Eco System.

UNIT II
SEO
9

UNIT III
EMAIL AND MOBILE MARKETING
9
Email and Mobile Marketing E-Mail Marketing - Types of E-Mail Marketing - Email Automation -Lead Generation -Integrating Email with Social Media and Mobile- Measuring and maximising email campaign effectiveness. Mobile Marketing-Mobile Inventory/channels- Location based; Context based; Coupons and offers, Mobile Apps, Mobile Commerce, SMS Campaigns-Profiling and targeting

UNIT IV
SOCIAL MEDIA MARKETING
9
Social Media Channels - Social Media Strategy - Web PR and Online reputation management - Adwords - PPC Advertising - Video SEO - Conversion Optimization Monitoring - trends analysis – dashboards - segmentation - Navigation analysis (funnel reports, heat maps, etc.).

UNIT V
SEARCH AND WEB ANALYTICS
9
Repatriation-issues-best practices; Sustainable practices through Ethics and CSR; Green HRD; Ethical Issues-dispute settlement-International labour contract.Knowledge Management-Transfer; Changing and Future Trends: International labour standards, Managing Remote Work -issues-digital privacy and decent work. Search analytics Current trends & challenges - web analytics & Web 2.0, multi-channel marketing management, web mining & predictive analytics - Understanding the key fabric of the Web - Sources of data: clickstream data, online surveys, usability research - Clickstream data collection techniques - web server log analysis - page tagging - Web metrics and Key Performance Indicators (KPIs): simple views, visitor counts, measuring content, engagement, conversions, etc. Framework for mapping business needs to web analytics tasks - Data collection architecture- Introduction to OLAP, Web data exploration and reporting - Introduction to Splunk.

TOTAL: 45 PERIODS
COURSE OUTCOMES:
On completion of the course, students will be able to

CO1: To examine and explore the role and importance of digital marketing in today’s rapidly changing business environment.

CO2: To focus on how SEO can be utilised by organisations and how its effectiveness can be measured.

CO3: To know the key elements of a digital marketing strategy in email and mobile.

CO4: To analyse how the effectiveness of social media marketing and how it can be measured.

CO5: To demonstrate advanced practical skills in common digital marketing tools such as SEO, SEM, Social media and Blogs.

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2. Digital marketing: global strategies from the world's leading experts YJ Wind, V Mahajan - 2002 - books.google.com
3. Digital marketing: A practical approach A Charlesworth - 2014 taylorfrancis.com

REFERENCES:

BA3019 MARKETING ANALYTICS

OBJECTIVES:
- To familiarize the students to the basic concepts of Marketing analytics.

UNIT I MARKETING ANALYTICS FRAMEWORK
UNIT II   BUSINESS STRATEGY AND OPERATIONS  9
Analytics based strategy selection with strategic models - Strategic Scenarios, Strategic Decision Models, and Strategic Metrics.

UNIT III   PRODUCT AND PRICE ANALYTICS  9
Product analytics: Conjoint Analysis model - Decision Tree Model - Portfolio Resource Allocation - Product/ service Metrics, Attribute Preference testing.

UNIT IV   DISTRIBUTION AND PROMOTIONS ANALYTICS  9
Distribution Analytics: Distribution Channel Characteristics - Retail Location selection, Channel Evaluation and Selection - Multi-channel Distribution.
Promotion Analytics: Promotion Budget estimation - Promotion Budget Allocation – Ad value equivalence model - Promotion Metrics for traditional Media - Promotion Metrics for social media.

UNIT V   SALES ANALYTICS  9
E commerce sales model, sales metrics, profitability metrics and support metrics - Rapid decision models - data driven presentations - contemporary issues and opportunities in application of marketing analytics in different sectors.

TOTAL: 45 PERIODS

OUTCOMES:
On completion of the course, students will be able to
CO1: Understand the basic concepts of marketing analytics.
CO2: Analyse and Implement Business Strategies.
CO3: Use differential Product and Price analytics.
CO4: Compare and employ on distribution analytics.
CO5: Use appropriate sales analytics.

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READING LIST:
1. Marketing analytics: Methods, practice, implementation, and links to other fields
2. Marketing analytics for customer engagement: a viewpoint
3. S Nagaraj - International Journal of Information Systems and Social …, 2020 - igi-global.com
4. Journal of Marketing Analytics - Palgrave Macmillan
5. Applied Marketing Analytics | Henry Stewart Publications

REFERENCES:

BA3020  INDUSTRIAL AND LABOUR RELATIONS  L T P C
3 0 0 3

OBJECTIVE:
- To acquaint the learners with the practices of industrial and labour relations for maintaining industrial peace and harmony in the perspective of governments, employers and employees well being leading industrial growth.

UNIT I  INDUSTRIAL RELATIONS
9
Concept, scope- objectives- Importance - Approaches to IR- Industrial relations system in India. Trade Unions Act,1926- trade union movement in India- objective -role - functions- procedure for registration of trade unions- Rights and responsibilities- problems- Employee relations in IT sector.

UNIT II  LABOUR RELATIONS
9

UNIT III  LABOUR LEGISLATIONS-I
9

UNIT IV  LABOUR LEGISLATIONS-II
9

UNIT V  LABOUR LEGISLATIONS-III
9

TOTAL: 45 PERIODS

COURSE OUTCOMES:
After completion of the course, the student will be able:
CO1: To Understand and appreciate Industrial relations system and Trade unions
CO2: To Understand and Evaluate the Industrial Disputes and labour welfare measures
CO3: To articulate, and appraise the Labour legislation & legal provisions for factory workers, wages and Bonus
CO4: To analyse and evaluate the Legal provisions for equal remuneration, gratuity, compensation, industrial employment and Apprenticeship
CO5: To understand and apply the Legal provisions for EPF, ESI, Maternity, contract labours, and child labour prevention and the perspectives of New Labour Codes
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**REFERENCES**:
7. Web References: https://labour.gov.in/labour-codes

### BA3021 EMOTIONAL INTELLIGENCE FOR MANAGERIAL EFFECTIVENESS

**COURSE OBJECTIVE**
- To appreciate the importance of Emotional Intelligence and Work Setting and becoming an effective Manager.

### UNIT I INTRODUCTION TO EMOTIONAL INTELLIGENCE
Meaning of Emotions- Emotional Intelligence- Importance- Models of Emotional Intelligence- Trait EI- Social Intelligence- IQ and EQ- Self Awareness- Social Skills – Relationship Management- EI and Motivation

### UNIT II UNDERSTANDING EMOTIONS
The Brain and Emotion - The Relationship of Mood and Emotion - The Role of Emotion in Organizational Health and the Bottom Line - Types of Emotions- Control of Emotions - Gender Differences in Emotion - Impulse Control- Marshmallow Experiment- Negative and Positive Emotions – Emotion and Health

### UNIT III MANAGING EMOTIONS

### UNIT IV EI AT WORK PLACE
UNIT V  EMOTIONAL COMPETENCY AND EMOTIONAL CAPITAL
9

TOTAL: 45 PERIODS

COURSE OUTCOMES
CO1: To Recognize and apply basic concepts of Emotional Intelligence
CO2: To understand, appreciate and evaluate various emotions and their role in wellbeing
CO3: To assess and appraise the role of EI training in Managing Oneself.
CO4: To determine the importance in EI in work place
CO5: To evaluate the role of Emotional Capital and Emotional Competency in Individual and Organizational success.

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REFERENCES
OBJECTIVE:
- To derive a strong understanding of HR Analytics, Process and impact

UNIT I  INTRODUCTION TO HUMAN RESOURCE ANALYTICS  9

UNIT II  STATISTICS FOR HRM  9
Statistical analysis for HR, Toolkits, Compensation KPIs, Power interest stakeholder matrix, Data models, Creating dash boards, analyzing and reporting.

UNIT III  BEST PRACTICES IN HR ANALYTICS  9
Staffing, supply and demand forecasting, Total compensation analyses, Performance Analytics, Attrition Analytics, Learning and Development Analytics, Diversity Analytics, Employee engagement analytics - Employee satisfaction analytics.

UNIT IV  MEASURING HR CONTRIBUTION  9
Developing HR Scorecard, Developing HR Analytics Unit: Analytics Culture, Analytics for decision making, Analytics for Human Capital in the Value Chain- Balance Score card – ROI –Predictive Analytics.

UNIT V  HR REGULATIONS AND REPORTING REQUIREMENTS  9
Policies, Procedures and guidelines, Key regulations and reporting requirements, connecting missions or goals to HR Benchmarks and metrics, Reporting & Advising - the 4 rules of reporting HR analytics - importance of data visualization.

TOTAL: 45 PERIODS

COURSE OUTCOMES:
On completion of the course, students will be able to
CO1 Gain clarity on the concept of HR Analytics.
CO2 Explore on statistics and toolkits.
CO3 Contrasting and assimilating best practices in HR analytics.
CO4 Demonstrate in analyzing optimal methods for measuring HR contribution
CO5 Design and construct HR regulations and reporting requirements.

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READING LIST
1. Mong Shen Ng, ‘Predictive HR Analytics, Text Mining & Organizational Network Analysis (ONA)’.
3. Steve van Wieren, (https://amzn.to/38rgT1y)
4. Erik van Vulpen, (https://amzn.to/36ekU6l)
REFERENCES

BA3023 STRATEGIC HUMAN RESOURCE MANAGEMENT

OBJECTIVE
- Students gain necessary insight on the strategic role of Human Resources in an organization and develop the skills and capabilities to become an effective HR managers.

UNIT I FRAMEWORK OF SHRM
Conceptual Background- Strategic Management and HRM - Strategic role of HR function - Models of SHRM-Characteristics of SHRM-Approaches to SHRM - SHRM Framework- HR Strategy – SHRM and Performance Outcomes - Emerging HR Scenario

UNIT II CONTEXT OF SHRM
Business Environment and SHRM- Systems Concept – Internal and External Environment - Global Context for SHRM- Technological Environment – IT and HRM- - Social Media and HR – Big Data and HR - Changing context and SHRM

UNIT III STRATEGY FORMULATION

UNIT IV STRATEGY IMPLEMENTATION
Strategic Talent acquisition – Change and Strategic HRP- Strategic Training: Training to Learning, Organizational Learning, ADDIE model - Learning and Knowledge Management: Perspectives on Knowledge Management, Knowledge Sharing and Knowledge Seeking, Knowledge Management and Organizational Performance – Work force Utilization - Performance Appraisal to Performance Management – Strategic Compensation design - Employee Retention and Employee Engagement.

UNIT V STRATEGY EVALUATION

TOTAL: 45 PERIODS
COURSE OUTCOMES

CO1: To Understand and appreciate strategic nature of human resource practices.
CO2: To evaluate the various environmental context of SHRM.
CO3: To articulate, evaluate and appraise the strategy formulation for job modelling and work analysis.
CO4: To analyse and evaluate the strategic implementation of HR Processes.
CO5: To measure and evaluate HR Strategies.

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BA3024 TALENT MANAGEMENT L T P C

OBJECTIVE:
- To have a clear understanding of the concept of talent management and its role.

UNIT I INTRODUCTION TO TALENT MANAGEMENT

UNIT II TALENT PLANNING – UNDERSTANDING THE NEEDS AND MIND SET OF EMPLOYEES
Succession management process, Integrating succession planning and career planning, designing succession planning program, talent development budget, contingency plan for talent; building a reservoir of talent, compensation management within the context of talent management.

UNIT III TALENT ACQUISITION AND RETENTION
Talent Acquisition- Defining Talent Acquisition, Develop high potential employees, High performance workforce, Importance of Talent Development Process, Steps in developing talent. Talent Retention: SMR Model (Satisfy, Motivate and Reward), Employee Retention Programs, Career Planning and Development, Best practices in employee retention.

UNIT IV COMPETENCY MAPPING
Concepts and definition of competency; types of competencies, Features of competency, approaches to mapping methods, Competency mapping procedures and steps, 5-level competency model, Developing competency models from raw data-data recording, analyzing the data, content analysis of verbal expression, validating the competency models, how competencies relate to career development and organizational goals.

UNIT V METHODOLOGY OF COMPETENCY MAPPING
Competency models people capability maturity model, developing competency framework, competency profiling, competency mapping tools, use of psychological testing in competency mapping, competency-based interviewing, assessment of competencies through 360 degree feedback, BEI, CIT, validation of competencies.

TOTAL: 45 PERIODS

OUTCOMES:
On completion of the course, students will be able to
CO1: Have a clear understanding the concept of talent management and its role
CO2: Have knowledge on talent planning
CO3: Have knowledge of talent acquisition and retention
CO4: Have an understanding of the concept of competency mapping and models of competency mapping
CO5: Have an understanding the methodology to be followed in competency mapping

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READING LIST:
1. Talent management, William J Rothwell
2. Talent Management for the 21st century, P Cappelli-HBR
3. Strategic Talent Management, Robert J Greene
4. Reinventing Talent Management, Edward E Lawler
REFERENCES:

BA3025 NEGOTIATION AND CONFLICT MANAGEMENT

OBJECTIVE:
- To develop an understanding of the nature and strategies of negotiation.
- To understand conflict and strategies to resolve the conflict.

UNIT I FUNDAMENTALS OF NEGOTIATION

UNIT II NEGOTIATION STRATEGIES
strategy and planning for negotiation- Strategy and Tactics for distributive bargaining - Integrative negotiation-Negotiation power- source of power- Cross culture Negotiation-Ethics in negotiation.

UNIT III INTRODUCTION TO CONFLICT MANAGEMENT

UNIT IV MANAGING INTERPERSONAL, GROUP AND ORGANIZATIONAL CONFLICT

UNIT V CONFLICT RESOLUTION AND COST

TOTAL: 45 PERIODS
COURSE OUTCOMES:
The student will be able to
CO1 Relate, classify and outline the fundamentals of Negotiation, Types, process and techniques.
CO2 Develop, Infer and Assess the Strategies and tactics in Negotiation.
CO3 Recall, explain, apply the basics of Conflict management, models, approaches and process.
CO4 Analyze and Manage interpersonal, group and organizational conflict.
CO5 Evaluate and infer the conflict resolution models and cost of workplace conflict.

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REFERENCES:
1. Negotiation - Roy Lewicki, Bruce Barry and David Saunders, MGH, 8TH edition 2020

BA3026 INTERNATIONAL HRD L T P C
3 0 0 3

OBJECTIVE:
- To elucidate development of global IHRM practices

UNIT I IHRD 9
Scope of IHRD- Positivist and Interpretive views on Culture, Values, Power-Cross Cultural Management, Model, Dimensions; Comparison between HRD India and Globalization. Learning Theories globally and implications-Career development in multinational and multicultural environment-Schein’s career anchors-Holland’s vocational preference inventory.

UNIT II PROCESSES 9
UNIT III DEVELOPMENT & PRACTICES
Multinational companies and Host companies-Sustainable practices of host and divergent country employment arrangements-Global Employment Relations. Training & Development in global environment- Krikkpatrick’s Taxonomy-Expatriate Training, PMS -Transition of Expats to global leaders-Global and local sourcing-Compliance to Labour Market-Capitalist Vs Socialist Market economies

UNIT IV PRACTICES IN ECONOMIES
PMS in different economies- Total Rewards in International Context-Components-Complexities-approaches.
Global Context: EEO-Gender Sensitivity-Diversity-Inclusivity- Onshoring, offshoring, Friendshoring-Models of strategic HRD.

UNIT V SUSTAINABILITY
Repatriation-issues-best practices; Sustainable practices through Ethics and CSR; Green HRD; Ethical Issues-dispute settlement-International labour contract.

TOTAL: 45 PERIODS

OUTCOMES:
On completion of the course, students will be able to
CO1: Demonstrate IHRM factors influential in global corporations
CO2: Design IHRM elements for global assignments
CO3: Critique and conclude developmental strategies for IHRM practices
CO4: Implement and audit compliance IHRM norms
CO5: Predict and appraise sustainable IHRM practices

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1. International HRD: context, processes and people – introduction
2. Theoretical frameworks for comparing HRD in an international context, Jean Woodall
3. The Issue of International Values and Beliefs: The Debate for a Global HRD Code of Ethics, Darlene Russ-Eft, Timothy Hatcher
4. International Technology Transfer For Competitive Advantage: A Conceptual Analysis Of The Role Of HRD, A. Ahad M. Osman-Gani

REFERENCES:


BA3027  COMPENSATION AND REWARDS MANAGEMENT  L T P C
                                                  3 0 0 3

OBJECTIVES:

• To familiarize the students to the basic concepts of compensation.

UNIT I  COMPENSATION  9
types of compensation, conceptual framework of compensation management, Theories of wages – criteria of wage fixation – Institutional and cultural factors on compensation practices – National differences in compensation – Compensation system design issues: Compensations Philosophies, compensation approaches – Strategic

UNIT II  COMPENSATION PLANNING  9
Developing a total compensation strategy – Competitive Advantage – Job evaluation systems, the compensation structure- Wage and salary surveys, the wage curve, pay grades and rate ranges, preparing salary matrix, fixing pay, significant compensation issues.

UNIT III  VARIABLE PAY  9
Strategic reasons for incentive plans, administering incentive plans, individual incentive plans, group incentive plans ,team compensation, ESOPs, Performance measurement issues, incentive application and globalization, Managing Employee Benefits: Nature and types of benefits, employee benefits programs security benefits, retirement security benefits, health care benefits, time–off benefits, benefits administrations, employee benefits required by law, discretionary major employee benefits, employee services designing a benefits package.

UNIT IV  EXECUTIVE COMPENSATION  9
Elements of executive compensation and its management, Executive compensation in an international context, Wage Determination: Principles of wage and salary administration, methods of wage determination in India; internal and external equity in compensation systems

UNIT V  WAGE ADMINISTRATION IN INDIA  9
wage policy in India, wage boards: structure, scope and functions, Pay Commissions. International Compensation, global convergence of compensation practices - Pay for performance for global employees -practices in different industries, Employee benefits around the world, CEO pay in a global context, Beyond compensation.

TOTAL: 45 PERIODS

OUTCOMES:
On completion of the course, students will be able to
CO1: Be familiarized with compensation
CO2: Understand Compensation Planning
CO3: Design Executive Compensation
CO4: Understand Wage administration in India
CO5: Be aware of the importance of Wage administration in India
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READING LIST:
1. A Strategic Perspective on Compensation Management, Milkovich, George T.
2. Compensation Management, Dipak Kumar Bhattacharyya
4. Compensation in Organizations, Sara L. Rynes, Barry Gerhart

REFERENCES:

BA3028 SYSTEM ANALYSIS AND DESIGN

COURSE OBJECTIVE:
To equip students with the knowledge and skills necessary to analyze, design, and implement effective information systems, and understand the role of system analysts in the development process.

UNIT I SYSTEM ANALYSIS FUNDAMENTALS

UNIT II CASE TOOLS

UNIT III REVIEW AND SELECTION FACT
UNIT IV  THE ESSENTIALS OF DESIGN
Designing Effective Output: Objectives, Types of Output, Method, Factors to consider - Designing Effective Input: Objectives, Guideline for Form design, Screen and Web Forms, Designing User Interface: Objectives, Types of user interface, Designing Accurate Data – Entry Procedures: Objectives, Effective coding, Data-Entry Method, Ensuring data quality through input validation.

UNIT V  QUALITY ASSURANCE THROUGH SOFTWARE ENGINEERING
TOTAL: 45 PERIODS

COURSE OUTCOMES:
On completion of this course, students will;
CO1 Demonstrate proficiency in conducting system analysis and design, understanding the fundamental concepts and principles involved in the process.
CO2 Apply system development strategies, such as the Systems Development Life Cycle (SDLC) and structured analysis development methods, to effectively plan and execute system development projects.
CO3 Utilize computer-assisted tools (CASE tools) to enhance the system analysis and design process, leveraging their benefits for improved efficiency and effectiveness.
CO4 Apply various system analysis techniques, including data flow diagrams (DFD), data dictionaries, process specifications, decision trees, decision tables, and structured English, to effectively analyze and design system components.
CO5 Ensure the quality of the designed system through software engineering practices, including proper software design and documentation, implementation testing, and post-implementation review.

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REFERENCES:
3. Alan Dennis and Barbara Wixom, Roberta M. Roth, Systems Analysis and Design, Wiley, 2018
COURSE OBJECTIVE:
To Prepare students with comprehensive knowledge and skills to operate and manage e-commerce ventures effectively.

UNIT I INTRODUCTION

UNIT II E-COMMERCE

UNIT III BUSINESS MODEL

UNIT IV ONLINE PAYMENT

UNIT V E-COMMERCE INDUSTRIES

TOTAL: 45 PERIODS

COURSE OUTCOMES:
Upon completion of the course, students will be able to:
1. Demonstrate understanding of essential e-business components and technologies.
2. Apply knowledge management and e-commerce principles across different sectors.
3. Analyze business models, marketing strategies, and challenges in e-commerce.
4. Understand online payment systems, e-security protocols, and legal considerations.
5. Evaluate the e-commerce industry landscape and consumer protection concerns.

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BA3030 INTERNET OF THINGS L T P C
3 0 0 3

COURSE OBJECTIVE:
- To provide insights to the students on the basic concepts of IoT.

UNIT - I INTRODUCTION
9
Evolution of Internet of Things - Physical Design of IoT - Logical Design of IoT - IoT Enabling Technologies - IoT Levels and Deployment Templates - Domain Specific to IoTs.

UNIT - II IOT ARCHITECTURE
9

UNIT - III BUILDING IOT
9

UNIT - IV IOT DATA PLATFORM
9

UNIT - V CASE STUDIES AND REAL-WORLD APPLICATIONS
9

TOTAL: 45 PERIODS

COURSE OUTCOMES:
1. Understanding the basic concepts of IoT.
2. Analysing the various models related to IoT architecture.
3. Evaluate the design and building blocks of IoT.
4. Assess the importance of data analytics tools for IoT.
5. Analyse the IoT related case-studies and real world applications.

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REFERENCES
4. Olivier Hersent, David Boswarthick, Omar Elloumi, —The Internet of Things – Key applications and Protocols, Wiley, 2012

BA3031 CLOUD COMPUTING

OBJECTIVE
- To provide insights on characteristics, challenges and virtualization concepts of cloud computing.

UNIT I HISTORY OF CLOUD COMPUTING
History of Centralized and Distributed Computing - Overview of Distributed Computing, Cluster computing, Grid computing. Technologies for Network based systems- System models for Distributed and cloud computing- Software environments for distributed systems and clouds

UNIT II INTRODUCTION TO CLOUD COMPUTING

UNIT III CLOUD COMPUTING APPLICATIONS
Cloud Programming and Software Environments – Parallel and Distributed Programming paradigms – Emerging Cloud software Environment.

UNIT IV CLOUD SECURITY

UNIT V GOVERNANCE AND THE FUTURE OF CLOUD

TOTAL: 45 PERIODS

COURSE OUTCOMES
1. Understanding the history and models of cloud computing.
2. Analyse the characteristics, challenges and virtualization concepts of cloud computing..
3. Comprehend on cloud computing applications
4. Compare and contrast on cloud access, cloud provenance and cloud security.
5. Applying your thoughts on governance and the future of cloud based system in organization
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READING LIST:

REFERENCES:
1. Rao, M N ; Cloud Computing; Prentice Hall India; 2015

BA3032 ENTERPRISE RESOURCE PLANNING L T P C

OBJECTIVE:
To develop students with the necessary knowledge and skills to effectively analyze, select, implement, and integrate ERP systems in various business contexts.

UNIT I INTRODUCTION
ERP Introduction - Origin, Evolution, Structure and Benefits - Conceptual Model of ERP- Scenario and Justification of ERP in India - Various Modules of ERP - Advantage of ERP.

UNIT II DATA MANAGEMENT
Advancement of IT and Impact on organizations data management: Data warehousing, Data Mining, Online Analytic Processing (OLAP), Product Life Cycle Management (PLM), ERP Marketplace and Marketplace Dynamics: Market Overview, Marketplace Dynamics, and The changing ERP Market.

UNIT III MARKETPLACE DYNAMICS

UNIT IV ERP IMPLEMENTATION

UNIT V TRENDS

TOTAL: 45 PERIODS
OUTCOMES
On completion of this course, students will be able to:

1. Understand the concepts and benefits of ERP systems, and their relevance in the Indian business environment.
2. Gain knowledge about advancements in information technology and their impact on data management, including data warehousing, data mining, OLAP, and PLM.
3. Recognize the dynamics of the ERP marketplace, including market trends and changes in ERP systems.
4. Comprehend the functional modules of ERP software and their applications in supply chain management and customer relationship management.
5. Evaluate critical success factors and strategies for successful ERP implementation, including business process mapping, the role of consultants, vendors, and employees. Students will also be aware of potential causes of ERP failure and approaches for integrating ERP into organizational culture.

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BA3033 SOFTWARE PROJECT AND QUALITY MANAGEMENT L T P C
3 0 0 3

OBJECTIVE:
- To comprehend and reflect on overview of project planning, project evaluation, project analysis and technical planning, software estimation

UNIT I INTRODUCTION 9
Project Overview - Traditional Project Management - Scoping the Project - Identifying Project Activities-An overview of project planning, project evaluation, project analysis and technical planning, software estimation. Organizational quality goals, policy, quality plans, certification, accreditation, process measurements, audits.

UNIT II REQUIREMENTS 9
Estimating Duration, Resource Requirements and Cost - Constructing and Analyzing the Project Network Diagram - Finalizing the Schedule and Cost Based on Resource Availability - Organizing and Conducting the Joint Project Planning Session. Capability Maturity Model: CMM & CMMI, goals, commitment, ability, measurement & verification, maturity levels, key process areas, key process indicators, process monitoring and control
UNIT III  PROJECT TEAMS
Recruiting Organizing and Managing the Project Team - Monitoring and Controlling Progress - Closing out the Projects - Critical Chain Project Management - Activity planning, project schedules, sequencing and scheduling projects. Test Maturity Model & Six Sigma: Overview, Key Process Areas, TPI framework of test quality, levels of maturity, assessment, analysis, reporting.

UNIT IV  FRAMEWORK

UNIT V  STANDARDISATIONS

TOTAL: 45 PERIODS

COURSE OUTCOMES:
CO1: Comprehend and reflect on overview of project planning, project evaluation, project analysis and technical planning, software estimation.
CO2: Analyze Resource scheduling and management, CMM, key process indicators, process monitoring and control.
CO3: Generate and align Critical Chain Project Management, Test Maturity Model & Six sigma and collate reports.
CO4: Evaluate existing Adaptive Project Framework and build quality models based on Six Sigma & Lean Process Model.
CO5: Contrast and conclude Software configuration management processes and audit Quality standardisations.

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READING LIST:
1. Software Quality Journal, Springer

REFERENCES:
OBJECTIVE:
- To provide insights to the characteristics and architecture of data warehouse.

UNIT I DATA WAREHOUSE
Introduction to Data warehouse, Difference between operational database systems and data warehouses, Data warehouse Characteristics, Data warehouse Architecture and its Components, Extraction-Transformation-Loading, Logical(Multi-Dimensional), Data Modeling, Schema Design, Star and Snow-Flake Schema, Fact Constellation, Fact Table, Fully Addictive, Semi-Addictive, Non-Addictive Measures; Fact-Less-Facts, Dimension Table Characteristics; OLAP Cube, OLAP Operations, OLAP Server Architecture-ROLAP, MOLAP and HOLAP.

UNIT II DATA MINING
Fundamentals of data mining, Data Mining Functionalities, Classification of Data Mining systems, Data Mining Task Primitives, Integration of a Data Mining System with a Database or Data Warehouse System, Major issues in Data Mining. Data Preprocessing: Need for Preprocessing the Data, Data Cleaning, Data Integration &Transformation, Data Reduction, Discretization and Concept Hierarchy Generation.

UNIT III ASSOCIATION RULES

UNIT IV CLASSIFICATION
Problem Definition, General Approaches to solving a classification problem, Evaluation of Classifiers, Classification techniques, Decision Trees-Decision tree Construction, Methods for Expressing attribute test conditions, Measures for Selecting the Best Split, Algorithm for Decision tree Induction; Naive-Bayes Classifier, Bayesian Belief Networks; K- Nearest neighbor classification-Algorithm and Characteristics, prediction: Accuracy and Error measures, Evaluating the accuracy of a classifier or a predictor, Ensemble methods.

UNIT V CLUSTERING
Clustering Overview, A Categorization of Major Clustering Methods, partitioning methods, hierarchical methods, partitioning clustering-k-means algorithm, pam algorithm; hierarchical clustering-agglomerative methods and divisive methods, Basic Agglomerative Hierarchical Clustering Algorithm, Key Issues in Hierarchical Clustering, Strengths and Weakness, Outlier Detection.

TOTAL: 45 PERIODS

COURSE OUTCOMES:
CO1: Have insights to the characteristics and architecture of data warehouse.
CO2: Apply knowledge on the fundamentals, classification and major issues in data mining.
CO3: Apply knowledge on APRIORI principle & Algorithm and Association rule generation.
CO4: Understanding on classification techniques, decision tree and Bayesian Belief Networks.
CO5: Understand the various clustering techniques.
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READING LIST:
1. Data Mining and Knowledge Discovery, Springer
2. International Journal of Information Management, Science Direct

REFERENCES:
1. Parteek Bhatia; Data mining and data warehousing; Principles and Practical applications; Cambridge University Press; 2019
4. George M. Marakas, Modern Data Warehousing, Mining and Visualization, Pearson Publications. 3rd Impression, 2009

BA3035 DEEP LEARNING AND ARTIFICIAL INTELLIGENCE

OBJECTIVES:
- This course aims to provide students with a comprehensive understanding of deep networks, models, intelligent systems, knowledge representation, and their applications in the field of artificial intelligence.

UNIT I DEEP NETWORKS

UNIT II MODELS:

UNIT III INTELLIGENT SYSTEMS

UNIT IV KNOWLEDGE REPRESENTATION

Page 87 of 109
UNIT V  APPLICATIONS

TOTAL: 45 PERIODS

OUTCOMES:

CO1: Apply modern practices and techniques in deep networks, including gradient-based learning, hidden units, architecture design, and regularization, to effectively solve complex problems.

CO2: Employ optimization strategies, such as parameter initialization, adaptive learning rates, and approximate second-order methods, to optimize deep models and improve their performance.

CO3: Demonstrate proficiency in utilizing problem-solving techniques, such as state-space search and control strategies, to develop intelligent systems that can address real-world challenges.

CO4: Utilize various approaches to knowledge representation, such as semantic networks and frames, to effectively model and represent knowledge in intelligent systems.

CO5: Analyze, design, and implement expert systems, including blackboard systems and truth maintenance systems, to solve domain-specific problems in diverse fields.

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BA3036  FUNDAMENTALS OF BUSINESS ANALYTICS  L T P C
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COURSE OBJECTIVE:
- To enable the students to understand the basics of Business Analytics.

UNIT I  INTRODUCTION TO BUSINESS ANALYTICS
Meaning - Historical overview of data analysis – Data Scientist Vs Data Engineer Vs Business Analyst – Career in Business Analytics – Introduction to data science – Applications for data science – Roles and Responsibilities of data scientists
UNIT II DATA VISUALIZATION
Data Collection- Data Management-Big Data Management- Organization/sources of data - Importance of data quality - Dealing with missing or incomplete data - Data Visualization - Data Classification Data Science Project Life Cycle: Business Requirement- Data Acquisition- Data Preparation- Hypothesis and Modeling- Evaluation and Interpretation, Deployment, Operations, Optimization

UNIT III DATA MINING
Introduction to Data Mining - The origins of Data Mining - Data Mining Tasks-OLAP and Multidimensional data analysis-Basic concept of Association Analysis and Cluster Analysis.

UNIT IV MACHINE LEARNING
Introduction to Machine Learning - History and Evolution - AI Evolution –Statistics Vs Data Mining Vs, Data Analytics Vs, Data Science-Supervised Learning, Unsupervised Learning, Reinforcement Learning–Frame works for building Machine Learning Systems.

UNIT V APPLICATION OF BUSINESS ANALYSIS

TOTAL: 45 PERIODS

COURSE OUTCOMES:
The students will be able to
CO1 Understand the basics of Business Analytics.
CO2 Describe and visualize data through collecting, managing and analyzing data.
CO3 Analyse knowledge on data mining and multi-dimensional data analysis.
CO4 Evaluate Survey knowledge on machine learning and AI.
CO5 Summarize knowledge on the analysis of various areas of business.

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Reading List

REFERENCES:
1. Majid Nabavi, David L. Olson, Introduction to Business Analytics, Business Expert Press,2018
COURSE OBJECTIVE:
- To equip students with the knowledge and skills necessary to effectively analyze data using the R programming language.

UNIT I OVERVIEW OF R PROGRAMMING

UNIT II WORKING WITH R
Reading and writing data-R libraries-Functions and R programming—the If statement-looping:for, repeat, while-writing functions-function arguments and options—Basic R commands

UNIT III READING AND GETTING DATA IN TO R (External Data)

UNIT IV STATISTICAL ANALYSIS IN R
Random Forest, Decision Tree, Normal and Binomial distributions, Time Series Analysis, Linear and Multiple Regression, Logistic Regression, Survival Analysis.

UNIT V DATA FOR ANALYTICS
Creating data for analytics through designed experiments, Creating data for analytics through active learning, Creating data for analytics through enforcement learning.

TOTAL: 45 PERIODS

COURSE OUTCOMES:
On completion of this course, students will
1. Become proficient in using R programming language, including understanding the syntax, working with objects, performing operations, and using functions.
2. Learn how to import and manage data from various sources and create visualizations to gain insights from the data.
3. Learn and apply statistical techniques such as regression, probability distributions, and time series analysis to analyze data and make informed decisions.
4. Gain knowledge and skills in advanced analytics techniques such as Random Forest and Decision Trees to analyze complex datasets and make predictions or classifications.
5. Learn techniques to design experiments and collect data for analytics purposes, as well as explore methods like active learning and reinforcement learning to improve data accuracy.

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BA3038 BUSINESS ANALYTICS USING PYTHON L T P C 3 0 0 3

COURSE OBJECTIVE:
- To empower students with the ability to effectively apply Python for business analytics, enabling them to derive valuable insights and make data-driven decisions across diverse domains.

UNIT I INTRODUCTION

UNIT II VISUALIZING BUSINESS DATA USING TABLEAU
Visualizations Using Python & R - Understanding the Metrics across domains -Developing Metrics - Flowchart for Metric Creation.

UNIT III BUSINESS MODELS & STRATEGIES
Business Models - Marketing Engineering – Segmentation Analytics – Clustering Algorithms - Positioning Analysis - Data Mining applications.

UNIT IV MARKETING MIX ANALYTICS
New Product development decisions - Pricing the Product - Forecasting the Sales – Allocating the Retail space & Sales Resource – Consumer Attribution Modelling Methods.

UNIT V MARKETING MIX ANALYTICS APPLICATIONS

TOTAL: 45 PERIODS

COURSE OUTCOMES:
After studying this course, Students will
1. Acquire a strong command of Python for conducting business analytics tasks, encompassing data manipulation, analysis, and visualization.
2. Learn to employ Python libraries to craft compelling and informative visual representations of data, empowering them to effectively convey insights to stakeholders.
3. Gain practical experience in utilizing Python libraries to implement advanced analytics methods, such as segmentation analysis, clustering, sentiment analysis, and market basket analysis.
4. Acquire the skills to analyze business data using Python, extract valuable insights, and leverage them to make well-informed decisions across various domains, including marketing, pricing, forecasting, and resource allocation.

5. Engage in hands-on projects and case studies that simulate real-world scenarios, enabling them to apply Python and business analytics techniques to solve complex problems and generate actionable recommendations.

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BA3039 DATA VISUALIZATION L T P C 3 0 0 3

Course objective:

- To enable students to effectively visualize and communicate data using a variety of tools and techniques, empowering them to convey insights in a visually compelling and influential manner.

**UNIT I DATA VISUALIZATION –A PRIMER OF BUSINESS INTELLIGENCE BUSINESS**

- Data Visualization Evolution and Characteristics – Importance of Data Visualization – Data Visualization Process - Data Visualization Tools and Software - Data Visualization Techniques – Best Practices in Data Visualization.

**UNIT II DATA VISUALIZATION USING TABLEAU – BASICS**

- Introduction to Tableau – Tableau interface & Architecture – Data connections & Data Sources – Preparation of Data – Exploring and analyzing data – Creating basic charts – Apply analytics to a worksheet – Creating Groups and Hierarchies - Mapping -Sharing Insights.

**UNIT III DATA VISUALIZATION USING TABLEAU**

- Advanced calculations - Parameters – Special Charts - Creation of Dashboards – Dashboard Actions -Story Boards Preparation - Sharing the work – Profile creation in Tableau Public.
UNIT IV REPORTS & DASHBOARDS USING POWER BI


UNIT V VISUALIZING THROUGH R , PYTHON & QLIKVIEW


COURSE OUTCOMES:
On completion of this course, students will;
1. Possess proficiency in creatively visualizing data, merging data analysis with artistic expression.
2. Demonstrate the ability to effectively communicate insights and information through engaging visual storytelling using data visualization techniques.
3. Be capable of creating immersive data visualizations that go beyond visuals, incorporating other senses to enhance understanding and engagement.
4. Showcase skills in building interactive data visualizations that enable users to explore and interact with data, facilitating deeper insights and personalized exploration.
5. Have the capability to apply data visualization techniques in unconventional domains, unlocking new perspectives and insights.

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REFERENCES
4. “Practical Tableau”, Ryan Sleeper, O'Reilly Media, 2018

BA3040 BUSINESS INTELLIGENCE, BIG DATA, CLOUD COMPUTING L T P C 3 0 0 3

OBJECTIVE:
- To familiarize the students on big data platform, applications on big data using Pig and Hive.

UNIT I BIG DATA FRAMEWORKS

UNIT II DATA MINING TOOLS, METHODS AND TECHNIQUES

UNIT III MODERN INFORMATION TECHNOLOGY AND ITS BUSINESS OPPORTUNITIES
Business intelligence software, BI on web, Ethical and legal limits, Industrial espionage, modern techniques of crypto analysis, managing and organizing for an effective BI Team.

UNIT IV CLOUD COMPUTING INTRODUCTION AND APPLICATIONS

UNIT V VISUALIZATION TECHNIQUES

TOTAL: 45 PERIODS

COURSE OUTCOMES:
On completion of the course, students will be able to
CO1: State the knowledge on big data platform, applications on big data using Pig and Hive.
CO2: Compare insights on data mining tools, methods and techniques.
CO3: Demonstrate knowledge on business intelligence software and modern techniques of crypto analysis.
CO4: Summarize cloud computing characteristics, challenges and applications.
CO5: Develop better understanding on predictive analytics and visual data analysis techniques.

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Reading List
2. Julian Ereth, H. Baars, Cloud-Based Business Intelligence and Analytics Applications - Business Value and Feasibility,2015

REFERENCES
2. Efraim Turban, Ramesh Sharda, Jay E. Aronson and David King, Business Intelligence,Prentice Hall, 2008.

BA3041 BLOCK CHAIN TECHNOLOGY

OBJECTIVE:
- To acquire knowledge of various techniques and various algorithms used in Blockchain.

UNIT I INTRODUCTION

UNIT II BLOCKCHAIN & APPLICATIONS
Introduction to Blockchain Technology, Gartner’s Hype Curve and Evolution of Blockchain, Genesis and Need for Blockchain, Key Characteristics and Structure of Blockchain, Different Types of Blockchains and Network Models, Mining and Consensus Mechanisms in Blockchain, Understanding the Bitcoin Whitepaper, Components of a Block and Forks (Soft & Hard Forks), Unspent Transaction Outputs (UTXOs) and Various Bitcoin Forks, Wallets, Transactions, and Public/Private Keys, Blockchain Applications: Internet of Things, Medical Record Management, Domain Name Service, and Future Implications of Blockchain.

UNIT III CRYPTOCURRENCY

UNIT IV ETHEREUM

UNIT V HYPERLEDGER FABRIC

TOTAL: 45 PERIODS

COURSE OUTCOMES:
Upon successful completion of this course, students will be able to:
CO1: Articulate the significance and fundamental principles of Blockchain technology.
CO2: Identify and relate key features, diverse platform types, and programming languages used in Blockchain technology, leading to a comprehensive understanding of cryptocurrency concepts.
CO3: Analyze and solve complex problems to gain deeper insights into cryptocurrency concepts.
CO4: Explain the fundamental design principles that govern Ethereum, a widely used Blockchain platform.

CO5: Develop a comprehensive understanding of the architecture and construct a model of Hyperledger Fabric, a prominent Blockchain framework.

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Reading List

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2. Imran Bashir, Mastering Blockchain, Packt Publishing, March 2017
3. Debajani Mohanty, BlockChain: From Concept to Execution, BPB Publications, 2nd edition, 2018
5. Andreas M. Antonopoulos, Gavin Wood, Mastering Ethereum: Building Smart Contracts and DApps, O'REILLY, 2018
6. Nitin Gaur, Luc Desrosiers, Venkatraman Ramakrishna, Petr Novotny, Dr. Salman A. Baset and Anthony O'Dowd, Hands-on Blockchain with Hyperledger, Packt Publishing, 2018

BA3042 DATA MINING FOR BUSINESS INTELLIGENCE

OBJECTIVE:
- This course helps students learn data mining techniques and how to apply them practically.

UNIT I INTRODUCTION
Data mining, Text mining, Web mining, Spatial mining, Process mining, Data ware house and datamarts.

UNIT II DATA MINING PROCESS
Datamining process – KDD, CRISP-DM, SEMMA and Domain-Specific, Classification and Prediction performance measures - RSME, MAD, MAP, MAPE, Confusion matrix, Receiver Operating Characteristic curve & AUC; Validation Techniques - hold-out, k-fold crossvalidation, LOOCV, random subsampling, and bootstrapping.
UNIT III PREDICTION TECHNIQUES
Data visualization, Time series – ARIMA, Winter Holts, Vector Autoregressive analysis, Multivariate regression analysis.

UNIT IV CLASSIFICATION AND CLUSTERING TECHNIQUES
Classification - Decision trees, k nearest neighbour, Logistic regression, Discriminant analysis; Clustering; Market basket analysis;

UNIT V MACHINE LEARNING AND AI
Genetic algorithms, Neural network, Fuzzy logic, Support Vector Machine, Optimization techniques – Ant Colony, Particle Swarm, DEA

TOTAL: 45 PERIODS

COURSE OUTCOMES:
1. Apply data mining techniques to analyze complex datasets and discover meaningful patterns and trends.
2. Select the appropriate data mining processes for specific tasks based on their requirements and challenges.
3. Evaluate the performance of data mining models using relevant evaluation measures to assess their accuracy and effectiveness.
4. Use prediction techniques to make accurate forecasts and predictions in different domains.
5. Apply classification techniques to accurately categorize and classify data, supporting decision-making processes

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BA3043 MULTIVARIATE DATA ANALYSIS

OBJECTIVES:
• Students could use advanced techniques to conduct thorough and insightful analysis, and interpret the results correctly with detailed and useful information for business and social problems.

UNIT I  INTRODUCTION
Introduction – Basic concepts – Sympson’s Paradox - Uni-variate, Bi-variate and Multi-variate techniques – Types of multivariate techniques – Classification of multivariate techniques – Guidelines for multivariate analysis and interpretation – Approaches to multivariate model building.

UNIT II  PREPARING FOR MULTIVARIATE ANALYSIS
UNIT III            MULTIPLE LINEAR REGRESSION ANALYSIS, FACTOR ANALYSIS  


UNIT IV            LATENT VARIABLE TECHNIQUES  

Confirmatory Factor Analysis, Structural equation modelling, Mediation models, Moderation models, Conditional processes, longitudinal studies, latent growth model, Bayesian inference

UNIT V             ADVANCED MULTIVARIATE TECHNIQUES  

Multiple Discriminant Analysis, Logistic Regression, ANOVA and MANOVA, Conjoint Analysis, multidimensional scaling, canonical correlation. TOTAL: 45 PERIODS

COURSE OUTCOMES:

CO1 Demonstrate understanding of the concepts and methods; know the exact scopes and possible limitations of each method; and show capability of using multivariate techniques to provide constructive guidance in decision making.

CO2 Understand and prepare data for the application of sophisticated multi variate techniques.

CO3 Understand, Apply and evaluate multiple regression, factor and cluster analysis.

CO4 Understand, Apply and evaluate latent variable techniques like SEM, CFA.

CO5 Understand, Apply and evaluate advanced multivariate techniques.

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REFERENCES:

7. Trevor F Cox, Introduction to Multivariate Data Analysis, 2009, Hodder Education
OBJECTIVE:

- To learn the fundamental principles and practices of managing projects.

UNIT I  INTRODUCTION TO PROJECT MANAGEMENT  9
Project Management – Definition – Goal - Lifecycles. Project Environments. Project Manager – Roles- Responsibilities and Selection. Definition and examples of projects, Key features of projects, Typical project problems, Human issues in Projects, Project identification and screening: (Brainstorming, Strength, and weaknesses in the system, environmental opportunities and threats, Identification and screening) – Project Appraisal and Selection

UNIT II  SCOPE AND TIME MANAGEMENT  9

UNIT III  RESOURCE AND COST MANAGEMENT  9

UNIT IV  PROJECT ORGANISATION, CONFLICT AND MANAGEMENT  9

UNIT V  PERFORMANCE MANAGEMENT  9
Project Integration - Progress and Performance measurement and evaluation – Project monitoring information system, developing a status report and other control issues - Project audit and closure – audit process, project closure, team, team member and project manager evaluations - International Projects – environmental factors, cross-cultural considerations, selection and training for international projects - Future likely trends in Project management

TOTAL: 45 PERIODS

COURSE OUTCOMES:
On completion of the course, students will be able to

- Relate to the roles and responsibilities of a project manager, and identify, screen and appraise projects
- Define project elements, develop plan for projects and estimate project completion.
- Understand, apply techniques to Schedule and allocate resources to projects and estimate completion
- Understand, Compare and Choose organization for projects, resolve conflicts and mitigate risks in projects
- Understand project integration, analyze project performance and appraise international projects
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READING LIST

2. Judy Payne, Steve Simister, Ellen J. Roden, Managing Knowledge in Project Environments, Routledge, 2019
4. Project Management Journal, Wiley Online Library

REFERENCES:


BA3045 TOTAL QUALITY MANAGEMENT L T P C

OBJECTIVE:

- To learn the various principles and practices of Quality Management

UNIT I INTRODUCTION


UNIT II QUALITY MANAGEMENT PHILOSOPHIES AND PRINCIPLES


UNIT III STATISTICAL PROCESS CONTROL

UNIT IV QUALITY TOOLS AND TECHNIQUES


UNIT V QUALITY MANAGEMENT SYSTEMS


TOTAL: 45 PERIODS

COURSE OUTCOMES:

On completion of the course, students will be able to

- Define Total Quality, Understand the evolution of Quality and prioritize customers’ requirements
- Explain, analyze and adapt the principles and philosophies of quality management
- Illustrate and apply statistical process control, process capability and reliability concepts to enhance quality and build a TPM system.
- Understand and apply the different quality tools and construct house of quality Matrix by mapping customers and technical requirements
- Understand, examine and devise quality management systems and evaluate and select suppliers

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READING LIST:

1. The TQM Journal, Emerald Insight
3. Indian standard – quality management systems – Guidelines for performance improvement (Fifth Revision), Bureau of Indian standards, New Delhi.

REFERENCES:

OBJECTIVE:
- To learn the need and importance of logistics in product flow.

UNIT I INTRODUCTION

UNIT II DISTRIBUTION CHANNELS AND OUTSOURCING LOGISTICS
Distribution channel structure - channel members, channel strategy, role of logistics and support in distribution channels. Logistics requirements of channel members. Logistics outsourcing – catalysts, benefits, value proposition. 3PL, 4PL, 5PL, 6PL; Selection of service provider.

UNIT III TRANSPORTATION AND PACKAGING

UNIT IV PERFORMANCE MEASUREMENT AND COSTS

UNIT V CURRENT TRENDS

TOTAL: 45 PERIODS

COURSE OUTCOMES:
On completion of the course, students will be able to
- Understand, apply and assess the concepts of evolution and functions of logistics management.
- Relate, apply and evaluate the basic principles of logistics, warehousing and material handling.
- Illustrate, examine and improve the process of transportation, distribution, packaging etc.
- Classify, appraise and assess the knowledge on integrated logistics and linguistic information system.
- Find, Classify, Appraise on the various elements of logistics cost and need for integration in logistics facilities.
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READING LIST
2. Periodicals of Engineering and Natural Sciences
4. Advances in Logistics and Supply Chain Management, Springer

REFERENCES

BA3047 MATERIALS MANAGEMENT L T P C
3 0 0 3

OBJECTIVE
➢ To understand why materials management should be considered for profit in operations

UNIT I INTRODUCTION
9
Introduction to Materials Management, Operating environment - Production planning system - manufacturing planning and control system - manufacturing resource planning - enterprise resource planning - making the production plan - Master scheduling - Developing MPS.

UNIT II MATERIALS PLANNING
9

UNIT III INVENTORY MANAGEMENT
9

UNIT IV PURCHASING MANAGEMENT
9
UNIT V WAREHOUSE MANAGEMENT

Warehousing functions – types - Stores management-stores systems and procedures - incoming materials control-stores accounting and stock verification-Obsolete, surplus and scrap-value analysis-material handling-transportation and traffic management - operational efficiency-productivity-cost effectiveness-performance measurement

TOTAL: 45 PERIODS

COURSE OUTCOMES:
On completion of the course, students will be able to
- Understand and apply the basics of materials management and develop master production schedule
- Understand, apply and assess the requirement analysis for material planning
- Understand, apply, and evaluate models of inventory management
- Understaand and apply purchasing practices and select the right supplier
- Understand, analyze and build warehouse management systems

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READING LIST
1. International Journal of Purchasing and Materials Management - Science gate
2. Handbook of materials management – By Gopalakrishnan

REFERENCES:

BA3048 SERVICES OPERATIONS MANAGEMENT

OBJECTIVE:
- To help understand how service performance can be improved by studying services operations management

UNIT I INTRODUCTION
Services – Importance, role in economy, service sector – nature, growth. Nature of services distinctive characteristics, Service Package, Service classification, service-dominant logic, open-systems view. Service Strategy – Strategic service vision, competitive environment, generic strategies, winning customers; Role of information technology; stages in service firm competitiveness.
UNIT II  SERVICE DESIGN  9

UNIT III  SERVICE QUALITY  9
Service Quality- Dimensions, Service Quality Gap Model; Measuring Service Quality – SERVQUAL,Walk-through Audit, Quality service by design , Service Recovery, Service Guarantees -quality tools- benchmarking - Quality improvement programs. Process Improvement –productivity improvement - DEA

UNIT IV  SERVICE FACILITY  9

UNIT V  MANAGING CAPACITY AND DEMAND  9
Managing Demand – strategies; Managing capacity – basic strategies, supply management tactics,operations planning and control; Yield management; Inventory Management in Services- Retail Discounting Model, Newsvendor Model; Managing Waiting Lines –Queuing systems, psychology of waiting; Managing for growth- expansion strategies, franchising , globalization.

TOTAL: 45 PERIODS

COURSE OUTCOMES:
On completion of the course, students will be able to
CO1: Understand the nature of service operations, distinguish between goods and services, compare the difference service classification system develop service strategy
CO2: Understand and apply the new service development process, design and improve services by applying service blueprinting and service decoupling.
CO3: Understand, apply and assess the quality in service design and delivery
CO4: Understand, Apply and Adapt models to design service facility, determine facility location and layout and Route and schedule vehicles
CO5: Understand and apply demand and capacity management in services, Illustrate and apply yield management, manage inventory and queuing system and grow and sustain service business

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READING LIST:
1. Journal of Service Management, Emerald Insight

REFERENCES:

BA3049 SUPPLY CHAIN MANAGEMENT

OBJECTIVE:
- To help understand the importance of and major decisions in supply chain management for gaining competitive advantage.

UNIT I INTRODUCTION
Supply Chain – Fundamentals, Evolution, Role in Economy, Importance, Decision Phases, Enablers & Drivers of Supply Chain Performance; Supply chain strategy; Supply Chain Performance Measures.

UNIT II STRATEGIC SOURCING

UNIT II SUPPLY CHAIN NETWORK
Distribution Network Design – Role in supply chain, Influencing factors, design options, online sales and distribution network, Distribution Strategies; Network Design in supply chain – Role, influencing factors, framework for network design, Impact of uncertainty on Network Design.

UNIT III PLANNING DEMAND, INVENTORY AND SUPPLY
Managing supply chain cycle inventory and safety inventory - Uncertainty in the supply chain , Analyzing impact of supply chain redesign on the inventory, Risk Pooling, Managing inventory for short life-cycle products, multiple item -multiple location inventory management; Pricing and Revenue Management.

UNIT V SUPPLY CHAIN INNOVATIONS

TOTAL: 45 PERIODS

COURSE OUTCOME:
On completion of the course, students will be able to
CO1: Understanding of supply chain fundamentals, Illustrating and analyzing supply chains from strategic perspective and assess supply chain performance
CO2: Understanding the issues in sourcing decision and analyse and select suppliers
CO3: Understand and analyse issues related to material flow and design supply chain networks to enhance supply chain performance
CO4: Understand and analyse the nature of demand and supply and develop inventory system
CO5: Relate to innovations in supply chain, analyze and design sustainable supply chains.
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1. Supply chain management and advanced planning, Springer.

REFERENCES:

BA3050 PRODUCT DESIGN

OBJECTIVE:
- To understand the application of structured methods to develop a product

UNIT I PRODUCT DESIGN & DEVELOPMENT
Product design & development - characteristics, duration and cost, challenges; Development Process - Generic Process, Concept development, Adapting to product types; Product Planning - Process, Understanding customer need, Product Specification; Concept Generation Evaluation - decay curve, cost expenditure curve; Technology Life Cycle; Disruptive Technologies.

UNIT II PRODUCT CONCEPT
Concept Selection – Importance, Methodology, concept Screening, Concept Scoring, Concept Testing; Product Architecture - Definition, Modularity, implication, Establishment, Delayed Differentiation, Platform Planning.

UNIT III PRODUCT DATA MANAGEMENT
PDM - concept and benefits, functions, Product data and workflow, Product reliability, CIM data, Architecture of PDM systems, Product data interchange, Portal integration, PDM acquisition and implementation; Product Life Cycle management - strategy, Change management for PLM.

UNIT IV DESIGN TOOLS
Design Approaches - Industrial Design, Design for Manufacturing, Value Engineering, Ergonomics, Robust Design, Design for Excellence; Collaborative Product development-Prototyping, failure rate curve, product use testing-Product development economics, scoring model, financial analysis.

UNIT V PATENTS

TOTAL: 45 PERIODES
COURSE OUTCOMES:
On completion of the course, students will be able to
CO1: Understand, design and develop the new products and services
CO2: Understanding, apply and adapt product concept to build products
CO3: Define, Identify and Assess product data and manage the product life cycle
CO4: understand and apply design tools and evaluate product performance
CO5: Understand the concepts of intellectual property, analyze and construct product design for patenting

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REFERENCES:

BA3051 SUPPLY CHAIN ANALYTICS

OBJECTIVES:
- To understand and apply the advanced quantitative models and methods in logistics and supply chain management and the latest developments in the field.

UNIT I INTRODUCTION
Introduction to analytics – descriptive, predictive and prescriptive analytics, Data Driven Supply Chains – Basics, transforming supply chains, Barriers to implementation, Road Map.

UNIT II WAREHOUSING DECISIONS
Mathemathical Programming Models - P-Median Methods - Guided LP Approach - Balmer – Wolfe Method, Greedy Drop Heuristics, Dynamic Location Models, Space Determination and Layout Methods

UNIT III INVENTORY MANAGEMENT
Inventory aggregation Models, Dynamic Lot sizing Methods, Multi-Echelon Inventory models, Aggregate Inventory system and LIMIT, Risk Analysis in Supply Chain - Measuring transit risks, supply risks, delivering risks, Risk pooling strategies.
UNIT IV TRANSPORTATION NETWORK MODELS

UNIT V MULTI-CRITERIA DECISION MAKING MODELS
Analytic Hierarchy Process(AHP), Data Envelopment Analysis (DEA), Fuzzy Logic and Techniques, the analytical network process (ANP), TOPSIS-Application in SCM

TOTAL: 45 PERIODS

COURSE OUTCOMES:
On completion of the course, students will be able to
CO1: Understand, apply and analyse fundamentals of supply chain analytics
CO2: Understand, apply and design warehouse models to enhance supply chain performance.
CO3: Understand, analyse and adapt models in devising an inventory management system
CO4: Appreciate, apply and devise network models for transportation.
CO5: Understand and apply multi-criteria decision models in developing supply chain applications

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1. Journal of Management Analytics – Taylor and Francis Online

REFERENCES:
1. T. A. S. Vijayaraghavan, Supply Chain Analytics, Wiley, 2021