



You Choose, We Do It
St. JOSEPH'S COLLEGE OF ENGINEERING
(An Autonomous Institution)
St. Joseph's Group of Institutions
OMR, Chennai - 119.



AUTONOMOUS CURRICULUM AND SYLLABUS 2021

ADMITTED 2024-2026



You Choose, We Do It
St. JOSEPH'S COLLEGE OF ENGINEERING
(An Autonomous Institution)
St. Joseph's Group of Institutions
OMR, Chennai - 119.



FACULTY OF MANAGEMENT SCIENCES
MASTER OF BUSINESS ADMINISTRATION (2YEARS)
REGULATIONS – 2021
CHOICE BASED CREDIT SYSTEM

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

MBA programme curriculum is designed to prepare the post graduate students

- I. To have a thorough understanding of the core aspects of the business.
- II. To provide the learners with the management tools to identify, analyze and create business opportunities as well as solve business problems.
- III. To prepare them to have a holistic approach towards management functions.
- IV. To motivate them for continuous learning.
- V. To inspire and make them practice ethical standards in business.

PROGRAMME OUTCOMES (POs)

On successful completion of the program,

1. Ability to understand the principles and concepts in management.
2. Ability to apply knowledge of management theories and practices.
3. Ability to understand the situations, analyze and solve business problems.
4. Ability to communicate and negotiate effectively, to achieve organizational and individual goals.
5. Ability to work in teams to meet organizational goals.
6. Ability to exhibit leadership skills appropriate for managerial roles in organizations.
7. Ability to analyse global, economic, and ethical aspects of business.
8. Ability to pursue lifelong learning.

PROGRAMME SPECIFIC OUTCOMES (PSOs)

1. Ability to gain knowledge, skills and attitudes to become an effective manager.
2. Ability to provide socially acceptable technical solutions to complex managerial problems with the application of modern and appropriate techniques for sustainable development relevant to professional managerial practice.
3. Ability to apply the knowledge of ethical and management principles required to work in a team as well as to lead a team.

MAPPING OF PEOS WITH POS

| Programme Educational Objectives | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 |
|----------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| I | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 2 |
| II | 1 | 3 | 1 | 2 | 3 | 1 | 3 | 2 |
| II | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 |
| IV | 2 | 1 | 2 | 3 | 3 | 1 | 3 | 3 |
| V | 1 | 3 | 3 | 2 | 2 | 3 | 1 | 2 |

SEMESTER -I

| SL. NO. | COURSE CODE | COURSE TITLE | CATEGORY | L | T | P | C |
|-------------------|-------------|---|----------|-----------|----------|-----------|-----------|
| THEORY | | | | | | | |
| 1 | MA1171 | Statistics for Management | PCC | 3 | 0 | 0 | 3 |
| 2 | MB1101 | Management Concepts and Organizational Behavior | PCC | 3 | 0 | 0 | 3 |
| 3 | MB1102 | Managerial Economics | PCC | 3 | 0 | 0 | 3 |
| 4 | MB1103 | Accounting for Management | PCC | 3 | 0 | 0 | 3 |
| 5 | MB1104 | Legal Aspects of Business | PCC | 3 | 0 | 0 | 3 |
| 6 | MB1105 | Information Management | PCC | 3 | 0 | 0 | 3 |
| 7 | MB1106 | Research Methodology and IPR | PCC | 3 | 0 | 0 | 3 |
| PRACTICALS | | | | | | | |
| 8 | MB1107 | Seminar -1 Indian ethos and business ethics | EEC | 0 | 0 | 4 | 2 |
| 9 | MB1110 | Data Analysis (Laboratory) | PCC | 0 | 0 | 4 | 2 |
| 10 | MB1109 | Comprehensive Viva-I* | EEC | 0 | 0 | 0 | 1 |
| 11 | MB0101 | Personality Enrichment | VAC | 0 | 0 | 2 | 0 |
| TOTAL | | | | 21 | 0 | 10 | 26 |

* Comprehensive Viva will be conducted at the end of the semester which will cover all theory subjects of that Semester by faculty; no end semester examination is required.

SEMESTER II

| SL. NO. | COURSE CODE | COURSE TITLE | CATEGORY | L | T | P | C |
|---------------|-------------|-------------------------|----------|---|---|---|---|
| THEORY | | | | | | | |
| 1 | MB1201 | Quantitative Techniques | PCC | 3 | 0 | 0 | 3 |

| | | | | | | | |
|-------------------|--------|--|-----|-----------|----------|-----------|-----------|
| | | For Decision Making | | | | | |
| 2 | MB1202 | Financial Management | PCC | 3 | 0 | 0 | 3 |
| 3 | MB1203 | Human Resource Management | PCC | 3 | 0 | 0 | 3 |
| 4 | MB1204 | Operations Management | PCC | 3 | 0 | 0 | 3 |
| 5 | MB1205 | Marketing Management | PCC | 3 | 0 | 0 | 3 |
| 6 | MB1206 | Business Analytics | PCC | 3 | 0 | 0 | 3 |
| 7 | | Non-Functional Elective | OEC | 3 | 0 | 0 | 3 |
| PRACTICALS | | | | | | | |
| 8 | MB1207 | Seminar – II Pro-social Behaviour | EEC | 0 | 0 | 4 | 2 |
| 9 | MB1210 | Business Analytics & Modelling (Laboratory) | PCC | 0 | 0 | 4 | 2 |
| 10 | MB1209 | Comprehensive Viva-II* | EEC | 0 | 0 | 0 | 1 |
| 11 | MB0201 | Fundamentals of Capital Markets | VAC | 0 | 0 | 2 | 0 |
| TOTAL | | | | 21 | 0 | 10 | 26 |

NOTE: In the second Semester

- Students need to choose one elective from the Non-Functional stream.
- Summer internship–minimum of 4 weeks of internship. The internship report has to be submitted to the department within 4 weeks of the reopening date of the 3rd semester. The report should contain the Training undergone and duration (chronological diary) along with the skill acquired.
- Comprehensive Viva will be conducted at the end of the semester which will cover all theory subjects of that Semester by faculty, no end semester examination is required.

SEMESTER III

| SL. NO. | COURSE CODE | COURSE TITLE | CATEGORY | L | T | P | C |
|-------------------|-------------|---|----------|-----------|----------|----------|-----------|
| THEORY | | | | | | | |
| 1 | MB1301 | Strategic Management | PCC | 3 | 0 | 0 | 3 |
| 2 | MB1302 | International Business | PCC | 3 | 0 | 0 | 3 |
| 3 | | Elective I | PEC | 3 | 0 | 0 | 3 |
| 4 | | Elective II | PEC | 3 | 0 | 0 | 3 |
| 5 | | Elective III | PEC | 3 | 0 | 0 | 3 |
| 6 | | Elective IV | PEC | 3 | 0 | 0 | 3 |
| 7 | | Elective V | PEC | 3 | 0 | 0 | 3 |
| 8 | | Elective VI | PEC | 3 | 0 | 0 | 3 |
| PRACTICALS | | | | | | | |
| 9 | MB1312 | Professional Excellence (Laboratory) | EEC | 0 | 0 | 4 | 2 |
| 10 | MB1309 | Creativity and Innovation (Laboratory) | | | | | |
| 11 | MB1310 | Summer Internship | EEC | 0 | 0 | 4 | 2 |
| 12 | MB1311 | Comprehensive Viva–III* | EEC | 0 | 0 | 0 | 1 |
| TOTAL | | | | 24 | 0 | 8 | 29 |

NOTE:

- In the third semester Students need to choose three electives from 2 functional streams for Dual Specialization
- Students need to choose One Laboratory course.
- * Comprehensive Viva will be conducted at the end of 3rd semester which will cover all theory subjects of 3rd semester.

SEMESTER IV

| SL. NO. | COURSE CODE | COURSE TITLE | CATEGORY | L | T | P | C |
|-------------------|-------------|--------------|----------|----------|----------|-----------|-----------|
| PRACTICALS | | | | | | | |
| 1 | MB1401 | Project Work | EEC | 0 | 0 | 24 | 12 |
| TOTAL | | | | 0 | 0 | 24 | 12 |

TOTAL NO. OF CREDITS: 93**NON -FUNCTIONAL ELECTIVES**

| SL. NO. | COURSE CODE | COURSE TITLE | CATEGORY | L | T | P | C |
|---------------|-------------|--|----------|---|---|---|---|
| THEORY | | | | | | | |
| 1 | MB1211 | Entrepreneurship Development | PCC | 3 | 0 | 0 | 3 |
| 2 | MB1212 | Business Ethics and Corporate Governance | PCC | 3 | 0 | 0 | 3 |
| 3 | MB1213 | Event Management | PCC | 3 | 0 | 0 | 3 |
| 4 | MB1214 | Sustainability Management | PCC | 3 | 0 | 0 | 3 |
| 5 | MB1026 | R Programming | PCC | 3 | 0 | 0 | 3 |
| 6 | MB1034 | Quality Management | PCC | 3 | 0 | 0 | 3 |

FUNCTIONAL ELECTIVES

| SL. NO. | COURSE CODE | COURSE TITLE | CATEGORY | L | T | P | C |
|-----------------------------|-------------|--|----------|---|---|---|---|
| MARKETING MANAGEMENT | | | | | | | |
| 1 | MB1001 | Retail Marketing | PEC | 3 | 0 | 0 | 3 |
| 2 | MB1002 | Consumer Behavior | PEC | 3 | 0 | 0 | 3 |
| 3 | MB1004 | Services Marketing | PEC | 3 | 0 | 0 | 3 |
| 4 | MB1006 | Brand Management | PEC | 3 | 0 | 0 | 3 |
| 5 | MB1007 | Customer Relationship Management | PEC | 3 | 0 | 0 | 3 |
| 6 | MB1041 | Marketing Analytics | PEC | 3 | 0 | 0 | 3 |
| FINANCIAL MANAGEMENT | | | | | | | |
| 1 | MB1008 | Security Analysis and Portfolio Management | PEC | 3 | 0 | 0 | 3 |
| 2 | MB1009 | Financial Markets | PEC | 3 | 0 | 0 | 3 |

| | | | | | | | |
|----------------------------------|--------|---|-----|---|---|---|---|
| 3 | MB1010 | Banking and Financial Services | PEC | 3 | 0 | 0 | 3 |
| 4 | MB1011 | Financial Derivatives | PEC | 3 | 0 | 0 | 3 |
| 5 | MB1012 | Financial Modelling | PEC | 3 | 0 | 0 | 3 |
| 6 | MB1043 | Financial Analytics | PEC | 3 | 0 | 0 | 3 |
| HUMAN RESOURCE MANAGEMENT | | | | | | | |
| 1 | MB1015 | Strategic Human Resource Management | PEC | 3 | 0 | 0 | 3 |
| 2 | MB1018 | Organizational Design, Change and Development | PEC | 3 | 0 | 0 | 3 |
| 3 | MB1042 | Human Resource Analytics | PEC | 3 | 0 | 0 | 3 |
| 4 | MB1044 | Industrial Relations And Labour Legislations | PEC | 3 | 0 | 0 | 3 |
| 5 | MB1045 | Digital Human Resource Management | PEC | 3 | 0 | 0 | 3 |
| 6 | MB1046 | Talent Acquisition And Management | PEC | 3 | 0 | 0 | 3 |
| BUSINESS ANALYTICS | | | | | | | |
| 1 | MB1022 | Data Mining for Business Intelligence | PEC | 3 | 0 | 0 | 3 |
| 2 | MB1023 | Big Data Analytics | PEC | 3 | 0 | 0 | 3 |
| 3 | MB1025 | Deep Learning and Artificial intelligence | PEC | 3 | 0 | 0 | 3 |
| 4 | MB1027 | Multivariate Data Analysis | PEC | 3 | 0 | 0 | 3 |
| 5 | MB1040 | Social Media and Web Analytics | PEC | 3 | 0 | 0 | 3 |
| 6 | MB1047 | Business Analytics And Text Mining | PEC | 3 | 0 | 0 | 3 |
| OPERATIONS MANAGEMENT | | | | | | | |
| 1 | MB1028 | Logistics Management | PEC | 3 | 0 | 0 | 3 |
| 2 | MB1029 | Materials Management | PEC | 3 | 0 | 0 | 3 |
| 3 | MB1030 | Product Design | PEC | 3 | 0 | 0 | 3 |
| 4 | MB1031 | Project Management | PEC | 3 | 0 | 0 | 3 |
| 5 | MB1032 | Services Operations | PEC | 3 | 0 | 0 | 3 |
| 6 | MB1033 | Supply Chain Management | PEC | 3 | 0 | 0 | 3 |
| SYSTEMS MANAGEMENT | | | | | | | |
| 1 | MB1035 | E-Business | PEC | 3 | 0 | 0 | 3 |
| 2 | MB1036 | Enterprise Resource Planning | PEC | 3 | 0 | 0 | 3 |
| 3 | MB1037 | Software Project and Quality Management | PEC | 3 | 0 | 0 | 3 |
| 4 | MB1038 | Internet of Things | PEC | 3 | 0 | 0 | 3 |
| 5 | MB1039 | Advanced Database Management System | PEC | 3 | 0 | 0 | 3 |
| 6 | MB1048 | Data Mining For Business Analytics | PEC | 3 | 0 | 0 | 3 |

| | | | | | |
|---------------|----------------------------------|----------|----------|----------|----------|
| MA1171 | STATISTICS FOR MANAGEMENT | L | T | P | C |
| | | 3 | 0 | 0 | 3 |

OBJECTIVES

- To learn the applications of statistics in business decision making.

| | | |
|---|---|------------|
| UNIT I | PROBABILITY | 9 |
| Basic definitions and rules for probability, conditional probability independence of events, Baye’s theorem, and random variables, Probability distributions: Binomial, Poisson, Uniform and Normal distributions. | | CO1 |
| UNIT II | SAMPLING DISTRIBUTION AND ESTIMATION | 9 |
| Introduction to sampling distributions, sampling distribution of mean and proportion, application of central limit theorem, sampling techniques. Estimation: Point and Interval estimates for population parameters of large sample and small samples, determining the sample size. | | CO2 |
| UNIT III | TESTING OF HYPOTHESIS - PARAMETIRC TESTS | 9 |
| 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), F- test for two sample standard deviations. ANOVA one and two way. | | CO3 |
| UNIT IV | NON-PARAMETRIC TESTS | 9 |
| Chi-square tests for independence of attributes and goodness of fit. Sign test for paired data. Rank sum test. Kolmogorov-Smirnov – test for goodness of fit, comparing two populations. Mann –Whitney U test and Kruskal Wallis test. One sample run test. | | CO4 |
| UNIT V | CORRELATION, REGRESSION AND TIME SERIES ANALYSIS | 9 |
| Correlation analysis, estimation of regression line. Time series analysis: Variation in time series, trend analysis, cyclical variations, seasonal variations and irregular variations. | | CO5 |

TOTAL: 45 PERIODS

TEXT BOOKS

1. Richard I. Levin, David S. Rubin, Masood H. Siddiqui, Sanjay Rastogi, Statistics for Management, Pearson Education, 8th Edition,2017.
2. Prem S. Mann, Introductory Statistics, Wiley Publications, 9th Edition, 2015.
3. T N Srivastava and Shailaja Rego, Statistics for Management, Tata McGraw Hill, 3rd Edition 2017.

REFERENCE BOOKS

1. Ken Black, Applied Business Statistics, 7th Edition, Wiley India Edition, 2012.
2. David R. Anderson, Dennis J. Sweeney, Thomas A. Williams, Jeffrey D. Camm, James J. Cochran, Statistics for business and economics, 13th edition, Thomson (South – Western) Asia, Singapore,2016.
3. N. D. Vohra, Business Statistics, Tata McGraw Hill, 2017.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand and apply the concepts of probability distributions
- CO2 To apply and analyse sampling techniques for research

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 2 | 2 | 1 | - | - | - | 3 | 3 | 2 | - |
| CO2 | 3 | 2 | 2 | 1 | - | - | - | 3 | 3 | 2 | - |
| CO3 | 3 | 2 | 2 | 1 | - | - | - | 3 | 3 | 2 | - |
| CO4 | 3 | 2 | 2 | 1 | - | - | - | 3 | 3 | 2 | - |
| CO5 | 3 | 3 | 2 | 1 | - | - | - | 3 | 3 | 2 | - |

MB1102

MANAGERIAL ECONOMICS

L T P C
3 0 0 3

OBJECTIVES

- To introduce the concepts of scarcity and efficiency; to explain principles of micro economics relevant to managing an organization; to describe principles of macroeconomics to have the understanding of economic environment of business.

UNIT I INTRODUCTION

9

The themes of economics – scarcity and efficiency – three fundamental economic problems – society’s capability – Production possibility frontiers (PPF) – Productive efficiency Vs economic efficiency – economic growth & stability – Microeconomics and Macroeconomics – the role of markets and government – Positive Vs negative externalities.

CO1

UNIT II CONSUMER AND PRODUCER BEHAVIOUR

9

Market – Demand and Supply – Determinants – Market equilibrium – elasticity of demand and supply – consumer behaviour – consumer equilibrium – Approaches to consumer behaviour – Production – Short-run and long-run Production Function – Returns to scale – economies Vs diseconomies of scale – Analysis of cost – Short-run and long-run cost function – Relation between Production and cost function.

CO2

UNIT III PRODUCT AND FACTOR MARKET

9

Product market – perfect and imperfect market – different market structures – Firm’s equilibrium and supply – Market efficiency – Economic costs of imperfect competition –factor market – Land, Labour and capital – Demand and supply – determination of factor price – Interaction of product and factor market – General equilibrium and efficiency of competitive markets.

CO3

UNIT IV PERFORMANCE OF AN ECONOMY – MACRO ECONOMICS

9

Macro – economic aggregates – circular flow of macroeconomic activity –National income determination – Aggregate demand and supply – Macroeconomic equilibrium – Components of aggregate demand and national income – multiplier effect – Demand side management – Fiscal policy in theory.

CO4

UNIT V AGGREGATE SUPPLY AND THE ROLE OF MONEY

9

Short – run and Long – run supply curve – Unemployment and its impact – Okun’s law – Inflation and the impact – reasons for inflation – Demand Vs Supply factors –Inflation Vs Unemployment tradeoff – Phillips’s curve – short-run and long-run – Supply side Policy and management - Money market - Demand and supply of money – money - market equilibrium and national income – the role of monetary policy.

CO5

TOTAL: 45 PERIODS

TEXT BOOKS

1. Paul A. Samuelson, William D. Nordhaus, Sudip Chaudhuri and Anindya Sen, Economics, 19th edition, Tata McGraw Hill, New Delhi, 2011
2. N. Gregory Mankiw, Principles of Economics, 8th edition, Thomson learning, New Delhi, 2017.

REFERENCE BOOKS

1. William Boyes and Michael Melvin, Textbook of economics, Biztantra, 7th edition 2008.
2. Richard Lipsey and Ale Chrystal, Economics, 13th edition, Oxford, University Press, New Delhi, 2015.
3. Karl E. Case and Ray C. Fair, Principles of Economics, 12th edition, Pearson, Education Asia, New Delhi, 2017.
4. Panneer selvam. R, Engineering Economics, 2nd Edition, PHIL earning, 2014.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the utility concepts of Micro and Macro Economics
- CO2 To analyse the consumer and producer behaviours; production function and cost analysis
- CO3 To apply, how factors of production can be used optimally to produce product and service and; to analyze market structure.
- CO4 To evaluate the performance of an macro-economic activity and macro-economic environment
- CO5 To understand economic policies that regulate economic variables

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 2 | 2 | 1 | - | - | 3 | 3 | 3 | 2 | - |
| CO2 | 3 | 3 | 2 | 1 | - | - | 3 | 3 | 3 | 2 | - |
| CO3 | 3 | 2 | 2 | 1 | - | - | 3 | 3 | 3 | 2 | - |
| CO4 | 3 | 2 | 2 | 1 | - | - | 3 | 3 | 3 | 2 | - |
| CO5 | 3 | 3 | 2 | 1 | - | - | 3 | 3 | 3 | 2 | - |

MB1103

ACCOUNTING FOR MANAGEMENT

L T P C
3 0 0 3

OBJECTIVES

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

UNIT I FINANCIAL ACCOUNTING

Introduction to Financial, Cost and Management Accounting – Generally accepted accounting principles – Double Entry System – Preparation of Journal, Ledger and Trial **9 CO1**

| | |
|--|------------|
| Balance Preparation of Final Accounts: Trading, Profit and Loss Account and Balance Sheet – Reading the financial statements. | |
| UNIT II ANALYSIS OF FINANCIAL STATEMENTS | 9 |
| Financial ratio analysis, Interpretation of ratio for financial decisions – DuPont Ratios – Comparative statements – common size statements. Cash flow (as per Accounting Standard 3) and Fund’s flow statement analysis –Trend Analysis. | CO2 |
| UNIT III COST ACCOUNTING | 9 |
| Cost Accounts – Classification of costs – Job cost sheet – Job order costing – Process costing (excluding Interdepartmental Transfers and equivalent production) – Joint and By Product Costing – Activity Based Costing, Target Costing. | CO3 |
| UNIT IV MARGINAL COSTING | 9 |
| Marginal Costing and profit planning – Cost, Volume, Profit Analysis – Break Even Analysis – Decision making problems -Make or Buy decisions -Determination of sales mix - Exploring new markets - Add or drop products -Expand or contract. | CO4 |
| UNIT V BUDGETING AND VARIANCE ANALYSIS | 9 |
| Budgetary Control – Sales, Production, Cash flow, fixed and flexible budget – Standard costing and Variance Analysis – (excluding overhead costing) - Accounting standards and accounting disclosure practices in India. | CO5 |

TOTAL: 45 PERIODS

TEXT BOOKS

1. M. Y. Khan & P. K. Jain, Management Accounting, Tata McGraw Hill, 8th edition, 2018.
2. T. S. Reddy & A. Murthy, Financial Accounting, Margham Publications, 2014
3. M. Y. Khan & P. K. Jain, Management Accounting, Tata McGraw Hill, 8th edition, 2018.

REFERENCE BOOKS

1. Jan Williams, Susan Haka, Mark Sbettner, Joseph V Carcello, Financial and Managerial Accounting The basis for business Decisions, 18th edition, Tata McGraw Hill Publishers, 2017
2. Charles T. Horngren, Gary L. Sundem, David Burgstahler, Jeff Schatzberg, Introduction to Management Accounting, PHIL earning, 2014, 16th edition.
3. Earl K. Stice & James D. Stice, Financial Accounting, Reporting and Analysis, 8th edition, Cengage Learning, 2015.
4. N. M. Singhvi, Ruzbeh J. Bodhanwala, Management Accounting–Text and cases, 3rd edition PHIL earning, 2018
5. Ashish K. Battacharya, Introduction to Financial Statement Analysis, Elsevier, 2012.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 Ability to remember and understand the financial accounting concepts.
- CO2 Ability to understand the financial statement analysis.
- CO3 To apply and analyse the cost accounting techniques
- CO4 To apply the marginal costing and profit planning techniques.
- CO5 To analyse and evaluate the cost and management accounting techniques like budgeting, standard costing and variance analysis.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 3 | 2 | 2 | - | - | - | 3 | 3 | 2 | - |
| CO2 | 3 | 3 | 2 | 2 | - | - | - | 3 | 3 | 2 | - |
| CO3 | 3 | 2 | 2 | 2 | - | - | - | 3 | 3 | 2 | - |
| CO4 | 3 | 2 | 2 | 2 | - | - | - | 3 | 3 | 2 | - |
| CO5 | 3 | 3 | 2 | 2 | - | - | - | 3 | 3 | 2 | - |

MB1104

LEGAL ASPECTS OF BUSINESS

L T P C
3 0 0 3

OBJECTIVES

- The objective of this course is to familiarize the students with various laws that will help them to refine their understanding of how law affects the different aspects of business.

UNIT I COMMERCIAL LAW

9

THE INDIAN CONTRACT ACT 1872: Definition of contract, essentials elements and types of a contract, Formation of a contract, performance of contracts, breach of contract and its remedies, Quasi contracts – Contract of Agency: Nature of agency, Creation and types of agents, Authority and liability of Agent and principal: Rights and duties of principal and agents, termination of agency.

THE SALE OF GOODS ACT 1930: Nature of Sales contract, Documents of title, risk of loss, Guarantees and Warranties, performance of sales contracts, conditional sales and rights of an unpaid seller-

CO1

NEGOTIABLE INSTRUMENTS ACT 1881: Nature and requisites of negotiable instruments. Types of negotiable instruments, liability of parties, holder in due course, special rules for Cheque and drafts, discharge of negotiable instruments.

UNIT II COMPANY LAW

9

COMPANY ACT 1956&2013 Major principles – Nature and types of companies, Formation, Memorandum and Articles of Association, Prospectus, Power, duties and liabilities of Directors, winding up of companies, Corporate Governance.

CO2

UNIT III INDUSTRIAL LAW

9

An Overview of Factories Act – Payment of Wages Act – Payment of Bonus Act – Industrial Disputes Act.

CO3

UNIT IV CORPORATE TAX & GST

9

Corporate Tax Planning, Corporate Taxes and Overview of Latest Developments in Indirect tax Laws relating to GST: An introduction including constitutional aspects, Levy and collection of CGST & IGST, Basic concept of time and value of supply, Input tax credit, Computation of GST Liability, Registration, Tax Invoice, Credit & Debit Notes, Electronic Way bill, Returns, Payment of taxes including Reverse Charge.

CO4

UNIT V CONSUMER PROTECTION ACT AND INTRODUCTION OF CYBER LAWS

9

Consumer Protection Act – Consumer rights, Procedures for Consumer grievances redressal, Types of consumer Redressal Machineries and Forums - Cyber-crimes, IT Act 2000 and 2002, CO5 Cyber Laws.

TOTAL: 45 PERIODS

TEXT BOOKS

1. N. D. Kapoor, Elements of Mercantile Law, Sultan Chand and Company, India, 2017.
2. P. K. Goel, Business Law for Managers, Biztantatara Publishers, India, 2017.
3. Akhileshwar Pathak, Legal Aspects of Business, Tata McGraw Hill, 6th Edition, 2018.

REFERENCE BOOKS

1. Ravinder Kumar, Legal Aspects of Business, New Delhi: Cengage Learning, 4th edition, 2016.
2. Sinha P. K, Dr. Vinod Singhania, Text Book of Indirect Tax, Taxman Publication, New Delhi.
3. Taxmann, GST Manual with GST Law Guide & Digest of Landmark Rulings, 11th Edition, 2019
4. P. P. S. Gogna, Mercantile Law, S. Chand &Co. Ltd., India, Fourth Edition, 2015.
5. Richard Stim, Intellectual Property - Copy Rights, Trade Marks, and Patents, Cengage Learning, 15th edition 2017.
6. Daniel Albuquerque, Legal Aspect of Business, Oxford, 2nd edition, 2017
7. Ravinder Kumar, Legal Aspect of Business, Cengage Learning, 4th Edition 2016.
8. V. S. Datey, GST Ready Reckoner, 9th edition, 2019

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the provisions of the law of contract, sale of goods act and negotiable instruments act
- CO2 To remember the various forms of companies' origin and winding up procedures with the elements of corporate governance.
- CO3 To understand the various provisions of labor law and industrial environment
- CO4 Ability to understand the fundamental concepts of corporate tax and GST
- CO5 To analyze the various forms of consumer complaints, and cybercrimes and use the legal provisions for redressal and avoid it.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 1 | 2 | 2 | - | - | 1 | 3 | 3 | 2 | 1 |
| CO2 | 3 | 1 | 2 | 2 | - | - | 1 | 3 | 3 | 2 | 1 |
| CO3 | 3 | 1 | 2 | 2 | - | - | 1 | 3 | 3 | 2 | 1 |
| CO4 | 3 | 1 | 2 | 2 | - | - | 1 | 3 | 3 | 2 | 1 |
| CO5 | 3 | 1 | 2 | 2 | - | - | 1 | 3 | 3 | 2 | 1 |

MB1105

INFORMATION MANAGEMENT

L T P C
3 0 0 3

OBJECTIVES

- To understand the importance of information in business

- To know about the recent information systems and technologies.

| | | |
|-----------------|---|------------|
| UNIT I | INTRODUCTION | 9 |
| | Data, Information, Information System, evolution, types based on functions and hierarchy, Enterprise and functional information systems. | CO1 |
| UNIT II | SYSTEM ANALYSIS AND DESIGN | 10 |
| | System development methodologies, Systems Analysis and Design, Data flow Diagram (DFD), Decision table, Entity Relationship (ER), Object Oriented Analysis and Design (OOAD), UML diagram. | CO2 |
| UNIT III | INTRODUCTION TO DATA BASE MANAGEMENT SYSTEMS | 8 |
| | DBMS – types and evolution, RDBMS, OODBMS, RODBMS, Data warehousing, Data Mart, Data mining. | CO3 |
| UNIT IV | INTEGRATED SYSTEMS, SECURITY AND CONTROL | 9 |
| | Knowledge based decision support systems, integrating social media and mobile technologies in Information system, Security, IS Vulnerability, Disaster Management, Computer Crimes, Securing the Web. | CO4 |
| UNIT V | NEW IT INITIATIVES | 9 |
| | Introduction to Deep learning, Big data, Pervasive Computing, Cloud computing, Advancements in AI, IoT, Block chain, Crypto currency, Quantum computing. | CO5 |

TOTAL: 45 PERIODS

TEXT BOOKS

1. Rahul de, MIS in Business, Government and Society, Wiley India Pvt Ltd, 2012
2. Gordon Davis, Management Information System : Conceptual Foundations, Structure and Development, Tata McGraw Hill, 21st Reprint 2008.
3. Haag, Cummings and Mc Cubbrey, Management Information Systems for the Information Age, McGraw Hill, 2005. 9th edition, 2013.

REFERENCE BOOKS

1. Robert Schultheis and Mary Sumner, Management Information Systems –The Manager’s View, Tata McGraw Hill, 2008.
2. Kenneth C. Laudon and Jane P Laudon, Management Information Systems –Managing the Digital Firm, 15th edition, 2018.
3. R Database Management Systems, 3rd Edition, PHI Learning, 2018

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the basics of data and information system.
 CO2 To apply the system development methodologies.
 CO3 To analyse how database management system and its types helps to the information management.
 CO4 To evaluate the various technologies in information system and its security.
 CO5 To gain knowledge on effective applications of information systems in business.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|------------|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 1 | 2 | 2 | 1 | 1 | 1 | 3 | 3 | 3 | 1 |

| | | | | | | | | | | | |
|------------|---|---|---|---|---|---|---|---|---|---|---|
| CO2 | 3 | 1 | 2 | 2 | 1 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO3 | 3 | 1 | 2 | 2 | 1 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO4 | 3 | 1 | 2 | 2 | 1 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO5 | 3 | 1 | 2 | 2 | 1 | 1 | 1 | 3 | 3 | 3 | 1 |

MB1106 RESEARCH METHODOLOGY AND IPR L T P C
3 0 0 3

OBJECTIVES

- To make the students understand the principles of scientific methodology in research enquiry, develop analytical skills of research, to prepare scientific reports and help them to get patent and copy right of their research work.

UNIT I INTRODUCTION 9

Business Research – Definition and Significance – the research process – Types of Research – Exploratory and causal Research – Theoretical and empirical Research – Cross –Sectional and time – series Research – Research questions / Problems – Research objectives – Research hypotheses – characteristics – Research in an evolutionary perspective – the role of theory in research. **CO1**

UNIT II RESEARCH DESIGN AND MEASUREMENT 9

Research design – Definition – types of research design – exploratory and causal research design – Descriptive and experimental design – different types of experimental design – Validity of findings – internal and external validity – Variables in Research – Measurement and scaling – Different scales – Construction of instrument – Validity and Reliability of instrument. **CO2**

UNIT III DATA COLLECTION AND SAMPLING DESIGN 9

Types of data – Primary Vs Secondary data – Methods of primary data collection – Survey Vs Observation – Experiments – Construction of questionnaire and instrument – Validation of questionnaire – Sampling plan – Sample size – determinants optimal sample size – sampling techniques – Probability Vs Non–probability sampling methods. **CO3**

UNIT IV DATA ANALYSIS AND REPORT WRITING 9

Data Preparation – editing – coding –data entry – data analyses – parametric and non-parametric techniques - applications of bivariate and multivariate statistical techniques. Research report – contents of report – executive summary – types of report - ethics in research. **CO4**

UNIT V INTELLECTUAL PROPERTY RIGHTS ACT 9

IPR – meaning - objectives - types of IPR – Patent, Copy right, Trademark – Procedure for registration – offence & penalties. **CO5**

TOTAL: 45 PERIODS

TEXT BOOKS

- Donald R. Cooper, Pamela S. Schindler and J K Sharma, Business Research methods, 12th Edition, Tata Mc Graw Hill, New Delhi, 2018.
- Alan Bryman and Emma Bell, Business Research methods, 5th Edition, Oxford University Press, New Delhi, 2018.
- William G Zikmund, Barry J Babin, Jon C. Carr, Atanu Adhikari, Mitch Griffin, Business Research methods, A South Asian Perspective, 8th Edition, Cengage Learning, New Delhi, 2016.

4. V K Ahuja, Law Relating to Intellectual Property Rights 3rd edition 2017, Publisher: LexisNexis, Universal bookstores, India.
5. Anil Kumar H S, Ramakrishna B, Fundamentals of Intellectual Property Rights, 2017 Notion press

REFERENCE BOOKS

1. Wilson, J (2013), Essential of Research Methods, SAGE Publication.
2. Lee, Nick & Lings, Ian (2009), Doing Business Research, Sage South Asia.
3. Mark Saunders, Lewis, P. & Thornhill, A. (2015), Research Methods for Business Students, Pearson Education,
4. Nithyananda, K V. (2019). Intellectual Property Rights: Protection and Management. India, IN: Cengage Learning India Private Limited.
5. Neeraj, P., & Khusdeep, D. (2014). Intellectual Property Rights. India, IN: PHI learning Private Limited.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the types and process of research and to create the research objectives and hypothesis.
- CO2 To apply the types of research design, measurement and scaling; to create the instrument and evaluate the validity and reliability of instrument.
- CO3 To determine the types of data, sample size; applying the probability vs non-probability sampling techniques
- CO4 To analyse data using parametric and non-parametric techniques; prepare the research reports.
- CO5 To understand IPR and to get patent and copy right for research work

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 3 | 3 | 2 | 1 | 2 | - | 3 | 3 | 3 | - |
| CO2 | 3 | 3 | 3 | 2 | 1 | 2 | - | 3 | 3 | 3 | 1 |
| CO3 | 3 | 3 | 3 | 2 | 1 | 2 | - | 3 | 3 | 3 | - |
| CO4 | 3 | 3 | 3 | 2 | 1 | 2 | - | 3 | 3 | 3 | - |
| CO5 | 3 | 3 | 3 | 2 | 1 | 2 | - | 3 | 3 | 3 | 3 |

SEMINAR - 1

MB1107

INDIAN ETHOS AND BUSINESS ETHICS

L T P C
0 0 4 2

OBJECTIVES

- To enable the learners in understanding of the basic concepts of Indian Ethos and familiarize about ethical behaviour and value systems at work.
- To enable the learners to have exposure on business ethics and ethical business perspectives.

NOTE:

- The following is the list of topics suggested for preparation and presentation by students twice during the semester.
- This will be evaluated by the faculty member(s) handling the course and the final marks are consolidated at the end of the semester. No end semester examination is required for this course.

1. Indian Ethos and Personality Development
2. Work ethos and values for Professional Managers
3. Indian Values, Value Systems and Wisdom for modern managers
4. Management Lessons from the Vedas, Puranas, Indian religions
5. Spirituality in Business Management
6. Individual Culture and Ethics
7. Ethical codes of conduct and value Systems
8. Loyalty and Ethical Behaviour
9. Ethical business issues and solutions
10. Social Responsibilities of Business

TOTAL: 60 PERIODS

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the basic concepts of Indian Ethos
CO2 To apply work ethos and values based on cultural differences
CO3 To determine the basic sources of Indian ethos and values
CO4 To apply the Indian Systems of learning in work place
CO5 To understand the Indian Heritage and its application in CSR

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 2 | 2 | - |
| CO2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 2 | 2 | - |
| CO3 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 2 | 2 | - |
| CO4 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 2 | 2 | - |
| CO5 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 2 | 2 | - |

OBJECTIVES

- To understand and practise spread sheet and SPSS.

Exercises

- Basic excel
 - Spread sheet Formatting – Functions - Charts & Graphics - Pivot Table & Pivot Charts
- Descriptive Statistics
 - Frequency Distribution, Measures of Central Tendency, and Measures of Variability.
- Non-parametric Tests
 - Mann-Whitney U Test
 - Wilcoxon Signed Rank Test
 - The Kruskal-Wallis Test
- Parametric Tests
 - t-test
 - ANOVA
 - Linear regression
 - Pearson rank correlation.

TOTAL : 60 PERIODS**TEXT BOOKS**

- David R. Anderson, et al, "An Introduction to Management Sciences: Quantitative approaches to Decision Making", (13th edition) South-Western College Pub, 2011.
- William J. Stevenson, Ceyhun Ozgur, "Introduction to Management Science with Spread sheet", Tata McGraw Hill, 2009.
- Hansa Lysander Manohar, " Data Analysis and Business Modelling using Microsoft Excel" PHI, 2017.

REFERENCE BOOKS

- David M. Levine etal, "Statistics for Managers using MS - Excel" (6th Edition) Pearson, 2010.
- Minnick, C. Web Kit for Dummies. John Wiley & Sons,(2012).

COURSE OUTCOMES**Upon completion of the course, students will be able to**

- CO1 To understand and use Spread sheet
- CO2 To understand about the nature of data and conducting hypothesis testing using various data analysis techniques
- CO3 To apply data analytical tools to identify the relationship between variables

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | - | 1 | 3 | - | - | - | - | - | 1 | - | - |

1. Bernard W. Taylor III, Introduction to Management Science, 9th Edition, Pearson Ed.
2. Frederick & Mark Hillier, Introduction to Management Science– A Modeling and case studies approach with spread sheets, Tata Mcgraw Hill,2010.
3. Nagraj B, Barry Rand Ralph M. S Jr., Managerial Decision Modelling with Spreads sheets, Second Edition, 2007, Pearson Education

COURSE OUTCOMES

Upon completion of the course, students will be able to

- To understand the fundamentals of linear programming and applying in real world situations
- CO1 for decision making
- To apply the transportation and assignment models and to analyze the optimal allocation for
- CO2 Minimization of Cost
- To apply the strategies in competitive real-world phenomena using concepts from game
- CO3 theory.
- CO4 To analyze the efficiency of job sequencing models to minimize production time and costs
- To apply and analyze the appropriate queuing models and optimal replacement period/policy
- CO5 for a given item/equipment/machine.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | - | 3 | - | - | - | - | 3 | 3 | 3 | - |
| CO2 | 3 | - | 3 | - | - | - | - | 3 | 3 | 3 | - |
| CO3 | 3 | - | 3 | - | - | - | - | 3 | 3 | 3 | - |
| CO4 | 3 | - | 3 | - | - | - | - | 3 | 3 | 3 | - |
| CO5 | 3 | - | 3 | - | - | - | - | 3 | 3 | 3 | - |

MB1202

FINANCIAL MANAGEMENT

L P T C
3 0 0 3

OBJECTIVES

- To learn the fundamentals of Finance
- To understand the importance of Investment Decisions
- To understand the fundamentals of Financing and Dividend Decision
- To understand the role of working capital management
- To understand the long-term sources of finance

UNIT I FOUNDATIONS OF FINANCE

9

Introduction to finance – Financial Management – Nature, scope and functions of Finance, organization of financial functions, objectives of Financial management, Major financial decisions – Time value of money – features and valuation of shares and bonds – Concept of risk and return – single asset and of a portfolio.

CO1

| | | |
|--|--|------------|
| UNIT II | INVESTMENT DECISIONS | 9 |
| Capital Budgeting: Principles and techniques – Nature of capital budgeting – Identifying relevant cash flows - Evaluation Techniques: Payback, Accounting rate of return, Net Present Value, Internal Rate of Return, Profitability Index - Comparison of DCF techniques -Concept and measurement of cost of capital – Specific cost and overall cost of capital. | | |
| | | CO2 |
| UNIT III | FINANCING AND DIVIDEND DECISION | 9 |
| Leverages – Operating and Financial leverage – measurement of leverages – degree of Operating & Financial leverage – Combined leverage, EBIT– EPS Analysis – Indifference point. Capital structure – Theories – Net Income Approach, Net Operating Income Approach, MM Approach – Determinants of Capital structure. Dividend decision – Issues in dividend decisions, Importance, Relevance & Irrelevance theories - Walter’s – Model, Gordon’s model and MM model – Factors determining dividend policy – Types of dividend policies– forms of dividend. | | |
| | | CO3 |
| UNIT IV | WORKING CAPITAL MANAGEMENT | 9 |
| Principles of working capital: Concepts, Needs, Determinants, issues and estimation of working capital – Receivables Management - Inventory management – Cash management – Working capital finance: Commercial paper, Company deposit, Trade credit, Bank finance. | | |
| | | CO4 |
| UNIT V | LONG TERM SOURCES OF FINANCE | 9 |
| Indian capital market – New issues market – Secondary market – Long-term finance: Shares, debentures and term loans, lease, hire purchase, venture capital financing, Private Equity. | | |
| | | CO5 |

TOTAL: 45 PERIODS

TEXT BOOKS

1. IM. Pandey Financial Management, Vikas Publishing House Pvt. Ltd., 11th edition, 2018
2. M.Y. Khan and P.K. Jain Financial management, Text, Problems and cases Tata McGraw Hill, 8th edition, 2017.
3. Aswath Damodaran, Corporate Finance Theory and practice, John Wiley & Sons, 2011.

REFERENCE BOOKS

1. James C. Vanhorne –Fundamentals of Financial Management– PHI Learning, 13th Edition, 2014.
2. Brigham, Ehrhardt, Financial Management Theory and Practice, 14th edition, Cengage Learning 2015.
3. Prasanna Chandra, Financial Management, 9th edition, Tata McGraw Hill, 2017.
4. Srivatsava, Mishra, Financial Management, Oxford University Press, 2012.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To remember the basic concepts of financial management such as decisions and functions of financial management
- CO2 To understand the long term investment techniques like payback period, accounting rate of return, net present value.
- CO3 To apply the concepts of dividend and examine impact of dividend policy of a firm.
- CO4 To analyse the different forms components of working capital such as receivables, payables, inventory etc.
- CO5 To evaluate getting exposure of long term sources of fund namely debenture, term loans, private

equity, venture capital etc.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 3 | 3 | 3 | - | - | - | 3 | 3 | - | - |
| CO2 | 3 | 3 | 3 | 3 | - | - | - | 3 | 3 | - | - |
| CO3 | 3 | 3 | 3 | 3 | - | - | - | 3 | 3 | - | - |
| CO4 | 3 | 3 | 3 | 3 | - | - | - | 3 | 3 | - | - |
| CO5 | 3 | 3 | 3 | 3 | - | - | - | 3 | 3 | - | - |

MB1203

HUMAN RESOURCE MANAGEMENT

L P T C
3 0 0 3

OBJECTIVES

- To learn the basic concepts of Human Resource Management
- To understand the importance of Human Resource Planning and Recruitment
- To understand the fundamentals and importance of Training and Development
- To understand the intricacies in Employee Engagement
- To understand the importance of Performance Evaluation and Control

UNIT I PERSPECTIVES IN HUMAN RESOURCE MANAGEMENT 9

Evolution of human resource management – The importance of the human capital – Role of human resource manager – Challenges for human resource managers - trends in Human resource policies – Computer applications in human resource management – Human resource accounting and audit. **CO1**

UNIT II HUMAN RESOURCE PLANNING AND RECRUITMENT 9

Importance of Human Resource Planning – Forecasting human resource requirement – matching supply and demand – Internal and External sources – Organizational Attraction - Recruitment, Selection, Induction and Socialization - Theories, Methods and Process. **CO2**

UNIT III TRAINING AND DEVELOPMENT 9

Types of training methods – purpose – benefits - resistance. Executive development programme – Common practices – Benefits – Self-development – Knowledge management. **CO3**

UNIT IV EMPLOYEE ENGAGEMENT 9

Compensation plan – Reward – Motivation – Application of theories of motivation – Career management – Mentoring - Development of mentor – Protégé relationships- Job Satisfaction, Employee Engagement, Organizational Citizenship Behavior: Theories, Models. **CO4**

UNIT V PERFORMANCE EVALUATION AND CONTROL 9

Method of performance evaluation – Feedback – Industry practices. Promotion, Demotion, Transfer and Separation – Implication of job change. The control process – Importance – Methods – Requirement of effective control systems grievances –Causes – Implications – Redressal methods. **CO5**

TOTAL : 45 PERIODS

TEXT BOOKS

1. Gary Dessler and Biju Varkkey, Human Resource Management, 14th Edition, Pearson Education Limited, 2015.
2. David A. Decenzo, Stephen. P. Robbins, and Susan L. Verhulst, Human Resource Management, Wiley, International Student Edition, 11th Edition, 2014.
3. Luis R. Gomez - Mejia, David B. Balkin, Robert L Cardy. Managing Human Resource. PHI Learning. 2012

REFERENCE BOOKS

1. Bernadin, Human Resource Management, Tata McGraw Hill, 8th edition 2012.
2. Wayne Cascio, Managing Human Resource, McGraw Hill, 2015.
3. Ivancevich, Human Resource Management, McGraw Hill 2012.
4. Uday Kumar Halder, Juthika Sarkar. Human Resource management. Oxford. 2012

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the various aspects of HR
- CO2 To analyse the human resource requirements and; to evaluate and create recruitment, selection, induction and socialization process.
- CO3 To analyse, evaluate and create training and executive development programmes
- CO4 To analyse mentoring, protégé relationships, job satisfaction, organizational citizenship behavior and; to create compensation plan, career management and employee engagement
- CO5 To create a good performance appraisal system and grievance redressal methods

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 3 | 2 | - | - | - | 1 | 3 | 3 | 1 | 1 |
| CO2 | 3 | 3 | 2 | 1 | - | 1 | 1 | 3 | 3 | 1 | 1 |
| CO3 | 3 | 3 | 2 | 1 | - | 1 | 1 | 3 | 3 | 1 | 1 |
| CO4 | 3 | 3 | 2 | 1 | 1 | 1 | 1 | 3 | 3 | 1 | 1 |
| CO5 | 3 | 3 | 2 | 1 | 1 | 1 | 1 | 3 | 3 | 1 | 1 |

MB1204

OPERATIONS MANAGEMENT

L P T C
3 0 0 3

OBJECTIVES

- To learn the basic concepts of Operations Management
- To understand the importance of Operations and the value chain
- To understand concepts of Designing Operations
- To understand the importance of Planning and Control
- To understand the importance of Quality Management

| | | |
|-----------------|---|------------|
| UNIT I | INTRODUCTION TO OPERATIONS MANAGEMENT | 9 |
| | Operations Management – Nature, Importance, historical development, transformation processes, differences between services and goods, a system perspective, functions, challenges, current priorities, recent trends. Operations Strategy – Strategic fit, framework. Productivity; World-class manufacturing practices | CO1 |
| UNIT II | OPERATIONS AND THE VALUE CHAIN | 9 |
| | Capacity Planning – Long range, Types, Developing capacity alternatives, tools for capacity planning. Facility Location–Theories, Steps in Selection, Location Models. Sourcing and procurement-Strategic sourcing, make or buy decision, procurement process, managing vendors | CO2 |
| UNIT III | DESIGNING OPERATIONS | 9 |
| | Product Design-Criteria, Approaches. Product development process-stage-gate approach tools for efficient development Process- design, strategy, types, analysis. Facility Layout–Principles, Types, Planning tools and techniques. | CO3 |
| UNIT IV | PLANNING AND CONTROL OF OPERATIONS | 9 |
| | Demand Forecasting–Need, Types, Objectives and Steps- Overview of Qualitative and Quantitative methods. Operations planning-Resource planning-Inventory Planning and Control. Operations Scheduling- Theory of constraints-bottle necks, capacity constrained resources, synchronous | CO4 |
| UNIT V | QUALITY MANAGEMENT | 9 |
| | Definitions of quality, The Quality revolution, quality gurus; TQM philosophies; Quality management tools, certification and awards. Lean Management - philosophy, elements of JIT manufacturing, continuous improvement. Six sigma's. | CO5 |

TOTAL : 45 PERIODS

TEXT BOOKS

1. Richard B. Chase, Ravi Shankar, F. Robert Jacobs, Operations and Supply Chain Management, McGraw Hill Education (India) Pvt. Ltd, 14th Edition, 2014.
2. Mahadevan B, Operations management: Theory and practice. Pearson Education India; 2015
3. William J Stevenson, Operations Management, Tata McGraw Hill, 9th Edition, 2009.
4. Russel and Taylor, Operations Management, Wiley, 5th Edition, 2006.

REFERENCE BOOKS

1. Norman Gaither and Gregory Frazier, Operations Management, South Western Cengage Learning, 9th edition, 2015.
2. Cecil C. Bozarth, Robert B. Handfield, Introduction to Operations and Supply Chain Management, Pearson, 4th Edition, 2016.
4. Panneerselvam. R, Production and Operations Management, 3rd Edition, PHI Learning, 2012

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the basic concepts of operations management, its evolution, recent trends and challenges, and apply the techniques to improve productivity and ensure world class manufacturing.
- CO2 To understand the issues involved in various level of operations planning and analyse the elements involved in product, process and services that add value to customers.
- CO3 To understand the elements to be addressed in designing product, process, services and facilities and create the best of them.

- CO4 To analyse the demand for product and services using quantitative and qualitative techniques and evaluate and find the requirement of inventory level and creating suitable inventory plan.
- CO5 To remember and understand the various quality tools and techniques to create best product and services.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 3 | 2 | 1 | - | - | 1 | 3 | 3 | 2 | - |
| CO2 | 3 | 3 | 2 | 1 | - | - | 1 | 3 | 3 | 2 | - |
| CO3 | 3 | 3 | 2 | 1 | - | - | 1 | 3 | 3 | 2 | - |
| CO4 | 3 | 3 | 2 | 1 | - | - | 1 | 3 | 3 | 2 | - |
| CO5 | 3 | 3 | 2 | 1 | - | - | 1 | 3 | 3 | 2 | - |

MB1205

MARKETING MANAGEMENT

L P T C
3 0 0 3

OBJECTIVES

- To learn the fundamentals of Marketing Management
- To understand the strategy followed in marketing
- To understand the fundamentals of marketing mix decisions
- To understand the role of buyer behaviour
- To understand the concepts of Marketing research & recent trends in marketing

UNIT I INTRODUCTION

9

Defining Marketing – Core concepts in Marketing – Evolution of Marketing – Marketing Planning Process – Scanning Business environment: Internal and External – Value chain – Core Competencies – PESTEL – SWOT Analysis – Marketing interface with other functional areas– Production, Finance, Human Relations Management, Information System – Marketing in global environment – International Marketing – Rural Marketing–Prospects and Challenges.

CO1

UNIT II MARKETING STRATEGY

9

Marketing strategy formulations – Key Drivers of Marketing Strategies - Strategies for Industrial Marketing – Consumer Marketing – Services marketing – Competition Analysis – Analysis of consumer and industrial markets – Influence of Economic and Behavioral Factors–Strategic Marketing Mix components.

CO2

UNIT III MARKETING MIX DECISIONS

9

Product planning and development – Product life cycle – New product Development and Management – Defining Market Segmentation – Targeting and Positioning – Brand Positioning and Differentiation – Channel Management – Managing Integrated Marketing Channels – Managing Retailing, Wholesaling and Logistics – Advertising and Sales Promotions – Pricing Objectives, Policies and Methods

CO3

UNIT IV BUYER BEHAVIOUR

9

| | | | | | | | | | | | |
|-----|---|--|---|---|---|---|---|---|---|---|---|
| CO5 | 3 | | 3 | - | - | - | 1 | 3 | 3 | 3 | 1 |
|-----|---|--|---|---|---|---|---|---|---|---|---|

MB1206

BUSINESS ANALYTICS

L P T C
3 0 0 3

OBJECTIVES

- To learn the fundamentals of Business Analytics
- To understand the importance of Resource Management in business Analytics
- To understand the fundamentals of Descriptive Analysis
- To understand the role of Predictive Analysis
- To understand the concepts of Prescriptive Analysis

| | | |
|-----------------|--|------------|
| UNIT I | INTRODUCTION TO BUSINESS ANALYTICS (BA) | 9 |
| | Business Analytics- Terminologies, Process, Importance, Relationship with Organisational Decision Making, BA for Competitive Advantage. | CO1 |
| UNIT II | MANAGING RESOURCES FOR BUSINESS ANALYTICS | 9 |
| | Managing BA Personnel, Data and Technology. Organisational Structures aligning BA. Managing Information policy, data quality and change in BA. | CO2 |
| UNIT III | DESCRIPTIVE ANALYTICS | 9 |
| | Introduction to Descriptive analytics - Visualizing and Exploring Data - Descriptive Statistics – Sampling and Estimation – Probability Distribution for Descriptive Analytics – Analysis of Descriptive analytics | CO3 |
| UNIT IV | PREDICTIVE ANALYTICS | 9 |
| | Introduction to Predictive analytics – Logic and Data Driven Models – Predictive Analysis Modeling and procedure – Data Mining for Predictive analytics. Analysis of Predictive analytics | CO4 |
| UNIT V | PRESCRIPTIVE ANALYTICS | 9 |
| | Introduction to Prescriptive analytics – Prescriptive Modeling – Non Linear Optimisation – Demonstrating Business Performance Improvement. | CO5 |

TOTAL : 45 PERIODS

TEXT BOOKS

1. Marc J. Schniederjans, Dara G. Schniederjans and Christopher M. Starkey, "Business Analytics Principles, Concepts, and Applications-What, Why, and How", Pearson,2014
2. Christian Albright Sand Wayne L. Winston, "Business Analytics-Data Analysis and Decision Making", Fifth edition, Cengage Learning, 2015.

REFERENCE BOOKS

1. James R. Evans, "Business Analytics - Methods, Models and Decisions", Pearson Ed,2012.
2. Newbold, Carlson, Thorne – Statistics for Business and Economics, 6th ed., Pearson
3. S. C.Gupta – Fundamentals of Statistics, Himalaya Publishing
4. Walpole – Probability and Statistics for Scientists and Engineers, 8th ed., Pearson

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the fundamentals of Business Analytics
CO2 To evaluate and manage resources for business Analytics

- CO3 To apply descriptive analysis
- CO4 To apply Predictive Analysis
- CO5 To analyse and evaluate the applications of Prescriptive Analytics

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 3 | 3 | 1 | - | - | - | 3 | 3 | 2 | - |
| CO2 | 3 | 3 | 3 | 1 | - | - | - | 3 | 3 | 2 | - |
| CO3 | 3 | 3 | 3 | 1 | - | - | - | 3 | 3 | 2 | - |
| CO4 | 3 | 3 | 3 | 1 | - | - | - | 3 | 3 | 2 | - |
| CO5 | 3 | 3 | 3 | 1 | - | - | - | 3 | 3 | 2 | - |

MB1207

PRO-SOCIAL BEHAVIOUR

L P T C
0 0 4 2

OBJECTIVES

To introduce the students to the organization behaviour topics.

Exercises

1. Pygmalion Effect
2. Transaction analysis
3. Strokes
4. Life Positions
5. Self-efficacy/Confidence
6. Positive Psychology
7. Psychological Capital
8. Happiness/Subjective well-being
9. Emotional Labour
10. Creating Rapport

TOTAL : 30 PERIODS

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand and analyse one self and others behaviour in organizations.
- CO2 To analyse and improve self-confidence level.
- CO3 To analyse and create good interpersonal relationship.
- CO4 To create self-awareness.
- CO5 To improve quality of life

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | - | 2 | - | - | - | - | 3 | 3 | 3 | - |
| CO2 | 3 | - | 3 | - | - | - | - | 3 | 3 | 3 | - |
| CO3 | 3 | - | 3 | - | - | - | - | 3 | 3 | 2 | - |
| CO4 | 2 | - | 2 | - | - | - | - | 3 | 3 | 2 | - |
| CO5 | 3 | - | 3 | - | - | - | - | 3 | 3 | 3 | - |

MB1210 BUSINESS ANALYTICS & MODELLING (LABORATORY) **L P T C**
0 4 0 2

OBJECTIVES

- To understand the importance of data analysis for business modelling

Exercises

- Forecasting
- Extended experiment–1
 - Portfolio Selection
 - Risk Analysis & Sensitivity Analysis
 - Revenue Management
- Extended experiment–2
 - Transportation & Assignment
 - Networking Models
 - Queuing Theory
 - Inventory Models
- Extended experiments–3
- Hive -SQL
- Analytics using python
 - Descriptive analysis – mean, median, mode
 - Predictive analysis – Data Visualization
 - Prescriptive analytics –Regression
- Data Visualization using Power BI

TOTAL : 60 PERIODS

TEXT BOOKS

- David R. Anderson, et al,"An Introduction to Management Sciences: Quantitative approaches to Decision Making", (13th edition) South-Western College Pub, 2011.
- William J. Stevenson, Ceyhun Ozgur,"Introduction to Management Science with Spread sheet", Tata McGraw Hill, 2009.

REFERENCE BOOKS

1. David M. Levine et al, "Statistics for Managers using MS - Excel" (6th Edition) Pearson, 2010.
2. Minnick, C. Web Kit for Dummies. John Wiley & Sons, (2012).

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand forecasting in real time business world using analytical tools
- CO2 To understand and conduct Risk and sensitivity analysis and portfolio selection based on business data
- CO3 To have enhanced knowledge about networking, inventory models and queuing theory using data analytical tools

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | - | 1 | 3 | - | - | - | - | - | 1 | - | - |
| CO2 | - | 1 | 3 | - | - | - | - | - | 1 | - | - |
| CO3 | - | 1 | 3 | - | - | - | - | - | 1 | - | - |

MB1301

STRATEGIC MANAGEMENT

L P T C
3 0 0 3

OBJECTIVES

- To learn the fundamentals of strategy and process
- To understand the competitive advantage for business organisation
- To understand various strategy adopted by organisations
- To understand the strategic implementation & Evaluation process
- To understand the issues in implementation of strategy

UNIT I STRATEGY AND PROCESS

9

Conceptual framework for strategic management, the Concept of Strategy and the Strategy Formation Process – Stake holders in business – Vision, Mission and Purpose – Business definition, Objectives and Goals -Corporate Governance and Social responsibility-case study.

CO1

UNIT II COMPETITIVE ADVANTAGE

9

External Environment - Porter's Five Forces Model-Strategic Groups Competitive Changes during Industry Evolution – Globalisation and Industry Structure – National Context and Competitive advantage - Resources – Capabilities and competencies – core competencies – Low cost and differentiation Generic Building Blocks of Competitive Advantage – Distinctive Competencies - Resources and Capabilities durability of competitive Advantage- Avoiding failures and sustaining competitive advantage – Case study.

CO2

UNIT III STRATEGIES

9

The generic strategic alternatives – Stability, Expansion, Retrenchment and Combination strategies – Business level strategy – Strategy in the Global Environment – Corporate

CO3

Strategy – Vertical Integration - Diversification and Strategic Alliances - Building and Restructuring the corporation - Strategic analysis and choice – Managing Growth - Environmental Threat and Opportunity Profile(ETOP) - Organizational Capability Profile - Strategic Advantage Profile - Corporate Portfolio Analysis - SWOT Analysis - GAP Analysis - Mc Kinsey's 7s Framework - GE 9 Cell Model –Distinctive competitiveness - Selection of matrix - Balance Score Card- case study.

UNIT IV STRATEGY IMPLEMENTATION & EVALUATION 9

The Implementation process, Resource allocation, Designing organisational structure – Designing Strategic Control systems – Matching structure and control to strategy – Implementing strategic change – politics – power and conflict – Techniques of strategic evaluation & control - case study **CO4**

UNIT V OTHER STRATEGIC ISSUES 9

Managing Technology and Innovation – Strategic issues for Non Profit organisations. New Business Models and strategies for Internet Economy – case study Challenges in Strategic Management: Introduction, Strategic Management as an Organisational Force, Dealing with Strategic Management in Various Situations, Strategic Management Implications and Challenges Recent Trends in Strategic Management: Introduction, Strategic Thinking, Organisational Culture and its Significance, Organisational Development and Change, Change Management, Strategic management in a new globalised economy **CO5**

TOTAL : 45 PERIODS

TEXT BOOKS

1. Hill. Strategic Management: An Integrated approach,2009 Edition Wiley(2012).
2. John A. Parnell. Strategic Management, Theory and practice Biztantra (2012).
3. Azhar Kazmi, Strategic Management and Business Policy,3rdEdition,TataMcGrawHill,2008
4. Adria H Aberberg and Alison Rieple, Strategic Management Theory & Application, Oxford University Press, 2008.

REFERENCE BOOKS

1. Gupta, Gollakota and Srinivasan, Business Policy and Strategic Management – Concepts and Application, Prentice Hall of India,2005.
2. Dr .Dharma Bir Singh, Strategic Management & Business Policy, Ko Gent Learning Solutions Inc., Wiley, 2012.
3. John Pearce, Richard Robinson and Amitha Mittal, Strategic Management, Mc Graw Hill, 12th Edition, 2012

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand and analyse the concept of strategic management process and formulations to gain knowledge about corporate governance and social responsibility.
- CO2 To evaluate the external environment using tools like differentiation with distinctive advantage to avoid failures and sustaining competitive advantage.
- CO3 To analyse internal business environment and create organizational level strategies
- CO4 To apply strategies in practice. To evaluate and control strategies.
- CO5 To create innovative technology and to analyse the issues of profit and nonprofit organisations.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|------------|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 3 | 3 | 2 | 3 | 1 | 1 | 3 | 3 | 3 | - |
| CO2 | 3 | 3 | 3 | 2 | 3 | 1 | 1 | 3 | 3 | 3 | - |
| CO3 | 3 | 3 | 3 | 2 | 3 | 1 | 1 | 3 | 3 | 3 | - |
| CO4 | 3 | 3 | 3 | 2 | 3 | 1 | 1 | 3 | 3 | 3 | - |
| CO5 | 3 | 3 | 3 | 2 | 3 | 1 | 1 | 3 | 3 | 3 | - |

MB1302

INTERNATIONAL BUSINESS

L P T C
3 0 0 3

OBJECTIVES

- To learn the fundamentals of International Business
- To understand the theories of International Trade and Investment
- To understand various strategy to enter global markets
- To understand the strategy in Marketing, Marketing, Financials of Global Business
- To understand the issues in Human Resource Management in International Business

| | | |
|---|---|------------|
| UNIT I | AN OVERVIEW OF INTERNATIONAL BUSINESS | 9 |
| Definition and drivers of International Business- Changing Environment of International Business – Country attractiveness – Trends in Globalization – Effect and Benefit of Globalization – International Institution: UNCTAD Basic Principles and Major Achievements, Role of IMF, Features of IBRD, Role and Advantage of WTO. | | CO1 |
| UNIT II | THEORIES OF INTERNATIONAL TRADE AND INVESTMENT | 9 |
| Theories of International Trade: Mercantilism, Absolute Advantage Theory, Comparative Cost Theory, Hecksher – Ohlin Theory – Theories of Foreign Direct Investment: Product Life Cycle, Eclectic, Market Power, Internationalisation – Instruments of Trade Policy : Voluntary Export Restraints, Administrative Policy, Anti-dumping Policy, Balance of Payment. | | CO2 |
| UNIT III | GLOBAL ENTRY | 9 |
| Strategic compulsions— Strategic options – Global portfolio management- Global entry strategy, different forms of international business, advantages – Organizational issues of international business – Organizational structures – Controlling of international business, approaches to control –Performance of global business, performance evaluation system. | | CO3 |
| UNIT IV | PRODUCTION, MARKETING, FINANCIALS OF GLOBAL BUSINESS | 9 |
| Global production: Location, scale of operations – cost of production – Standardization Vs Differentiation – Make or Buy decisions – global supply chain issues – Quality considerations. Globalization of markets: Marketing strategy - Challenges in product development – pricing – production and channel management. Foreign Exchange Determination Systems: Basic Concepts – types of Exchange Rate Regimes-Factors Affecting Exchange Rates. | | CO4 |
| UNIT V | HUMAN RESOURCE MANAGEMENT IN INTERNATIONAL BUSINESS | 9 |
| Selection of expatriate managers – Managing across cultures – Training and development – | | CO5 |

Compensation – Disadvantages of international business – Conflict in international business - Sources and types of conflict – Conflict resolutions – Negotiation – Ethical issues in international business – Ethical decision-making.

TOTAL : 45 PERIODS

TEXT BOOKS

1. Charles W.I. Hill and Arun Kumar Jain, International Business, 6th edition, Tata McGraw Hill, New Delhi, 2010
2. Michael R. Czinkota, Ilkka A. Ronkainen and Michael H. Moffet, International Business, 7th Edition, Cengage Learning, New Delhi, 2010
3. K. Aswathappa, International Business, 5th Edition, Tata McGraw Hill, New Delhi, 2012.

REFERENCE BOOKS

1. John D. Daniels and Leeh Radebaugh, International Business, Pearson Education Asia, New Delhi, 12th edition.
2. Vyuptakesh Sharan, International Business, 3rd Edition, Pearson Education in South Asia, New Delhi, 2011
3. Rakesh Mohan Joshi, International Business, Oxford University Press, New Delhi, 2009

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand and remember the concepts and importance of international business environment and globalization
- CO2 To understand the different theories of international trade and investment and instruments of trade policy
- CO3 To evaluate the effectiveness of global entry strategies
- CO4 To apply the different functional strategies for effective global business
- CO5 To evaluate the cultural aspects of international business

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|------------|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 3 | 3 | 2 | 3 | 1 | 1 | 3 | 3 | 3 | - |
| CO2 | 3 | 3 | 3 | 2 | 3 | 1 | 1 | 3 | 3 | 3 | - |
| CO3 | 3 | 3 | 3 | 2 | 3 | 1 | 1 | 3 | 3 | 3 | - |
| CO4 | 3 | 3 | 3 | 2 | 3 | 1 | 1 | 3 | 3 | 3 | - |
| CO5 | 3 | 3 | 3 | 2 | 3 | 1 | 1 | 3 | 3 | 3 | 3 |

MB1312

PROFESSIONAL EXCELLENCE (LABORATORY)

L P T C
0 4 0 2

OBJECTIVES

- To excel in functional areas of management

To understand the importance of data analysis for business modelling

| | |
|--|-----------|
| UNIT 1 BUSINESS ANALYTICS | 12 |
| <ul style="list-style-type: none"> • Descriptive analysis • Predictive analysis • Prescriptive analytics • Data Visualization using Power BI | |
| UNIT 2 FINANCIAL ANALYTICS | 12 |
| <ul style="list-style-type: none"> • Financial Statement Analysis • Capital Budgeting Analysis • Portfolio Selection • Risk & returns • Portfolio Valuation • Revenue Management | |
| UNIT 3 HUMAN RESOURCES ANALYTICS | 12 |
| <ul style="list-style-type: none"> • Recruitment • People analytics • Training & development • Employee engagement | |
| UNIT 4 MARKETING ANALYTICS | 12 |
| <ul style="list-style-type: none"> • Customer segmentation • Product and Price analytics • Market Basket Analysis • Measuring the effectiveness of Advertising • Web analytics | |
| UNIT 5 OPERATION ANALYTICS | 12 |
| <ul style="list-style-type: none"> • Forecasting • Transportation & Assignment • Networking Models • Queuing Theory • Inventory Models • Optimisation | |

TOTAL : 60 PERIODS

TEXT BOOKS

1. David R. Anderson, et al, "An Introduction to Management Sciences: Quantitative approaches to Decision Making", (13th edition) South-Western College Pub, 2011.

Need for Creative and innovative thinking for quality – Essential theory about directed creativity, Components of Creativity, Methodologies and approaches, individual and group creativity, Organizational role in creativity, types of innovation, barriers to innovation, innovation process, establishing criterion for assessment of creativity & innovation **CO1**

UNIT II MECHANISM OF THINKING AND VISUALIZATION 12

Definitions and theory of mechanisms of mind heuristics and models: attitudes, Approaches and Actions that support creative thinking-Advanced study of visual elements and principles - line, plane, shape, form, pattern, texture gradation, color symmetry. Spatial relationships and compositions in 2 and 3 dimensional space - procedure for genuine graphical computer animation –Animation aerodynamics – virtual environments in scientific Visualization– Unifying principle of data management for scientific visualization–Visualization bench marking **CO2**

UNIT III CREATIVITY 12

Nature of Creativity: Person, Process, Product and Environment, Methods and tools for Directed Creativity – Basic Principles – Tools that prepare the mind for creative thought – stimulation – Development and Actions – Processes in creativity ICEDIP–Inspiration, Clarification, Distillation, Perspiration, Evaluation and Incubation – Creativity and Motivation The Bridge between man creativity and there wards of innovativeness – Applying Directed Creativity. **CO3**

UNIT IV CREATIVITY IN PROBLEM SOLVING 12

Generating and acquiring new ideas, product design, service design – case studies and hands –on exercises, stimulation tools and approaches, six thinking hats, lateral thinking – Individual activity, group activity, contextual influences. Assessing Your Personal Creativity and Ability to Innovate, Enhancing Your Creative and Innovative Abilities **CO4**

UNIT V INNOVATION 12

Innovation- radical vs evolutionary,–Introduction to TRIZ methodology of Inventive Problem Solving – the essential factors – Innovator’s solution – creating and sustaining successful growth –Disruptive Innovation model – Segmentive Models – New market disruption – Managing the Strategy Development Process – The Role of Senior Executive in Leading New Growth – Passing the Baton, Entrepreneurial Tools for Creativity and Innovation **CO5**

TOTAL : 60 PERIODS

TEXT BOOKS

1. Rousing Creativity: Think New Now Floyd Hurt, ISBN1560525479, Crisp Publications Inc.1999
2. Geoffrey Petty, ”how to be better at Creativity”, The Industrial Society 2012
3. Clayton M. Christensen Michael E.Raynor, ”The Innovator’s Solution”, Harvard Business School Press Boston, USA, 2007

REFERENCE BOOKS

1. Semyon D.Savransky, ” Engineering of Creativity–TRIZ”, CRC Press New York USA,” 1st edition 2000
2. CSG Krishnama Charyalu, Lalitha R Innovation management, Himalaya Publishing House 2013

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the fundamentals of creativity and Innovation
- CO2 To apply the mechanism of thinking and visualization
- CO3 To apply creativity
- CO4 To apply creativity in problem solving
- CO5 To apply entrepreneurial tools for creativity and innovation

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|------------|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 2 | 1 | 1 | 2 | 2 | - | 3 | 3 | 2 | - |
| CO2 | 3 | 2 | 1 | 1 | 2 | 2 | - | 3 | 3 | 2 | - |
| CO3 | 3 | 2 | 1 | 1 | 2 | 2 | - | 3 | 3 | 2 | - |
| CO4 | 3 | 2 | 1 | 1 | 2 | 2 | - | 3 | 3 | 2 | - |
| CO5 | 3 | 2 | 1 | 1 | 2 | 2 | - | 3 | 3 | 2 | - |

FUNCTIONAL ELECTIVES

MARKETING

MB1001 **RETAIL MARKETING** **L T P C**
3 0 0 3

OBJECTIVES

- To understand the concepts of effective retailing

UNIT I INTRODUCTION **9**
 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. **CO1**

UNIT II RETAIL FORMATS **9**
 Organized and unorganized formats – Different organized retail formats – Characteristics of each format– Emerging trends in retail formats – MNC's role in organized retail formats. **CO2**

UNIT III RETAILING DECISIONS **9**
 Choice of retail locations - internal and external atmospherics – Positioning of retail shops – Building retail store Image - Retail service quality management – Retail Supply Chain Management– Retail Pricing Decisions. Merchandizing and category management – buying. **CO3**

UNIT IV RETAIL SHOP MANAGEMENT **9**
 Visual Merchandise Management–Space Management–Retail Inventory Management–Retail accounting and audits - Retail store brands – Retail advertising and promotions – Retail Management Information Systems -Online retail – Emerging trends. **CO4**

UNIT V RETAIL SHOPPER BEHAVIOUR **9**
 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 **CO5**

TOTAL : 45 PERIODS

TEXT BOOKS

1. Dr.Jaspreet Kaur, Customer Relationship Management, Kogent solution.
2. Ramkrishnan and Y.R. Srinivasan, Indian Retailing Text and Cases, Oxford University Press, 2008.

REFERENCE BOOKS

- 1) Dunne,Retailing,CengageLearning,2ndEdition, 2008
- 2) Swapna Pradhan, Retail Management -Text and Cases, Tata McGraw Hill, 3rd Edition,2009
- 3) Patrick M. Dunne and Robert FLusch, Retailing, Thomson Learning, 4th Edition 2008.

COURSE OUTCOMES

- CO1 To understand the concept of retailing in India, analysis it with global level , government rules and implication on retailing
- CO2 To understand and apply the chosen of various formats
- CO3 To analyse the retail atmospheric, location, service quality management, supply chain management and pricing decision in retail management.
- CO4 To understand about the interior maintenance of retail like inventory management, analyse the various visual display, advertisement and promotion necessary for retailing, role of it in retail management
- CO5 To analyse the shopper behavior analysis, decision making process, complaints management and evaluate the challenges in retail

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 2 | 2 | 2 | - | - | - | 3 | 3 | 2 | - |
| CO2 | 3 | 2 | 2 | 2 | - | - | - | 3 | 3 | 2 | - |
| CO3 | 3 | 2 | 2 | 2 | 1 | - | - | 3 | 3 | 2 | - |
| CO4 | 3 | 2 | 2 | 2 | 1 | - | - | 3 | 3 | 2 | - |
| CO5 | 3 | 2 | 2 | 2 | - | - | - | 3 | 3 | 2 | - |

MB1002

CONSUMER BEHAVIOR

L T P C
3 0 0 3

OBJECTIVES

- To study and understand the consumer behaviour in-order to effectively utilise the market potential

UNIT I INTRODUCTION

9

| | |
|--|------------|
| Understanding Consumer behavior, Consumption, Consumer orientation, Interpretive and Quantitative approaches - Effects of Technology, Demographics and Economy on Consumer behavior. | CO1 |
| UNIT II INTERNAL INFLUENCES | 9 |
| Influences on consumer behavior – motivation – perception – Attitudes and Beliefs – learning and Experience – Personality & Self Image. | CO2 |
| UNIT III EXTERNAL INFLUENCES | 9 |
| Socio-Cultural, Cross Culture – Family group – Reference group – Communication – Influences on Consumer behavior | CO3 |
| UNIT IV CONSUMER BEHAVIOR MODELS | 9 |
| Traditional and Contemporary Consumer behavior model for Individual and industrial buying behavior and decision making. | CO4 |
| UNIT V PURCHASE DECISION PROCESS | 9 |
| Consumer decision making process – Steps, Levels and decision rules - Evolving Indian consumers – Opinion Leadership – Diffusion and Adoption | CO5 |

TOTAL : 45 PERIODS

TEXT BOOKS

1. Ramanuj Majumdar, Consumer Behaviour – Insights from Indian Market, PHI, 2010
2. Leon G. Schiffman and Leslie Lasar Kanuk, Consumer Behaviour, Pearson Education, India, ninth edition, 2010

REFERENCE BOOKS

1. Barry J.B., Eric G.H., Ashutosh M., Consumer Behaviour – A South Asian Perspective, Cengage Learning, 2016.
2. P.C. Jain and Monika Bhatt., Consumer Behavior in Indian Context, S.Chand & Company, 2013.
3. Srabanti Mukherjee, Consumer behavior, Cengage Learning, 2012.
4. Assael, Consumer Behavior - A Strategic Approach, Biztranza, 2008

COURSE OUTCOMES

- | | |
|-----|---|
| CO1 | To Understand Consumer orientation and consumption |
| CO2 | To apply the internal factors influences in consumer behaviour |
| CO3 | To analyse the effects of external influences in consumer behaviour |
| CO4 | To evaluate the consumer behaviour models in consumer behaviour |
| CO5 | To analyse and evaluate the purchase decision process in consumer behaviour |

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|------------|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 2 | 3 | 1 | - | - | - | 3 | 3 | 2 | - |
| CO2 | 3 | 2 | 3 | 1 | - | - | - | 3 | 3 | 2 | - |

2. Terence A. Shimp and J. Craig Andrews, Advertising Promotion and other aspects of Integrated Marketing Communications, CENGAGE Learning, 9th edition, 2016

COURSE OUTCOMES

- CO1 To understand the basics of traditional communication forms
- CO2 To design and develop an effective Integrated Marketing Communication
- CO3 To apply and analyse the marketing communication programme.
- CO4 To develop integrated marketing communications tools
- CO5 To develop and evaluate digital media & advertising

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 2 | 3 | 1 | 1 | - | - | 3 | 3 | 2 | - |
| CO2 | 3 | 2 | 3 | 1 | 1 | - | - | 3 | 3 | 2 | - |
| CO3 | 3 | 2 | 3 | 1 | 1 | - | - | 3 | 3 | 2 | - |
| CO4 | 3 | 2 | 3 | 1 | 1 | - | - | 3 | 3 | 2 | - |
| CO5 | 3 | 2 | 3 | 1 | 1 | - | - | 3 | 3 | 2 | - |

MB1004

SERVICES MARKETING

L T P C
3 0 0 3

OBJECTIVES

- To appreciate the challenges involved in managing the services and analyze the strategies to deal with these challenges.

| | |
|--|------------|
| UNIT I INTRODUCTION | 9 |
| Introduction–Definition–Service Economy– Evolution and growth of service sector- Nature and Scope of Services –Difference between services and tangible products –Unique characteristics of services–Challenges and issues in Services Marketing. | CO1 |
| UNIT II SERVICE MARKETING OPPORTUNITIES | 9 |
| Assessing service market potential – Classification of services – Expanded marketing mix – Service marketing – Environment and trends – Service market segmentation, targeting and positioning. | CO2 |
| UNIT III SERVICE DESIGN AND DEVELOPMENT | 9 |
| Service Life Cycle – New service development – Service Blue Printing – GAP model of service quality–Measuring service quality–SERVQUAL–Service Quality function development. | CO3 |
| UNIT IV SERVICE DELIVERY AND PROMOTION | 9 |
| Positioning of services – Designing service delivery System, Service Channel – Pricing services, methods-Service marketing triangle, Managing demand, Managing supply, Managing Demand and Supply of Service–Integrated Service marketing communication. | CO4 |
| UNIT V SERVICE STRATEGIES | 9 |

Service Marketing Strategies for Health – Hospitality – Tourism – Financial – Logistics– Educational – Marketing of Online Services– Entertainment & public utility Information CO5 technique services.

TOTAL : 45 PERIODS

TEXT BOOKS

1. VinnieJauhari & Kirti Dutta(2017),Services Marketing, Text and cases, 2ndedition
2. Valarie Zeithaml et al, Services Marketing, 5th International Edition, Tata McGraw Hill,2007
3. Gronroos, Service Management and Marketing –Wiley India, 3rd Edition, 2009

REFERENCE BOOKS

1. Kenneth EClow, etal, Services Marketing Operation Management and Strategy, 2ndEdition, New Delhi, 2004.
2. Chiristopher Lovelock and Jochen Wirtz, Services Marketing, Pearson Education, New Delhi, 7th edition, 2011.
3. Hoffman, Marketing of Services, Cengage, 4th Edition, 2010.
4. Kenneth E Clow, et al, Services Marketing Operation Management and Strategy, Biztantra, 2nd Edition, New Delhi, 2004.

COURSE OUTCOMES

- CO1 To understand and analyse the basic concepts of service marketing and to gain knowledge about the evolution of service sector
- CO2 To evaluate the service market potential and also analyze various service marketing opportunities with help of segmenting, targeting and positioning
- CO3 To analyse service life cycle to design and develop new service, also evaluate quality of service using SERVQUAL
- CO4 To understand and analyze the delivery system designing and various service channels and create various communication channels
- CO5 To create innovative strategies and to analyse these strategies for various sectors of service

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 2 | 3 | 1 | 1 | 1 | - | 3 | 3 | 2 | - |
| CO2 | 3 | 2 | 3 | 1 | 1 | 1 | - | 3 | 3 | 2 | - |
| CO3 | 3 | 2 | 3 | 1 | 1 | 1 | - | 3 | 3 | 2 | - |
| CO4 | 3 | 2 | 3 | 1 | 1 | 1 | - | 3 | 3 | 2 | - |
| CO5 | 3 | 2 | 3 | 1 | 1 | 1 | - | 3 | 3 | 2 | - |

MB1005

SALES AND DISTRIBUTION MANAGEMENT

L T P C
3 0 0 3

OBJECTIVES

- To gain insights into the selling and distribution process.

| | | |
|---|---|----------|
| UNIT I | INTRODUCTION | 9 |
| Sales management - Nature and scope. Sales management positions. Personal Selling - Scope, theories and strategies. Sales forecasting and budgeting decisions - Online selling – scope, potential, Merits and Demerits. | | |
| UNIT II | PERSONAL SELLING PROCESS, SALES TERRITORIES & QUOTAS | 9 |
| Selling process and relationship selling. Designing Sales Territories and quotas. Sales organization structures. | | |
| UNIT III | MANAGING THE SALES FORCE | 9 |
| Sales force -recruitment, selection, training, motivation, compensation and control. | | |
| UNIT IV | MANAGING DISTRIBUTION CHANNELS | 9 |
| Distribution Management - Introduction need and scope. Channels - Strategies and levels, retailing and wholesaling. Designing channel systems and channel management. | | |
| UNIT V | BASICS OF LOGISTICS AND SUPPLY CHAIN MANAGEMENT | 9 |
| Logistics - Scope, definition and components. Managing FG Inventory & warehousing. Transportation, Scope, Modes and role in Supply Chain effectiveness .Use of Information Technology in Online Selling and Goods tracking. | | |

TOTAL : 45 PERIODS

TEXT BOOKS

1. Krishna K. Havaldar, Vasant M. Cavale, Sales and Distribution Management - Text and Cases, Third Edition, McGraw Hill Education, 2017
2. Panda Tapan, Sales and Distribution Management, 2nd edition, 2012, Publisher: OUP India

REFERENCE BOOKS

1. Pingali Venugopal, Sales and Distribution Management – An Indian Perspective, Response Books from Sage Publications, 2008
2. Richard R Still and Edward W Cundiff, Sales and Distribution Management 6th Edition 2017 Pearson India

COURSE OUTCOME

- CO1 To understand basics of sales management
- CO2 To design and develop Sales Territories
- CO3 To develop and manage sales force
- CO4 To develop and manage distribution channels
- CO5 To understand inventory and supply chain management

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|------------|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 2 | 3 | 1 | 1 | 1 | - | 3 | 3 | 2 | - |
| CO2 | 3 | 2 | 3 | 1 | 1 | 1 | - | 3 | 3 | 2 | - |
| CO3 | 3 | 2 | 3 | 1 | 1 | 1 | - | 3 | 3 | 2 | - |
| CO4 | 3 | 2 | 3 | 1 | 1 | 1 | - | 3 | 3 | 2 | - |
| CO5 | 3 | 2 | 3 | 1 | 1 | 1 | - | 3 | 3 | 2 | - |

MB1006

BRAND MANAGEMENT

L T P C
3 0 0 3

OBJECTIVES

- To understand the methods of managing brands and strategies for brand management.

UNIT I INTRODUCTION

9

Basic understanding of Brands – Definitions - Branding Concepts – Functions of Brand – Significance of Brands – Different Types of Brands–Co branding – Store brands.

CO1

UNIT II BRAND STRATEGIES

9

Strategic Brand Management process – Building a strong brand – Brand positioning – Establishing Brand values – Brand vision – Brand Elements – Branding for Global Markets – Competing with foreign brands

CO2

UNIT III BRAND COMMUNICATIONS

9

Brand image Building – Brand Loyalty programme – Brand Promotion Methods – Role of Brand ambassadors, celebrities– On line Brand Promotions.

CO3

UNIT IV BRAND EXTENSION

9

Brand Adoption Practices – Different type of brand extension – Factors influencing Decision for extension– Re-branding and Re-launching.

CO4

UNIT V BRAND PERFORMANCE

9

Measuring Brand Performance – Brand Equity Management - Global Branding strategies – Brand Audit – Brand Equity Measurement – Brand Leverage -Role of Brand Managers– Branding challenges& opportunities

CO5

TOTAL : 45 PERIODS

TEXT BOOKS

1. Lan Batey, Asian Branding–A Great way to fly, PHI, Singapore, 2002.
2. Paul Tmepoal, Branding in Asia, John Willy, 2000

REFERENCE BOOKS

1. Ramesh Kumar, Managing Indian Brands, Vikas Publication, India, 2002.
2. JagdeepKapoor,Brandex,Biztranza,India,2005

COURSE OUTCOMES

- CO1 To understand branding concepts
- CO2 To understand strategic brand management process and apply branding elements and create global branding strategies.
- CO3 To create brand communication for brand promotion.
- CO4 To understand the types of brand extension and remember the factors influencing brand extension decision.
- CO5 To understand brand equity measurement techniques and analyze the branding challenges and opportunities in the global market.

MAPPING OF COs WITH POs AND PSOs

- CO2 To apply the various strategic for customer relationship, customer acquisition and customer retention techniques in CRM.
- CO3 To analysis the strategies for customer acquisition, retention and prevention of defection and models of CRM, CRM road map for business applications.
- CO4 To evaluate the various functional area coordinate with relationship management tools and Strategies.
- CO5 To remember and gain the new technological development knowledge in CRM

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 2 | 3 | 1 | - | - | - | 3 | 3 | 2 | - |
| CO2 | 3 | 2 | 3 | 1 | - | - | - | 3 | 3 | 2 | - |
| CO3 | 3 | 2 | 3 | 1 | - | - | - | 3 | 3 | 2 | - |
| CO4 | 3 | 2 | 3 | 1 | - | - | - | 3 | 3 | 2 | - |
| CO5 | 3 | 2 | 3 | 1 | - | - | - | 3 | 3 | 2 | - |

MB1041

MARKETING ANALYTICS

L T P C
3 0 0 3

OBJECTIVES

- This course will provide you with an introduction to marketing analytics. We will study various tools for generating marketing insights from empirical data in such areas as segmentation, targeting and positioning, satisfaction management, customer life time analysis, customer choice, and product and price decisions using conjoint analysis

UNIT I INTRODUCTION TO MARKETING ANALYTICS

9

Evolution and Scope of Analytics. Data for Marketing Analytics. Decision Models– Descriptive, Predictive and Prescriptive Models. Problem Solving and Decision making process.

CO1

UNIT II DATA MANAGEMENT

9

Exploring Data; Frequencies; Descriptive Statistics Cross tabulations; Independent Samples t-Test; One-Way ANOVA, Simple Regression and Correlation, Multiple Regression to Forecast sales, Modelling Trend and Seasonality, Ratio to Moving Average Method

CO2

UNIT III CUSTOMER SEGMENTATION AND VALUATION

9

Analytics for Segmentation– Introduction to Cluster analysis multivariate method. Estimation, Model performance and validation of assumptions for Cluster analysis. Customer Value Analysis, Customer Life time Value- Conjoint Analysis

CO3

UNIT IV METRICS AND MEASUREMENT ANALYTICS

9

Product and Price analytics- Conjoint Analysis -Pricing -Estimating Demand Curves and optimize Price Retailing Analytics- Allocating Retail Space and Sales Resources- Market Basket Analysis. Advertising and Promotion Analytics-Promotion Analytics-Measuring the effectiveness of Advertising

CO4

UNIT V WEB ANALYTICS

9

Search Engine Optimisation- Tracking the success of SEO. Web metrics - Google Ad words, Advertising & Analytics. **CO5**

TOTAL : 45 PERIODS

TEXT BOOKS

1. Evans, J.R. (2012). Business analytics methods, models and decisions. New Jersey: Pearson, Upper Saddle River.
2. Sorger, Stephan. — Marketing Analytics: Strategic Models and Metrics. Admiral Press/Create Space, 2013

REFERENCE BOOKS

1. Cases and datasets for hands on learning. Pearson Education.
2. Grigsby, M. (2015). Marketing Analytics: A Practical Guide to Real Marketing Science. Kogan Page Publishers.
3. Sathi, A. (2014). Engaging customers using big data: how Marketing analytics are transforming Business. Palgrave Macmillan.
4. Rao, P. H. (2011). Predictive modelling for strategic marketing. New Delhi. Prentice Hall India

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand and apply analytics models for problem solving and decision making
- CO2 To analyse the data using different statistical tools
- CO3 To understand segmentation and analyze the different analytical models for segmentation
- CO4 To understand and apply analytical tools for decisions on the 4Ps of marketing
- CO5 To understand web analytics and apply web analytics tools for optimization

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|------------|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 2 | 3 | 2 | - | - | - | 3 | 3 | 2 | - |
| CO2 | 3 | 2 | 3 | 2 | - | - | - | 3 | 3 | 2 | - |
| CO3 | 3 | 2 | 3 | 2 | - | - | - | 3 | 3 | 2 | - |
| CO4 | 3 | 2 | 3 | 2 | - | - | - | 3 | 3 | 2 | - |
| CO5 | 3 | 2 | 3 | 2 | - | - | 1 | 3 | 3 | 2 | - |

FINANCE ELECTIVES

MB1008 SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT L T P C
3 0 0 3

OBJECTIVES

- To understand the techniques involved in deciding upon purchase or sale of securities.

UNIT I INVESTMENT SETTING 9

| | |
|---|------------|
| Financial and economic meaning of Investment– Characteristics and objectives of Investment – Investment process -Types of Investment – Investment alternatives – Choice and Evaluation– Risk and return concepts –Valuation of bonds and stock. | CO1 |
| UNIT II FUNDAMENTAL ANALYSIS | 9 |
| EconomicAnalysis–EconomicforecastingandstockInvestmentDecisions–Forecastingtechniques - Industry Analysis: Industry classification, Industry life cycle – Company Analysis Measuring Earnings – Forecasting Earnings – Applied Valuation Techniques – Graham and Dodds investor ratios. | CO2 |
| UNIT III TECHNICAL ANALYSIS | 9 |
| Fundamental Analysis Vs Technical Analysis -- Dow theory – Charting methods - Chart Patterns Trend – Trend reversals – Market Indicators-Moving Average – Exponential moving Average Oscillators-RSI-ROC -MACD. Efficient Market theory - Forms of market efficiency -weak, semi-strong, strong form – Empirical tests of market efficiency-its application | CO3 |
| UNIT IV PORTFOLIO CONSTRUCTION AND SELECTION | 9 |
| Portfolio analysis - Reduction of portfolio risk through diversification – Portfolio risk - Portfolio Selection- Feasible set of portfolios - Efficient set - Markowitz model - Single index model –Construction of optimum portfolio-Multi-index model. | CO4 |
| UNIT V CAPITAL ASSET PRICING MODEL | 9 |
| 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. | CO5 |

TOTAL: 45 PERIODS

TEXT BOOKS

1. V.K.Bhalla, InvestmentManagement,Chand&CompanyLtd.,2012
2. Bodi,Kane, Markus, Mohanty ,Investments, 8thedition, Tata Mc Graw Hill, 2011.
3. Donald E.Fischer & Ronald J.Jordan, Security Analysis & Portfolio Management, PHI Learning., New Delhi, 8th edition, 2011

REFERENCE BOOKS

1. S. Kevin, Securities Analysis and Portfolio Management, PHI Learning ,2012
2. Prasannachandra, Investment analysis and Portfolio Management, Tata McGraw Hill, 2011.
3. Reilly & Brown, Investment Analysis and Portfolio Management, Cengage Learning, 9th edition, 2011.
4. S. Kevin, Securities Analysis and Portfolio Management , PHI Learning , 2012.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the basic environment of Indian financial systems especially investment options and their risk and return
- CO2 To understanding the mechanism and functioning of primary and secondary markets of capital market and intermediaries
- CO3 Ability to apply the securities risk and return using fundamental analysis
- CO4 Skill to analyze and predict share price movements and make decisions using different methods of technical analysis
- CO5 To analyze, and evaluate of manage portfolio of securities based on various techniques

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 3 | 2 | 2 | - | - | 2 | 3 | 3 | - | - |
| CO2 | 3 | 3 | 2 | 2 | - | - | 2 | 3 | 3 | - | - |
| CO3 | 3 | 3 | 2 | 2 | - | - | 2 | 3 | 3 | - | - |
| CO4 | 3 | 3 | 2 | 2 | - | - | 2 | 3 | 3 | - | - |
| CO5 | 3 | 3 | 2 | 2 | - | - | 2 | 3 | 3 | - | - |

MB1009

FINANCIAL MARKETS

L T P C
3 0 0 3

OBJECTIVES

- To understand the types and functions of the various financial markets in India, 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- Government’s philosophy and financial market–financial instruments.

CO1

UNIT II INDIAN CAPITALMARKET-PRIMARY MARKET

9

Primary Market - Primary market system - Types of scripts - Issue of capital: process, regulation pricing of issue, – Methods of floating new issues, Book building- Primary markets intermediaries: commercial banks, development banks, Merchant banker, issue managers, rating agencies etc – Role of primary market– Regulation of primary market

CO2

UNIT III SECONDARY MARKET

9

Stock exchanges in India History and development – listing-Depositories-Stock exchange mechanism: Trading, Settlement, risk management, Basics of pricing mechanism - Player and stock exchange - Regulations of stock exchanges – Role of SEBI – BSE, OTCEI, NSE, ISE, - Role of FIIs, MFs and investment bankers –Stock market indices – calculation

CO3

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 Introduction to For ex markets, basics in exchange rates theory - Forex risk exposures and basics of corporate for ex risk management

CO4

UNIT V MUTUAL FUNDS, DERIVATIVES MARKETS AND VENTURE CAPITALANDPRIVATE 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. Role of VCs and Pes in financial markets – Venture capital and Private equity.

CO5

TOTAL : 45 PERIODS

TEXT BOOKS

1. Saunders, Anthonu and Cornett, Marcia Millon, Financial markets and Institutions: An Introduction to the risk management approach, McGrawHill, Irwin, NewYork,3rdEdition,2017
2. V.K.Bhalla, Investment Management, S.Chand & Company Ltd., 2012

REFERENCE BOOKS

1. Pathak, BharatiV. Indian Financial System: Markets, Institutions and Services, (Singapore), New Delhi, Fourth edition, 2014.
2. Bodi, Kane, Markus, Mohanty, Investments, 8th edition, Tata McGraw Hill, 2011.
3. V.A.Avadhan, Securities Analysis and Portfolio Management, Himalaya Publishing House, 2013.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the basic concepts of the finance markets in India
 CO2 To understand the mechanism of Indian Capital Market
 CO3 To apply the right portfolio mix to reduce the risk in primary and secondary market
 CO4 To analyse various investment avenues to find an optimum investment plan
 CO5 To analyse and evaluate the various investment avenues for effective investment management

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 3 | 2 | - | - | - | 2 | 3 | 3 | 3 | 2 |
| CO2 | 3 | 3 | 2 | - | - | - | 2 | 3 | 3 | 3 | 2 |
| CO3 | 3 | 3 | 2 | - | - | - | 2 | 3 | 3 | 3 | 2 |
| CO4 | 3 | 3 | 2 | - | - | - | 2 | 3 | 3 | 3 | 2 |
| CO5 | 3 | 3 | 2 | - | - | - | 2 | 3 | 3 | 3 | 2 |

MB1010

BANKING AND FINANCIAL SERVICES

L T P C
3 0 0 3

OBJECTIVES

- To understand about the asset based and fund based financial services in India.

UNIT I INTRODUCTION TO INDIAN BANKING SYSTEM AND PERFORMANCE EVALUATION

9

Overview of Indian Banking system – Structure – Functions – Key Regulations in Indian Banking sector –RBI Act, 1934/ 2006 –Banking Regulation Act, 1949– Negotiable Instruments Act 1881/2002– Provisions Relating to CRR – Provision for NPA’s -Overview of Financial Statements of banks–Balance Sheet–Income Statement-CAMEL.

CO1

UNIT II MANAGING BANK FUNDS/PRODUCTS & RISK MANAGEMENT

9

Capital Adequacy – Deposit and Non-deposit sources – Designing deposit schemes and pricing of deposit sources– loan management– Investment Management–Asset and Liability

CO2

Management– Financial Distress –Signal to borrowers – Prediction Models – Risk Management –Interest rate – Forex– Credit market – operational and solvency risks–NPA’s–Current issues on NPA’s– M&A’ soft banks into securities market.

UNIT III DEVELOPMENT IN BANKING TECHNOLOGY 9

Payment system in India– paper based– e payment – electronic banking – plastic money –e-money–forecasting of cash demand at ATM’s –The Information Technology Act, 2000 in India –RBI’s Financial Sector Technology vision document –security threats in e-banking & RBI’ Initiative. Fin Tech - New operating models for banks-Banking as service and Open APIs - Neo banks **CO3**

UNIT IV ASSET BASED FINANCIAL SERVICES 9

Introduction – Need for Financial Services – Financial Services Market in India– NBFC – RBI framework and act for NBFC – Leasing and Hire Purchase – Financial evaluation – underwriting –mutual funds. **CO4**

UNIT V INSURANCE AND OTHER FEE BASED FINANCIAL SERVICES 9

Insurance Act, 1938– IRDA– Regulations– Products and services –Venture Capital Financing – Bill discounting –factoring – Merchant Banking – Role of SEBI **CO5**

TOTAL : 45 PERIODS

TEXT BOOKS

1. Padmalatha Suresh and Justin Paul, “Management of Banking and Financial Services, Pearson, Delhi, 2017.
2. Peter S. Rose and Sylvia C. and Hudgins, “Bank Management and Financial Services”, Tata McGraw Hill, New Delhi, 2012.

REFERENCE BOOKS

1. Meera Sharma, “Management of Financial Institutions – with emphasis on Bank and Risk Management”, PHI Learning Pvt. Ltd., New Delhi 2010.
2. Madura, Financial Institutions & Markets, 10th edition, Cengage, 2016.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand functions of banks and analyse the bank financial statement.
- CO2 To evaluate the various risk associated with inflow and outflow of funds
- CO3 To apply and analyse the risk associated with the modern e-banking
- CO4 To evaluate financial service offered by banks and creating revenues from those services.
- CO5 To understand the various aspects of insurance and financial services offered by Banks.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|------------|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 3 | 2 | 2 | 2 | 2 | - | 2 | 2 | 2 | - |
| CO2 | 3 | 3 | 2 | 2 | 2 | 2 | - | 2 | 2 | 2 | - |
| CO3 | 3 | 3 | 2 | 2 | 2 | 2 | - | 2 | 2 | 2 | - |

| | | | | | | | | | | | |
|------------|---|---|---|---|---|---|---|---|---|---|---|
| CO4 | 3 | 3 | 2 | 2 | 2 | 2 | - | 2 | 2 | 2 | - |
| CO5 | 3 | 3 | 2 | 2 | 2 | 2 | - | 2 | 2 | 2 | - |

MB1011 FINANCIAL DERIVATIVES **L T P C**
3 0 0 3

OBJECTIVES

- To understand the basic operational mechanisms in derivatives

| | | | |
|-----------------|--|----------|------------|
| UNIT I | INTRODUCTION | 9 | |
| | Derivatives – Definition – Types – Forward Contracts – Futures Contracts – Options – Swaps – Differences between Cash and Future Markets – Types of Traders – OTC and Exchange Traded Securities–Types of Settlement–Uses and Advantages of Derivatives –Risks in Derivatives. | | CO1 |
| UNIT II | FUTURES CONTRACT | 9 | |
| | Specifications of Futures Contract - Margin Requirements – Marking to Market – Hedging usingFuturesTypesofFuturesContractsSecurities,StockIndexFutures,CurrenciesandCommodities – Delivery Options – Relationship between Future Prices, Forward Prices and Spot Prices. | | CO2 |
| UNIT III | OPTIONS | 9 | |
| | Definition – Exchange Traded Options, OTC Options – Specifications of Options–Call and Put Options–American and European Options –Intrinsic Value and Time Value of Options– Option payoff, options on Securities, Stock Indices Currencies and Futures–Options pricing models– Differences between future and Option contracts. | | CO3 |
| UNIT IV | SWAPS | 9 | |
| | 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 | | CO4 |
| UNIT V | DERIVATIVES IN INDIA | 9 | |
| | 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. | | CO5 |

TOTAL : 45 PERIODS

TEXT BOOKS

1. John.C.Hull, Options, Futures and other Derivative Securities“, PHI Learning, 9th Edition,2012
2. S.L.Gupta, Financial Derivatives- Theory, Concepts and Practice, Prentice Hall Of India,2011.Websiteof NSE, BSE
3. David Dubofsky – „Option and Financial Futures – Valuation and Uses, McGraw Hill International Edition.

REFERENCE BOOKS

1. Keith Redhead, „Financial Derivatives – An Introduction to Futures, Forwards, Options and SWAPs“,– PHI Learning, 2011.
2. Stulz, Risk Management and Derivatives, Cengage Learning, 2nd Edition, 2011.
3. Varma, Derivaties and Risk Management, 2ndt Edition, 2011.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To possess good skills in hedging risks using derivative
- CO2 To understand about future contract and options
- CO3 Learning in depth about options and swaps.
- CO4 To knowing about the evolution of derivative markets.
- CO5 To develop in depth knowledge about stock options and index futures in NSE

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 3 | 2 | 2 | 2 | 2 | - | 2 | 2 | 2 | - |
| CO2 | 3 | 3 | 2 | 2 | 2 | 2 | - | 2 | 2 | 2 | - |
| CO3 | 3 | 3 | 2 | 2 | 2 | 2 | - | 2 | 2 | 2 | - |
| CO4 | 3 | 3 | 2 | 2 | 2 | 2 | - | 2 | 2 | 2 | - |
| CO5 | 3 | 3 | 2 | 2 | 2 | 2 | - | 2 | 2 | 2 | - |

MB1012

FINANCIAL MODELLING

L T P C
3 0 0 3

OBJECTIVES

- Making students to build financial models by including various fields of study viz financial Management and Derivatives.

UNIT I INTRODUCTION TO FINANCIAL MODELLING & BUILT INFUNCTIONS USING SPREAD SHEETS 9

Introduction to Financial Modeling- Need for Financial Modeling- Steps for effective financial modeling-Introduction to Time value of money & Look up array functions FV,PV,PMT,RATE, NPER, V lookup, H lookup,if, count if etc - Time value of Money Models: EMI with Single & Two Interest rates-Loan amortization modeling-Debenture redemption modeling.

CO1

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 Modeling-Bond redemption modeling -Equity share valuation: Multiple growth rate valuation modeling with and without growth rates.

CO2

UNIT III FINANCIAL MODELLING 9

AltMan Z score Bankruptcy Modeling-Indifference point model in Financial Break-even modeling -Corporate valuation modeling (Two stage growth)- Business Modeling for capital budgeting evaluation: Payback period, NPV, IRR and MIRR.

CO3

UNIT IV PORTFOLIO MODELLING 9

Ris , Beta and Annualized Return –Security Market Line Modeling –Portfolio risk calculation (Equal Proportions)- Portfolio risk optimization(varying proportions)-

CO4

Portfolio construction modeling.

UNIT V DERIVATIVE MODELLING

9

Option pay off modeling: Long and Short Call & Put options -Option pricing modeling (B-SModel)- Optimal Hedge Contract modeling.

CO5

TOTAL : 45 PERIODS

TEXT BOOKS

1. Wayne L Winston, "Microsoft Excel 2016-Data Analysis and Business Modelling", PHI publications, (Microsoft Press), NewDelhi,2017
2. Chandan Sen Gupta, "Financial analysis and Modelling –Using Excel and VBA", WileyPublishingHouse,2014

REFERENCE BOOKS

1. Ruzhbeh J Bodanwala , "Financial management using excel spread sheet", Taxman Allied services Pvt Ltd, New Delhi,3rd Edition2015.
2. Craig W Holden, "Excel Modelling in Investments" Pearson Prentice Hall, Pearson Inc,New Jersey,5th Edition 2015

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To develop fast efficient and accurate excel skills.
- CO2 To design and construct useful and robust financial modeling applications
- CO3 To recognize efficient financial budgeting and forecasting techniques.
- CO4 To familiarize the students with the valuation modeling of securities.
- CO5 The course establishes the platform for students to develop various portfolio models

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 3 | 2 | 2 | 2 | 2 | - | 2 | 2 | 2 | - |
| CO2 | 3 | 3 | 2 | 2 | 2 | 2 | - | 2 | 2 | 2 | - |
| CO3 | 3 | 3 | 2 | 2 | 2 | 2 | - | 2 | 2 | 2 | - |
| CO4 | 3 | 3 | 2 | 2 | 2 | 2 | - | 2 | 2 | 2 | - |
| CO5 | 3 | 3 | 2 | 2 | 2 | 2 | - | 2 | 2 | 2 | - |

MB1043

FINANCIAL ANALYTICS

L T P C

3 0 0 3

OBJECTIVES

- The objective of this course is to familiarize the students on financial analytics and how to apply financial analytics in real-world situations.

UNIT I FINANCIAL STATISTICS

9

Mean, Standard Deviation and Variance, Risk and Returns, Covariance and Correlation, Time value of money

CO1

| | | |
|---|-------------------------------------|------------|
| UNIT II | FINANCIAL FORECASTING | 9 |
| Introduction to Forecasting, Forecasting techniques - Naive Method, Linear Regression, Moving Averages, Exponential Smoothing, Autoregression, | | CO2 |
| UNIT III | FINANCIAL STATEMENT ANALYSIS | 9 |
| Techniques of Financial Statement: Horizontal, Vertical Analysis, Trend Analysis, Ratio Analysis, Liquidity, Profitability, Solvency and Turnover Ratio, Valuation of Ratios, Statement of Cash Flow, Classification of Cash Flow, Computing Net Cash Flow - Reporting and Interpretation using Spreadsheet. | | CO3 |
| UNIT IV | CAPITAL BUDGETING ANALYSIS | 9 |
| Capital Budgeting Techniques: Payback Period, Accounting Rate of Return, Net Present Value, Internal Rate of Return, Profitability Index, Decision Tree, Cash Flow in Capital Budgeting, Cost of Capital, Advance Capital Budgeting Techniques, Adjusted Present Value Approach, Competing Project Risk using Spreadsheets. | | CO4 |
| UNIT V | PORTFOLIO VALUATION | 9 |
| Valuation of bonds and shares, Capital Asset Pricing model, Pricing with CAPM, Estimating Beta and Security Market Line, Portfolio Evaluation - Sharpe's index Treynor's index, Jensen's index. | | CO5 |

TOTAL : 45 PERIODS

TEXT BOOKS

1. I.M. Pandey Financial Management, Vikas Publishing House Pvt. Ltd., 11th edition, 2018
2. M.Y. Khan and P.K. Jain Financial management, Text, Problems and cases Tata McGraw Hill, 8th edition, 2017.
3. Donald E. Fischer & Ronald J. Jordan, Security Analysis & Portfolio Management, PHI Learning., New Delhi, 8th edition, 2011

REFERENCE BOOKS

1. James C. Vanhorn e –Fundamentals of Financial Management –PHI Learning, 13th Edition, 2014.
2. Srivatsava, Mishra, Financial Management, Oxford University Press, 2012.
3. S. Kevin, Securities Analysis and Portfolio Management, PHI Learning, 2012
4. Prasannachandra, Investment analysis and Portfolio Management, Tata McGraw Hill, 2011.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|------------|--------------------------|-----|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 3 | 2 | 1 | - | - | - | 3 | 3 | 2 | - |
| CO2 | 3 | 3 | 3 | 1 | - | - | - | 3 | 3 | 2 | - |
| CO3 | 3 | 3 | 2 | 2 | - | - | - | 3 | 3 | 2 | - |
| CO4 | 3 | 3 | 3 | 3 | - | - | - | 3 | 3 | - | - |
| CO5 | 3 | 3 | 2 | 2 | - | - | 2 | 3 | 3 | - | - |

HUMAN RESOURCE MANAGEMENT ELECTIVES

MB1015

STRATEGIC HUMAN RESOURCE MANAGEMENT

L T P C

OBJECTIVES

To help students understand the transformation in the role of HR functions from being a support function to strategic function.

UNIT I CONTEXT OF SHRM

9

SHRM - SHRM models - strategic HRM vs Traditional HRM - Barriers to Strategic HR - Adopting an Investment Perspective – Understanding and Measuring Human capital-Human side of corporate strategies - strategic work redesign - Strategic Capability – Bench Marking. CO1

UNIT II HUMAN RESOURCE DEVELOPMENT

9

Meaning–Strategic framework for HRM and HRD–Vision, Mission and Values– Importance – Challenges to Organisations – HRD Functions - Roles of HRD Professionals -HRD Needs Assessment - HRD practices – Measures of HRD performance – Links to HR, Strategy and Business Goals – HRD Program Implementation and Evaluation – Recent trends–HRD Audit. CO2

UNIT III E-HRM

9

e-Employee profile – e- selection and recruitment - Virtual learning and Orientation – e –training and development – e-learning strategies - e- Performance management- and Compensation design - Use of mobile applications in HR functions – Development and Implementation of HRIS – Designing HR portals – Issues in employee privacy – Employee surveys online. CO3

UNIT IV CAREER & COMPETENCY DEVELOPMENT

9

Career Concepts – Roles – Career stages – Career planning and Process –Career development Models – Career Motivation and Enrichment – Managing Career plateaus-Designing Effective Career Development Systems – Competencies and Career Management Competency Mapping Models–Equity and Competency based Compensation. CO4

UNIT V EMPLOYEE COACHING & COUNSELING

9

Need for Coaching – Role of HR in coaching – Coaching and Performance – Skills for Effective Coaching–Coaching Effectiveness–Need for Counseling –Role of HR in Counseling - Components of Counseling Programs – Counseling Effectiveness – Employee Health and Welfare Programs. CO5

TOTAL : 45 PERIODS**TEXT BOOKS**

1. Strategic Human Resource Management 1St Edition 2015 by Mathur, SP , New Age international (P) Ltd.
2. Randy L. Desimone, Jon M. Werner – David M. Mathis, Human Resource Development, Cengage Learning, 7th edition, 2016.

REFERENCE BOOKS

1. Jeffrey A Mello, Strategic Human Resource Management, Cengage Learning, 3rd edition, 2011.
2. PaulBoselie.StrategicHumanResourceManagement.TataMcGrawHill.2011
3. RobertL. Mathis and John H. Jackson, Human Resource Management, Cengage Learning, 2007.
4. Pulak Das. Strategic Human Resource Management- A Resource Driven Perspective- Cengage Learning 4thIndian Reprint-2013.
5. Terresa Torres Coronas & Mario Arias Olivia. e-Human Resource Management- Managing Knowledge People- Idea GroupPublishing,2005.

6. Randall S Schuler and Susan E Jackson. Strategic Human Resource Management. Wiley Publications-2007.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To analyse the barriers to Strategic HR, and; to create Strategic Capability
- CO2 To measures HRD performance and to create HRD programs
- CO3 To design, develop and implement HRIS; to create e-Employee profile– e- selection and recruitment - Virtual learning and Orientation – e –training and development–e-learning strategies -e-Performance management- and Compensation design
- CO4 To design, develop and evaluate Career Development Systems, Competencies and Career Management
- CO5 To design, develop and evaluate coaching, counseling and Employee Health and Welfare Programs.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 3 | 3 | 2 | - | - | - | 3 | 3 | 3 | - |
| CO2 | 3 | 3 | 3 | 2 | - | - | - | 3 | 3 | 3 | - |
| CO3 | 3 | 3 | 3 | 2 | - | - | - | 3 | 3 | 3 | - |
| CO4 | 3 | 3 | 3 | 2 | - | - | 2 | 3 | 3 | 3 | 2 |
| CO5 | 3 | 3 | 3 | 2 | - | - | 2 | 3 | 3 | 3 | 2 |

MB1018

ORGANIZATIONAL DESIGN, CHANGE AND DEVELOPMENT

L T P C

3 0 0 3

OBJECTIVES

1. To help the students to gain knowledge about the concepts of change management and to acquire the skills required to manage any change effectively
2. To understand the concept and techniques of OD and to enable the skills for the application of OD in organizations

UNIT I ORGANIZATIONAL DESIGN

9

Organizational Design– Determinants– Components–Basic Challenges of design– Differentiation, Integration, Centralization, Decentralization, Standardization, Mutual adjustment -Mechanistic and Organic Structures- Technological and Environmental Impacts on Design-Importance of Design – Success and Failures in design.

CO1

UNIT II ORGANIZATIONAL CHANGE

9

Meaning, Nature, Forces for change- change agents- Change process-Types and forms of change –Models of change –Resistance to change –individual factors–organizational factors–techniques to overcome change-Change programs–job redesign.

CO2

UNIT III ORGANIZATIONAL DEVELOPMENT

9

Introduction- evolution- basic values and assumptions- foundations of OD- Process of OD- managing the phases of OD – Organizational diagnosis -Process- stages- Techniques-

CO3

Questionnaire, interview, workshop, task-force - collecting, analyzing – feedback of diagnostic information.

UNIT IV OD INTERVENTION 9

Human process interventions-Individual, group and inter-group human relations- structure and technological interventions- strategy interventions–sensitivity training–survey feedback, process consultation–team building – inter-group development **CO4**

UNIT V ORGANIZATIONAL EVOLUTION AND SUSTENANCE 9

Organizational life cycle – Models of transformation – Models of Organizational Decision making – Organizational Learning – Innovation, Intrapreneurship and Creativity-HR **CO5** implications.

TOTAL : 45 PERIODS

TEXT BOOKS

1. Wendell L. French, Cecil H. Bell, Jr, Veena Vohra - Organization Development : Behavioral Science Interventions for Organizational Improvement, Sixth Edition 2017
2. S. Ramnarayan, T. Venkateswara Rao, Kuldeep Singh: Organization Development: Interventions And Strategies, Sage Publications 2015

REFERENCE BOOKS

1. French & Bell: Organisational Development, McGraw-Hill, 2005
2. Rajiv Shaw: Surviving Tomorrow: Turnaround Strategies in Organisational Design and Development, Vikas Publishing House.
3. Thomas G. Cummings, Christopher G. Worley: Organisation Development and Change, Thomson Learning.
4. Change & Knowledge Management-R.L. Nandeshwar, Bala Krishna Jayasimha, Excel Books, 1st Ed.
5. Management of Organizational Change – K Harigopal – Response BOOKS, 2nd editon, 2006
6. Organizational, Design, and Change-Gareth R. Jones, 5th Edition, Pearson Education

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the fundamental components of organizational structure and design
To analyze the various dimensions of organizational change and techniques to overcome it
- CO2 To remember the concepts of organizational development and apply it techniques
- CO3 To apply the OD intervention techniques
- CO4 To understand the evolution and reason the sustenance of the organization

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|------------|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 3 | 3 | 1 | - | - | - | 3 | 3 | 3 | 1 |
| CO2 | 3 | 3 | 3 | 1 | - | - | - | 3 | 3 | 3 | 1 |

| | | | | | | | | | | | |
|------------|---|---|---|---|---|---|---|---|---|---|---|
| CO3 | 3 | 3 | 3 | 1 | - | - | 3 | 3 | 3 | 3 | 1 |
| CO4 | 3 | 3 | 3 | 1 | - | - | 2 | 3 | 3 | 3 | 1 |
| CO5 | 3 | 3 | 3 | 1 | - | - | - | 3 | 3 | 3 | 1 |

MB1042

HUMAN RESOURCE ANALYTICS

L T P C
3 0 0 3

OBJECTIVES

- To develop the ability of the learners to define and implement HR metrics that Sare aligned with the overall business strategy
- To know the different types of HR metrics and understand their respective impact and application
- To understand the impact and use of HR metrics and their connection with HR analytics
- To understand common workforce issues and resolving them using people analytics.

UNIT I INTRODUCTION TO HR ANALYTICS

9

HR analytics - People Analytics: Definition- context -stages of maturity - Human Capital in the Value Chain: impact on business. HR Analytics vs HR Metrics –HR metrics and KPIs.

CO1

UNIT II HR ANALYTICS I: RECRUITMENT

9

Recruitment Metrics : Fill-up ratio - Time to hire - Cost per hire - Early turnover -Employee referral hires - Agency hires - Lateral hires - Fulfillment ratio- Quality of hire- Recruitment to HR cost-Recruitment analysis.

CO2

UNIT III HR ANALYTICS II: TRAINING AND DEVELOPMENT

9

Training & Development Metrics: Percentage of employee trained- Internally and externally trained -Training hours and cost per employee - ROI - Optimising the ROI of HR Programs - Training and Development analysis.

CO3

UNIT IV HRANALYTICS III: EMPLOYEE ENGAGEMENT AND CAREER PROGRESSION

9

Employee Engagement Metrics: Talent Retention- Retention index- Voluntary and involuntary turnover-Turnover by department, grades, performance, and service tenure- Internal hired index- Engagement Survey Analysis. Career Progression Metrics: Promotion index- Rotation index- Career path index- Level wise succession readiness index.

CO4

UNIT V HR ANALYTICS IV: WORKFORCE DIVERSITY AND DEVELOPMENT

9

Workforce Diversity and Development Metrics : Employees per manager - Workforce age profiling -Workforce service profiling – Churn over index - Work force diversity index -Gender mix - Differently abled index- Revenue per employee - Operating cost per employee - PBT per employee - HR cost per employee- HR budget variance -Compensation to HR cost.

CO5

TOTAL : 45 PERIODS

TEXT BOOKS

1. Dipak Kumar Bhattacharyya, HR Analytics, Understanding Theories and Applications, SAGE Publications India, 2017.

2. Sesil, J. C., Applying advanced analytics to HR management decisions: Methods for selection, developing incentives, and improving collaboration. Upper Saddle River, New Jersey: Pearson Education, 2014.
3. Pease, G., & Beresford, B, Developing Human Capital: Using Analytics to Plan and Optimize Your Learning and Development Investments. Wiley, 2014.

REFERENCE BOOKS

1. JacFitzenz, The new HR Analytics, AMACOM, 2010.
2. Edwards M. R., & Edwards K, Predictive HR Analytics: Mastering the HR Metric. London: Kogan Page.2016.
3. Human Resources kit for Dummies–3rd edition–Max Messmer,2012
4. Phillips, J.,& Phillips, P.P, Making Human Capital Analytics Work: Measuring the ROI of Human Capital Processes and Outcomes.McGraw-Hill,2014.
5. HR Score card and Metrics, HBR, 2001.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To remember the basic concepts of HR Analytics
 CO2 To understand , apply and analyse how the HR Analytics apply in Recruitment
 CO3 To apply, and analyse how the HR Analytics apply in Training and Development
 CO4 To apply and analyse how the HR analytics help in Employee engagement and Career progression
 CO5 To evaluate the HR Analytics in Work force diversity and Development

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 3 | 3 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO2 | 3 | 3 | 3 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO3 | 3 | 3 | 3 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO4 | 3 | 3 | 3 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO5 | 3 | 3 | 3 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 1 |

MB1044 INDUSTRIAL RELATIONS AND LABOUR LEGISLATIONS L T P C
 3 0 0 3

OBJECTIVES

To explore contemporary knowledge and gain a conceptual understanding of industrial relations and labor legislation.

UNIT I INDUSTRIAL RELATIONS

Concepts- Importance- Industrial relations problems in the public sector- Growth of trade union- **CO1**

Code of conduct.

| | | |
|---|---|---------------------------|
| UNIT II | LAW RELATED TO INDUSTRIAL RELATIONS | 9 |
| The Industrial Employment (Standing Orders) Act 1946- Industrial Disputes Act 1947- Trade Unions Act 1926 | | CO2 |
| UNIT III | LAW RELATED TO SOCIAL SECURITY | 9 |
| Payment of Gratuity Act 1972 - Employees' Provident Funds Miscellaneous Provisions Act, 1952- Employees; State Insurance Act 1948 - Workmen Compensation Act 1923 | | CO3 |
| UNIT IV | LAW RELATED TO EQUALITY AND EMPOWERMENT OF WOMEN | 9 |
| The Equal Remuneration Act 1976 - Maternity Benefits Act 1961 | | CO4 |
| UNIT V | LAW RELATED TO SPECIFIC INDUSTRIES | 9 |
| Factories Act 1948 - Inter-State Migrant Workmen (Regulations of Employment and Conditions of Service) Act 1979 - Contract Labour (Regulations and Abolitions) Act 1970 | | CO5 |
| | | TOTAL : 45 PERIODS |

TEXT BOOKS

1. Tax Mann, Labour Laws, 2023.
2. Piyali Ghosh Shefali, Nandhan Industrial Relations and Labour Laws, McGraw Hill Education India

REFERENCE BOOKS

1. D.R. N. Sinha, Indu Balasinha & SemmaPriyadarshiniShekar, Industrial Relation, Trade unions and Labour Legislation, 2004.
2. ArunMonappa, Ranjeet Nambudiri, PatturajaSelvaraj. Industrial relations &Labour Laws. Tata McGraw Hill. 2012
3. Srivastava, Industrial Relations and Labour laws, Vikas, 2007.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the concept of industrial relations and code of conduct.
- CO2 To study the law related with industrial relations
- CO3 To analyse the social security system which is mandatory to the employees
- CO4 Ability to understand the law related with equality and empowerment of women.
- CO5 Identify the labour laws related with specific industries

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 2 | 2 | 1 | - | - | 2 | 2 | 1 | 3 | 1 | 2 |
| CO2 | - | 1 | 1 | - | - | 1 | 2 | 1 | 2 | - | 2 |
| CO3 | - | 1 | 1 | - | - | 1 | 2 | 1 | 2 | - | 2 |
| CO4 | - | 1 | 1 | - | - | 1 | 2 | 1 | 2 | - | 2 |
| CO5 | - | 1 | 1 | - | - | 1 | 2 | 1 | 1 | - | 3 |

MB1045

DIGITAL HUMAN RESOURCE MANAGEMENT

L T P C
3 0 0 3

OBJECTIVES-

- To enable students to learn about culture, values in the context of digital HRM and to understand the changes and challenges in digital HRM.

| | | |
|---|---------------------------------------|---------------------------|
| UNIT I | CONTEXT OF DIGITAL HRM | 9 |
| Digital HRM – meaning, concept, need, functions, process, roles, Tools and techniques of Digital HRM and its application. | | |
| UNIT II | DIGITAL HRM PROCESS | 9 |
| Modernization of work force- operational HR process, Gamification at work communication, collaboration and access to data analytics. | | |
| UNIT III | PEOPLE ANALYTICS | 9 |
| People analytics, Digital culture, Employee self- service app, recruitment through social media, Virtual Reality for Training , Augmented reality, AI and its Applications. | | |
| UNIT IV | DIGITAL HRM TRANSFORMATION | 9 |
| Digital HR Strategy and transformation; HR Technology implementation, HR Automation, Digital Employee Management, E- HRM. | | |
| UNIT V | RECENT TRENDS; EMERGING ISSUES | 9 |
| Change and challenges of Digital HRM, Recent Trends; Emerging Issues- Case studies. | | |
| | | CO5 |
| | | TOTAL : 45 PERIODS |

TEXT BOOKS

- Ashwini Upadhyay, Komal Khhhandelwal, Jeyanthu Iyengar, Revolution in Human Resource Management, Sage Publications India Pvt Ltd 1st Edition.

REFERENCE BOOKS

- Mike West, People Analytics, Wiley Publication
- Ramesh Soundararajan, Kuldeep Singh, HR Analytics, Sage Publications India Pvt Ltd.
- Raman Preet, Future of Human Resource Management, Wiley Publication.
- Stefan Guildenberg, Managing work in the Digital economy challenges, strategies and practices for the next decade, Springer 1st Edition.
- Terresa Torres Coronas & Mario Arias Olivia. e-Human Resource Management-Managing Knowledge People- Idea GroupPublishing,2005.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To analyse the need, functions, and tools of Digital HRM
 CO2 To design, develop and implement operational HR process, and Gamification in work place
 CO3 To design, develop and implement; People analytics – social media selection and - Virtual learning and AI Applications.
 CO4 To design, develop and evaluate HR Technology implementation, HR Automation, Digital Employee Management,
 CO5 To analyse the barriers and future of Digital HRM.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|------------|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO 1 | PSO2 | PSO3 |
| CO1 | 3 | 3 | 3 | 2 | 2 | 2 | - | 3 | 3 | 3 | - |

3. Cappeli Peter (2008) Talent on Demand –Managing Talent in an age of uncertainty .Harvard Business Publishing.
4. Awad.E.M and Ghaziri.H.M (2008) Knowledge management. Pearson education International.
5. Stuart Barnes (2002) Knowledge management System Theory and Practice. Thomson Learning.
6. Donald Hislop (2013) Knowledge management in organizations (3rd Edition). Oxford University press.
7. Sudhir Warier (2009). Knowledge management. Vikas Publishing house.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 Compare and contrast Human Resource Planning and Talent Acquisition Management.
 CO2 Identify the sources of recruitment for Talent Acquisition and distinguish between Talent Acquisition and Recruitment.
 CO3 Explain the Selection Process and the different types of tests for an effective selection.
 CO4 Illustrate the various interview methods and structure an Assessment Centre.
 CO5 Get a comprehensive picture of employees’ transition and significance of Succession Planning.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 3 | 2 | - | - | - | 1 | - | 3 | 1 | 1 |
| CO2 | 3 | 3 | 2 | 1 | - | 1 | 1 | - | 3 | 1 | 1 |
| CO3 | 3 | 3 | 2 | 1 | - | 1 | 1 | - | 3 | 1 | 1 |
| CO4 | 3 | 3 | 2 | 1 | 1 | 1 | 1 | - | 3 | 1 | 1 |
| CO5 | 3 | 3 | 2 | 1 | 1 | 1 | 1 | - | 3 | 1 | 1 |

BUSINESS ANALYTICS ELECTIVES

MB1022 DATA MINING FOR BUSINESS INTELLIGENCE **L T P C**
 3 0 0 3

OBJECTIVES

- To know how to derive meaning form huge volume of data and information
- To understand how knowledge discovering process is used in business decision making.

UNIT I INTRODUCTION

Data mining, Text mining, Web mining, Spatial mining, Process mining, Data warehouse and data marts.

9
CO1

UNIT II DATA MINING PROCESS

Data mining 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 cross-

9
CO2

validation, LOOCV, random sub sampling, and bootstrapping.

UNIT III PREDICTION TECHNIQUES 9

Data visualization, Time series– ARIMA, Winter Holts, Vector Autoregressive analysis, Multivariate regression analysis. **CO3**

UNIT IV CLASSIFICATION AND CLUSTERING TECHNIQUES 9

Classification - Decision trees, k nearest neighbor, Logistic regression, Discriminant analysis; Clustering; Market basket analysis; **CO4**

UNIT V MACHINE LEARNING AND AI 9

Genetic algorithms, Neural network, Fuzzy logic, Support Vector Machine, Optimization techniques– Ant Colony, Particle Swarm, DEA **CO5**

TOTAL : 45 PERIODS

TEXT BOOKS

1. Jaiwei Ham and Micheline Kamber, Data Mining concepts and techniques, Kauffmann Publishers 2006
2. Efraim Turban, Ramesh Sharda, Jay E.Aronson and David King, Business Intelligence, Prentice Hall, 2008.
3. W.H.Inmon, Building the Data Warehouse, fourth edition Wiley Indiapvt.Ltd.2005.
4. Ralph Kimball and Richard Merz, The data warehouse toolkit, John Wiley, 3rd edition, 2013.
5. Michel Berry and Gordon Linoff, Mastering Data mining, John Wiley and Sons Inc, 2nd Edition,2011

REFERENCE BOOKS

1. Michel Berry and Gordon Linoff, Data mining techniques for Marketing, Sales and Customer support, John Wiley, 2011
2. G.K.Gupta, Introduction to Data mining with Case Studies, Prentice hall of India,2011
3. Giudici, Applied Data mining – Statistical Methods for Business and Industry, John Wiley.2009
4. Elizabeth Vitt, Michael Luckevich Stacia Misner ,Business Intelligence,Microsoft,2011
5. MichalewiczZ.,SchmidtM.MichalewiczMandChiriacC, Adaptive Business Intelligence, Springer –Verlag, 2007
6. Galit Shmueli, Nitin R. Patel and Peter C. Bruce, Data Mining for Business Intelligence – Concepts, Techniques and Applications Wiley, India, 2010.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To remember and understand the various data mining techniques used in different domains.
- CO2 To understand how data mining process is used in business decision making.
- CO3 To apply and analyze the various prediction techniques
- CO4 To evaluate the kinds of patterns that can be discovered by association rule mining, classification and clustering.
- CO5 To create and evaluate a basic trainable neural network (or) a fuzzy logic system to design and manufacturing.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | PROGRAMME SPECIFIC OUTCOMES (PSOs) |
|-----|--------------------------|------------------------------------|
| | | |

| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
|------------|------|------|------|------|------|------|------|------|------|------|------|
| CO1 | 3 | 2 | 3 | 2 | - | - | - | 3 | 3 | 3 | - |
| CO2 | 3 | 2 | 3 | 2 | - | - | - | 3 | 3 | 3 | - |
| CO3 | 3 | 2 | 3 | 2 | - | - | - | 3 | 3 | 3 | - |
| CO4 | 3 | 2 | 3 | 2 | - | - | - | 3 | 3 | 3 | - |
| CO5 | 3 | 2 | 3 | 2 | - | - | - | 3 | 3 | 3 | - |

MB1023

BIG DATA ANALYTICS

L T P C
3 0 0 3

OBJECTIVES

- To understand the computational approaches to big data analytics
- To understand the various search methods and visualization techniques
- To learn to use various techniques for mining data stream
- To understand the applications using Map Reduce Concepts.

UNIT I INTRODUCTION TO BIG DATA

9

Introduction to Big Data Platform– Challenges of Conventional Systems- Intelligent data analysis –Nature of Data- Analytic Processes and Tools - Analysis vs Reporting..

CO1

UNIT II MINING DATA STREAMS

9

Introduction To Streams Concepts– Stream Data Model and Architecture- Stream Computing - Sampling Data in a Stream – Filtering Streams – Counting Distinct Elements in a Stream – Estimating Moments – Counting Oneness in a Window – Decaying Window - Real Time Analytics Platform (RTAP) Applications - Case Studies - Real Time Sentiment Analysis- Stock Market Predictions.

CO2

UNIT III HADOOP

9

History of Hadoop- the Hadoop Distributed File System – Components of Hadoop Analysing the Data with Hadoop- Scaling Out- Hadoop Streaming- Design of HDFS-Java interfaces to HDFS Basics- Developing a Map Reduce Application-How Map Reduce Works-Anatomy of a Map Reduce Job run-Failures-Job Scheduling-Shuffle and Sort – Task execution - Map Reduce Types and Formats-Map Reduce Features Hadoop environment.

CO3

UNIT IV FRAMEWORKS

9

Applications on Big Data Using Pig and Hive – Data processing operators in Pig – Hive services –Hive QL – Querying Data in Hive - fundamentals of HBase and Zoo Keeper - IBM Info Sphere Big Insights and Streams.

CO4

UNIT V VISUALIZATION TECHNIQUES

9

Predictive Analytics- Simple linear regression- Multiple linear regression -Interpretations of regression coefficients. Visualizations - Visual data analysis techniques- interaction techniques - Systems and applications.

CO5

TOTAL : 45 PERIODS

TEXT BOOKS

1. Frank J Ohlhorst, “Big Data Analytics: Turning Big Data into Big Money”, Wiley and SAS Business Series, 2013.
2. Colleen Mccue, “Data Mining and Predictive Analysis: Intelligence Gathering and Crime Analysis”, Elsevier, Second Edition, 2015.
3. Michael Berthold, David J. Hand, “Intelligent Data Analysis”, Springer, Second Edition, 2007.

- Anand Rajaraman and Jeffrey David Ullman, “Mining of Massive Datasets”, Cambridge University Press, 2014.

REFERENCE BOOKS

- BillFranks, “Taming the Big Data Tidal Wave: Finding Opportunities in Huge Data Streams with Advanced Analytics”, Wiley and SASBusinessSeries,2012.
- Paul Zikopoulos,Chris Eaton “Understanding Big Data: Analytics for Enterprise Class Hadoop and Streaming Data”, McGraw Hill, 2012.
- Paul Zikopoulos, Dirk de Roos, Krishnan Parasuraman, Thomas Deutsch , James Giles, David Corrigan, “Harness the Power of Big data - The big data platform”, McGraw Hill, McGraw-Hills born e Media, 2012.
- Glenn J. Myatt, “Making Sense of Data I: A Practical Guide to Exploratory Data Analysis and Data Mining”, John Wiley & Sons, Second Edition, 2014.
- Pete Warden, “Big Data Glossary”, O’Reilly,2011.
- Jiawei Han, Micheline Kamber “Data Mining Concepts and Techniques”, Elsevier, Third Edition, 2011.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To Understand the computational software’s and techniques for handling big data and to analyze the various report formats.
- CO2 To Remember the concepts, data model and architecture of streams and apply with various stream computing techniques
- CO3 To Understand core technical concepts related to Business Intelligence, Big Data Analytics along with Hadoop Architecture and Analyze to data for analytics
- CO4 To Understand and create the various application in Big Data
- CO5 To Understand the visualization Techniques and analysis with various charts

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO2 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO3 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO4 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO5 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |

MB1025 DEEP LEARNING AND ARTIFICIAL INTELLIGENCE

| | | | |
|----------|----------|----------|----------|
| L | T | P | C |
| 3 | 0 | 0 | 3 |

COURSE OBJECTIVES

- To expose various algorithms related to Deep Learning and Artificial Intelligence.
- To prepare students to apply suitable algorithm for the specified applications.

| | |
|---|------------|
| UNIT I DEEP NETWORKS | 9 |
| Deep Networks: Modern Practices: Deep Forward Networks: Example: Learning XOR - Gradient-Based Learning - Hidden Units - Architecture Design - Regularization for Deep Learning. | CO1 |
| UNIT II MODELS | 9 |
| Optimization for Training Deep Models: How Learning Differs from Pure Optimization - Challenges in Neural Network Optimization - Basic Algorithms - Parameter Initialization Strategies - Algorithms with Adaptive Learning Rates - Approximate Second-Order Methods - Optimization Strategies and Meta Algorithms. | CO2 |
| UNIT III INTELLIGENT SYSTEMS | 9 |
| Introduction to Artificial Intelligence: Intelligent Systems - Foundations of AI - Applications - Tic-Tac-Toe Game Playing - Problem Solving: State-Space Search and Control Strategies: Introduction - General Problem Solving - Exhaustive Searches - Heuristic Search Techniques. | CO3 |
| UNIT IV KNOWLEDGE REPRESENTATION | 9 |
| Advanced Problem-Solving Paradigm: Planning: Introduction - Types of Planning Systems - Knowledge Representation: Introduction - Approaches to Knowledge Representation - Knowledge Representation using Semantic Network - Knowledge Representation using Frames. | CO4 |
| UNIT V APPLICATIONS | 9 |
| Expert Systems and Applications: Blackboard Systems - Truth Maintenance Systems - Applications of Expert Systems - Machine-Learning Paradigms: Machine-Learning Systems - Supervised and Unsupervised Learnings. | CO5 |

TOTAL : 45 PERIODS

REFERENCE BOOKS

1. Jared P.L., R for Everyone - Advanced Analytics and Graphics, Addison Wesley Data and Analytics series, 2015.
2. Sandip Rakshit, R Programming for Beginners, McGraw Hill Education, 2017

COURSE OUTCOMES

Upon completion of the course, students will be able to

| | |
|-----|--|
| CO1 | To understand the modern practices on deep forward networks, Architecture designs and analyse the regularization for deep learning. |
| CO2 | To create the models to optimize and analyse the challenges in neural network optimization, approximate Second order models and Meta algorithms. |
| CO3 | To understand the foundations of the AI applications, Tic-tac-toe Game playing, Problem solving: state-space search, Exhaustive searches and to apply the heuristic search techniques. |
| CO4 | To understand the advanced problem solving paradigm, types of planning systems, knowledge representation using semantic network and frames. |
| CO5 | To apply the expert systems and applications like Blackboard systems, machine learning Paradigms and to Understand the supervised and unsupervised learnings. |

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | PROGRAMME SPECIFIC OUTCOMES (PSOs) |
|-----|--------------------------|------------------------------------|
| | | |

| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
|------------|------|------|------|------|------|------|------|------|------|------|------|
| CO1 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO2 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO3 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO4 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO5 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |

MB1027

MULTIVARIATE DATA ANALYSIS

L T P C

OBJECTIVES

- To know various multivariate data analysis techniques for business research.

UNIT I INTRODUCTION

9

Introduction – Basic concepts – 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

CO1

UNIT II PREPARING FOR MULTIVARIATE ANALYSIS

9

Introduction– Conceptualization of research problem– Identification of technique- Examination of variables and data – Measurement of variables and collection of data –Measurement of errors – Statistical significance of errors. Missing data – Approaches for dealing with missing data– Testing the assumptions of multivariate analysis–Incorporating non-metric data with dummy variables.

CO2

UNIT III MULTIPLE LINEAR REGRESSION ANALYSIS, FACTOR ANALYSIS

9

Multiple Linear Regression Analysis – Introduction – Basic concepts – Multiple linear regression model – Least square estimation – Inferences from the estimated regression function– Validation of the model. Factor Analysis: Definition– OBJECTIVE– Approaches to factor analysis – methods of estimation – Factor rotation – Factor scores -Sum of variance explained– interpretation of results

CO3

UNIT IV LATENT VARIABLE TECHNIQUES

9

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

CO4

UNIT V ADVANCED MULTIVARIATE TECHNIQUES

9

Multiple Discriminant Analysis, Logistic Regression, Cluster Analysis, Conjoint Analysis, multidimensional scaling.

CO5

TOTAL : 45 PERIODS

TEXT BOOKS

1. Joseph F Hair, Rolph E Anderson, Ronald L. Tatham & William C. Black, Multivariate Data Analysis, Pearson Education, New Delhi, 2005.
2. Barbara G. Tabachnick, Linda S. Fidell, Using Multivariate Statistics, 6th Edition, Pearson, 2012.

REFERENCE BOOKS

1. Richard A Johnson and Dean W. Wichern, Applied Multivariate Statistical Analysis, Prentice Hall, New Delhi, 2005.
2. David R Anderson, Dennis J Seveency, and Thomas A Williams, Statistics for Business and Economics, Thompson, Singapore, 2002

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the basic concepts and creating multivariate models using different models.
- CO2 To collect data for variables by creating survey instruments and evaluating the relationships between variables.
- CO3 To apply different multivariate analysis tools and techniques.
- CO4 To select and apply the latent variable techniques at the required places.
- CO5 To apply the advanced analyse techniques in organizational decision making

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
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| CO1 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO2 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO3 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO4 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO5 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |

MB1040

SOCIAL MEDIA AND WEB ANALYTICS

L T P C
3 0 0 3

COURSE OBJECTIVES

- To understand the practices and technology involved in web marketing in real time business environment.

UNIT I INTRODUCTION TO WEB AND SOCIAL MEDIA

9

Introduction - Web and social media - Website, Web apps - Social Media, Usability - User friendliness - Customer Experience - Web marketing, Competitive analysis - Web analytics framework - Analytics and outcomes, Competitive analysis.

CO1

UNIT II BUSINESS ENVIRONMENT

9

Data - Types of Data, primary data, secondary, Big Data - Data Analysis - tools used for analysis - descriptive statistics, comparing means, correlations, nonparametric tests

CO2

UNIT III MEASURING USER EXPERIENCE

9

Usability metrics - performance metrics, issues-based metrics, self-reported metrics - Planning and performing a usability study - study goals, user goals, metrics and evaluation methods, participants, data collection, data analysis, comparing alternative designs, comparing with competition, completing a task or transaction

CO3

UNIT IV WEB ANALYSIS AND METRICS

9

PULSE metrics on business and technical issues - Page views, Uptime, Latency, Seven-day active users HEART metrics - Happiness, Engagement, Adoption, Retention, and Task success on user behaviour issues - On-site web analytics, off-site web analytics, the goal-signal-metric

CO4

process.

UNIT V SOCIAL MEDIA ANALYTICS

9

Social media analytics - Reasons for the growth - Social media KPIs - reach and engagement, Performing social media analytics - Business goal, KPIs, data gathering, analysis, measure and feedback

CO5

TOTAL :45 PERIODS

TEXT BOOKS

1. Avinash Kaushik, Web Analytics 2.0: The Art of Online Accountability and Science of Customer Centricity, John Wiley & Sons
2. Tom Tullis, Bill Albert, Measuring the User Experience: Collecting, Analyzing, and Presenting Usability Metrics, Morgan Kaufmann

REFERENCE BOOKS

1. Jim Sterne, Social Media Metrics: How to Measure and Optimize Your Marketing Investment, John Wiley & Sons.
2. Brian Clifton, Advanced Web Metrics with Google Analytics, John Wiley & Sons; 3rd Edition edition

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the web and social media and analyse.
- CO2 To apply the analytical tools.
- CO3 To analyse and evaluate the performance metrics.
- CO4 To apply and analyse the issues of web analytics.
- CO5 To create the KPI.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|------------|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
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| CO2 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO3 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO4 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO5 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |

MB1027

MULTIVARIATE DATA ANALYSIS

L T P C

OBJECTIVES

- To know various multivariate data analysis techniques for business research.

UNIT I INTRODUCTION

9

Introduction – Basic concepts – 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 **CO1**

UNIT II PREPARING FOR MULTIVARIATE ANALYSIS 9

Introduction– Conceptualization of research problem– Identification of technique- Examination of variables and data – Measurement of variables and collection of data –Measurement of errors – Statistical significance of errors. Missing data – Approaches for dealing with missing data– Testing the assumptions of multivariate analysis–Incorporating non-metric data with dummy variables. **CO2**

UNIT III MULTIPLE LINEAR REGRESSION ANALYSIS, FACTOR ANALYSIS 9

Multiple Linear Regression Analysis – Introduction – Basic concepts – Multiple linear regression model – Least square estimation – Inferences from the estimated regression function– Validation of the model. Factor Analysis: Definition– OBJECTIVE– Approaches to factor analysis – methods of estimation – Factor rotation – Factor scores -Sum of variance explained– interpretation of results **CO3**

UNIT IV LATENT VARIABLE TECHNIQUES 9

Confirmatory Factor Analysis, Structural Equation modeling, Mediation models, Moderation models, Conditional processes, longitudinal studies, latent growth model, Bayesian inference **CO4**

UNIT V ADVANCED MULTIVARIATE TECHNIQUES 9

Multiple Discriminant Analysis, Logistic Regression, Cluster Analysis, Conjoint Analysis, multidimensional scaling. **CO5**

TOTAL : 45 PERIODS

TEXT BOOKS

3. Joseph F Hair, Rolph E Anderson, Ronald L. Tatham & William C. Black, Multivariate Data Analysis, Pearson Education, New Delhi, 2005.
4. Barbara G. Tabachnick, Linda S. Fidell, Using Multivariate Statistics, 6th Edition, Pearson, 2012.

REFERENCE BOOKS

3. Richard A Johnson and Dean W. Wichern, Applied Multivariate Statistical Analysis, Prentice Hall, New Delhi, 2005.
4. David R Anderson, Dennis J Seveency, and Thomas A Williams, Statistics for Business and Economics, Thompson, Singapore, 2002

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the basic concepts and creating multivariate models using different models.
- CO2 To collect data for variables by creating survey instruments and evaluating the relationships between variables.
- CO3 To apply different multivariate analysis tools and techniques.
- CO4 To select and apply the latent variable techniques at the required places.
- CO5 To apply the advanced analyse techniques in organizational decision making

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | PROGRAMME SPECIFIC OUTCOMES (PSOs) |
|-----|--------------------------|------------------------------------|
|-----|--------------------------|------------------------------------|

| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
|------------|------|------|------|------|------|------|------|------|------|------|------|
| CO1 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO2 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO3 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO4 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO5 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |

MB1040

SOCIAL MEDIA AND WEB ANALYTICS

L T P C
3 0 0 3

COURSE OBJECTIVES

- To understand the practices and technology involved in web marketing in real time business environment.

UNIT I INTRODUCTION TO WEB AND SOCIAL MEDIA

9

Introduction - Web and social media - Website, Web apps - Social Media, Usability - User friendliness - Customer Experience - Web marketing, Competitive analysis - Web analytics framework - Analytics and outcomes, Competitive analysis.

CO1

UNIT II BUSINESS ENVIRONMENT

9

Data - Types of Data, primary data, secondary, Big Data - Data Analysis - tools used for analysis - descriptive statistics, comparing means, correlations, nonparametric tests

CO2

UNIT III MEASURING USER EXPERIENCE

9

Usability metrics - performance metrics, issues-based metrics, self-reported metrics - Planning and performing a usability study - study goals, user goals, metrics and evaluation methods, participants, data collection, data analysis, comparing alternative designs, comparing with competition, completing a task or transaction

CO3

UNIT IV WEB ANALYSIS AND METRICS

9

PULSE metrics on business and technical issues - Page views, Uptime, Latency, Seven-day active users HEART metrics - Happiness, Engagement, Adoption, Retention, and Task success on user behaviour issues - On-site web analytics, off-site web analytics, the goal-signal-metric process.

CO4

UNIT V SOCIAL MEDIA ANALYTICS

9

Social media analytics - Reasons for the growth - Social media KPIs - reach and engagement, Performing social media analytics - Business goal, KPIs, data gathering, analysis, measure and feedback

CO5

TOTAL :45 PERIODS

TEXT BOOKS

- Avinash Kaushik, Web Analytics 2.0: The Art of Online Accountability and Science of Customer Centricity, John Wiley & Sons
- Tom Tullis, Bill Albert, Measuring the User Experience: Collecting, Analyzing, and Presenting Usability Metrics, Morgan Kaufmann

REFERENCE BOOKS

3. Jim Sterne, Social Media Metrics: How to Measure and Optimize Your Marketing Investment, John Wiley & Sons.
4. Brian Clifton, Advanced Web Metrics with Google Analytics, John Wiley & Sons; 3rd Edition edition

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the web and social media and analyse.
- CO2 To apply the analytical tools.
- CO3 To analyse and evaluate the performance metrics.
- CO4 To apply and analyse the issues of web analytics.
- CO5 To create the KPI.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO2 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO3 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO4 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO5 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |

MB1047

BUSINESS ANALYTICS AND TEXT MINING

L P T C
3 0 0 3

OBJECTIVES

- To learn the fundamentals of Text Mining, to understand the fundamentals Essential Programming concept in Business Analytics, fundamentals of python programming, errors in python and the concepts of Numerical Python

UNIT I INTRODUCTORY OVERVIEW OF TEXT MINING

9

Introductory -Data Mining vs. Text Mining -Text Mining and Text Characteristics-Predictive Text Analytics -Text Mining Problems -Prediction & Evaluation -Python as a Data Science Platform -Python for Analytics -Introduction to Python Installation -Jupyter Notebook Introduction

CO1

UNIT II PYTHON BASICS

9

Python Programming Features -Commands for common tasks and control-Essential Python programming concepts & language mechanics-Built in Capabilities of Python-Data structures: tuples, lists, dicts, and sets.

CO2

UNIT III BUILT IN CAPABILITIES OF PYTHON

9

Functions, Namespaces, Scope, Local functions, writing more reusable generic functions.

CO3

UNIT IV PYTHON EXCEPTIONS AND ERRORS

9

Generator-Errors & Exception Handling -Working with files-Numerical Python-N-dimensional array objects.

CO4

UNIT V NUMERICAL PYTHON

9

Vectorized array operations-File management using arrays-Linear algebra operations-Pseudo-random number generation-Random walks-Python pandas-Data structures: Series and Data Frame CO5

TOTAL : 45 PERIODS

TEXT BOOKS

1. Python for Data Analysis: Data Wrangling with Pandas, NumPy, and IPython by Wes McKinney (2017)

REFERENCE BOOKS

1. Fundamentals of Predictive Text Mining by Sholom M. Weiss, Nitin Indurkha, & Tong Zhang (2010/2015)
2. Text Analytics with Python: A Practical Real-World Approach to Gaining Actionable Insights from Your Data by Dipanjan Sarkar (2016)

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the fundamentals of Text Mining
- CO2 To understand the basics of python
- CO3 To get the insight knowledge of generic function in python
- CO4 To analyze and evaluate the exceptions and errors in python
- CO5 To understand the Data Structures and Data Frame

OPERATIONS MANAGEMENT ELECTIVES

MB1028

LOGISTICS MANAGEMENT

L T P C
3 0 0 3

OBJECTIVES

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

UNIT I Introduction 9

Definition and Scope of Logistics – Functions & Objectives – Customer Value Chain–Service Phases and attributes – Value added logistics services – Role of logistics in Competitive strategy– Customer Service. CO1

UNIT II DISTRIBUTION CHANNELS AND OUTSOURCING LOGISTICS 9

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. CO2

UNIT III TRANSPORTATION AND PACKAGING 9

Transportation System – Evolution, Infrastructure and Networks. Freight Management – Vehicle Routing – Containerization; Modal Characteristics - Inter-modal Operators and Transport Economies; International Logistics-objectives, importance in global economy, Characteristics of global supply chains, Incoterms. Selection of service provider; Packaging - Design considerations, Material and Cost. Packaging as Unitisation. Consumer and Industrial Packaging. CO3

UNIT IV PERFORMANCE MEASUREMENT AND COSTS 9
 Performance Measurement – Need, System, Levels and Dimensions. Internal and External Performance Measurement. Logistics Audit. Total Logistics Cost – Concept, Accounting Methods: Cost – Identification, Time Frame and Formatting. **CO4**

UNIT V CURRENT TRENDS 9
 Logistics Information Systems – Need, Characteristics and Design. E-Logistics – Structure and Operation. Logistics Resource Management eLRM. Automatic Identification Technologies; Reverse Logistics – Scope, design and as a competitive tool. Global Logistics –Operational and Strategic Issues, ocean and air transportation. Strategic logistics planning; Green Logistics. **CO5**

TOTAL : 45 PERIODS

TEXT BOOKS

1. Bowersox Donald J, Logistics Management – The Integrated Supply Chain Process, Tata Mc GrawHill, 2010
2. RonaldH.Ballou,BusinessLogisticsandSupplyChainManagement,PearsonEducation,5thEdition, 2007

REFERENCE BOOKS

1. Sople Vinod V, Logistics Management: The Supply Chain Imperative, Pearson Education, 3rd Edition, 2012.
2. Coyleetal, The Management of Business Logistics, Thomson Learning, 7th Edition, 2004.
3. Ailawadi C Sathish & Rakesh Singh, Logistics Management,PHI,2005.
4. Bloomberg David Jetal., Logistics, Prentice Hall India, 2005.
5. Pierre David, International Logistics, Biztantra, 2003.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 Understand the concepts of logistics
- CO2 Develop the skills in managing the distribution network and logistics partners to improve the supply chain practices
- CO3 Analyse the impact of transportation on logistics operations including carrier selection, route optimization freight consolidation and understanding the role of packaging in efficient logistics management
- CO4 Understanding the importance of performance management and cost management in logistics including the role of performance metrics and cost analysis in improving the supply chain efficiency
- CO5 Evaluate the impact of new technologies or market trends on logistics management practices

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|------------|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 2 | 3 | 2 | 2 | - | 1 | 3 | 3 | 2 | 1 |
| CO2 | 3 | 2 | 3 | 2 | 2 | - | 1 | 3 | 3 | 2 | 1 |
| CO3 | 3 | 2 | 3 | 2 | 2 | - | 1 | 3 | 3 | 2 | 1 |
| CO4 | 3 | 2 | 3 | 2 | 2 | - | 1 | 3 | 3 | 2 | 1 |

| | | | | | | | | | | | |
|-----|---|---|---|---|---|---|---|---|---|---|---|
| CO5 | 3 | 2 | 3 | 2 | 2 | - | 1 | 3 | 3 | 2 | 1 |
|-----|---|---|---|---|---|---|---|---|---|---|---|

MB1029

MATERIALS MANAGEMENT

L T P C
3 0 0 3

OBJECTIVES

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

UNIT I INTRODUCTION

9

Operating environment-aggregate planning-role, need, strategies, costs techniques, approaches master scheduling-manufacturing planning and control system-manufacturing resource planning enterprise resource planning-making the production plan.

CO1

UNIT II MATERIALS PLANNING

9

Materials requirements planning-bill of materials-resource requirement planning-manufacturing resource planning-capacity management-scheduling orders-production activity control-codification.

CO2

UNIT III INVENTORY MANAGEMENT

9

Policy Decisions-objectives-control -Retail Discounting Model, Newsvendor Model; EOQ and EBQ models for uniform and variable demand with and without shortages -Quantity discount models. Probabilistic inventory models

CO3

UNIT IV PURCHASING MANAGEMENT

9

Establishing specifications-selecting suppliers-price determination-forward buying-mixed buying strategy-price forecasting- buying seasonal commodities- purchasing under uncertainty-demand management-price forecasting- purchasing under uncertainty-purchasing of capital equipment international purchasing.

CO4

UNIT V WAREHOUSE MANAGEMENT

9

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

CO5

TOTAL : 45 PERIODS

TEXT BOOKS

1. S. N. Chary, Production and Operations Management, Tata McGraw Hill , 2012
2. J.R.Tony Arnold, Stephen N. Chapman, Lloyd M. Clive, Materials Management, Pearson, 2012.
- 3.

REFERENCE BOOKS

1. P. Gopalakrishnan, Purchasing and Materials Management, Tata McGraw Hill, 2012
2. A.K. Chitale and R.C. Gupta, Materials Management, Text and Cases, PHI Learning, 2nd Edition, 2006.
3. A.K. Datla, Materials Management, Procedure, Text and Cases, PHI Learning, 2nd Edition, 2006
4. Ajay K Garg, Production and Operations Management, Tata McGraw Hill , 2012
5. Ronald H. Ballou and Samir K. Srivastava, Business Logistics and Supply Chain Management, Pearson education, Fifth Edition.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the concepts and techniques in materials management
To understand the concept of materials planning and apply it for optimized ordering of materials
- CO2
- CO3 To understand and apply inventory management models for optimization of inventory
- CO4 To understand and analyse purchase decisions during certainty and uncertainty scenarios
To remember and understand warehousing function and apply the concepts for efficient warehousing
- CO5

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
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| CO1 | 3 | 2 | 3 | 2 | - | - | 1 | 3 | 3 | 2 | 1 |
| CO2 | 3 | 2 | 3 | 2 | - | - | 1 | 3 | 3 | 2 | 1 |
| CO3 | 3 | 2 | 3 | 2 | - | - | 1 | 3 | 3 | 2 | 1 |
| CO4 | 3 | 2 | 3 | 2 | - | - | 1 | 3 | 3 | 2 | 1 |
| CO5 | 3 | 2 | 3 | 2 | - | - | 1 | 3 | 3 | 2 | 1 |

MB1030

PRODUCT DESIGN

L T P C
3 0 0 3

OBJECTIVES

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

UNIT I PRODUCT DESIGN & DEVELOPMENT

9

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.

CO1

UNIT II PRODUCT CONCEPT

9

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

CO2

UNIT III PRODUCT DATA MANAGEMENT

9

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.

CO3

UNIT IV DESIGN TOOLS

9

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

CO4

model, financial analysis.

UNIT V PATENTS

9

Intellectual Property and Patents -Definitions, Patent Searches, Application, Patent Ownership and Transfer, Patent Infringement, New Developments and International Patents.

CO5

TOTAL : 45 PERIODS

TEXT BOOKS

1. Karl T. Ulrich, Steven D. Eppinger, Anita Goyal Product Design and Development, Tata McGraw – Hill, Fourth Edition, reprint 2009.

REFERENCE BOOKS

1. Kenneth B. Kahn, New Product Planning, Sage, 2010.
2. A.K. Chitale and R.C. Gupta, Product Design and Manufacturing, PHI, 2008.
3. Deborah E. Bouchoux, Intellectual Property Rights, Delmar, Cengage Learning, 2005.
4. Michael Grieves, Product Life Cycle Management, Tata McGraw Hill, 2006.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the needs of the customers and thereby develop characteristics of product to be designed
- CO2 To understand and analyze the methodology in the selection of product concept
- CO3 To analyze and evaluate the product data management and its implementation
- CO4 To apply the various tools available for design of product
- CO5 To understand the concept of patenting for new products and its procedure

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 2 | 3 | 2 | 2 | 2 | 1 | 3 | 3 | 2 | 1 |
| CO2 | 3 | 2 | 3 | 2 | 2 | 2 | 1 | 3 | 3 | 2 | 1 |
| CO3 | 3 | 2 | 3 | 2 | 2 | 2 | 1 | 3 | 3 | 2 | 1 |
| CO4 | 3 | 2 | 3 | 2 | 2 | 2 | 1 | 3 | 3 | 2 | 1 |
| CO5 | 3 | 2 | 3 | 2 | 2 | 2 | 1 | 3 | 3 | 2 | 1 |

MB1031

PROJECT MANAGEMENT

L T P C
3 0 0 3

OBJECTIVES

- 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.

CO1

| | | |
|---|---|----------|
| UNIT II | PLANNING, BUDGETING AND RISK MANAGEMENT | 9 |
| The Planning Process – Work Break down Structure. Cost Estimating and Budgeting - Process, Summaries, schedules and forecasts. Managing risks - concepts, identification, assessment and response planning. | | |
| UNIT III | SCHEDULING & RESOURCE ALLOCATION | 9 |
| PERT & CPM Networks - Project durations and floats - Crashing – Resource loading and leveling. Simulation for resource allocation. Goldratt’s Critical Chain | | |
| UNIT IV | PROJECT ORGANISATION & CONFLICT MANAGEMENT | 9 |
| Formal Organization Structure – Organization Design – Types of project organizations. Conflict – Origin & Consequences. Project Teams. Managing conflict – Team methods for resolving conflict. | | |
| UNIT V | CONTROL AND COMPLETION | 9 |
| Project Control – Process, Monitoring, Internal and External control, Performance analysis, Performance Index Monitoring. Project Evaluation, Reporting and Termination. Project success and failure - Lessons. | | |

TOTAL : 45 PERIODS

TEXT BOOKS

1. Clifford Gray and Erik Larson, Project Management, Tata McGraw Hill Edition, 2005.

REFERENCE BOOKS

1. John M. Nicholas, Project Management for Business and Technology - Principles and Practice, Second Edition, Pearson Education, 2006.
2. Gido and Clements, Successful Project Management, Second Edition, Thomson Learning, 2003.
3. Samuel J.M., Jack R.M., Scott M.S., Margaret M.S., and Gopalan M.R., Project Management, First Indian edition, Wiley-India, 2006.
4. Harvey Maylor, Project Management, Third Edition, Pearson Education, 2006.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the characteristics of project and teams and various stages of a project.
- CO2 To create the work breakdown structure and understand the fundamentals of cost and budget estimation methods
- CO3 To analyze the ways of completing projects on time and scheduling resources effectively
- CO4 To understand the organization structure & critically analyze conflicts and ways of resolving conflicts
- CO5 To understand reporting and control methods

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|------------|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 3 | 3 | 2 | 2 | - | - | 3 | 3 | 3 | - |
| CO2 | 3 | 3 | 3 | 2 | 2 | - | - | 3 | 3 | 3 | - |
| CO3 | 3 | 3 | 3 | 2 | 2 | - | - | 3 | 3 | 3 | - |
| CO4 | 3 | 3 | 3 | 2 | 2 | - | - | 3 | 3 | 3 | - |
| CO5 | 3 | 3 | 3 | 2 | 2 | - | - | 3 | 3 | 3 | - |

MB1032

SERVICE OPERATIONS MANAGEMENT

L T P C
3 0 0 3

OBJECTIVES

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

UNIT I INTRODUCTION

9

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.

CO1

UNIT II SERVICE DESIGN

9

New Service Development – Design elements – Service Blue-printing - process structure – generic approaches. Service Encounter – triad, creating service orientation, service profit chain; Front office Back-office Interface– service decoupling. Technology in services – self-service, automation, e-commerce, e-business, technology innovations.

CO2

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. Process Improvement –productivity improvement - DEA, quality tools, benchmarking, Quality improvement programs.

CO3

UNIT IV SERVICE FACILITY

9

Supporting facility -Service scape, Facility design – nature, objectives, process analysis, service facility layout. Service Facility Location – considerations, facility location techniques – metropolitan metric, Euclidean, centre of gravity, retail outlet location, location set covering problem. Vehicle routing and Scheduling.

CO4

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.

CO5

TOTAL : 45 PERIODS

TEXT BOOKS

1. James A. Fitzsimmons, Mona J, Fitzsimmons, Sanjeev Bordoloi, Service Management – Operations, Strategy, Information Technology, McGraw-Hill Education – 8th Edition 2018.

REFERENCE BOOKS

1. Richard D. Metters, Successful Service Operations Management, Cengage Learning, 2nd Edition, 2012.
2. Cengiz Haksever, Barry Render, Service Management, Pearson Education, 2013.
3. Robert Johnston, Graham Clark, Service Operations Management, Pearson Education, 2nd Edition, 2005.
4. Bill Hollins and Sadie Shinkins, Managing Service Operations, Sage, 2006.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the various concepts Services and apply the classification , strategy and role of information technology
- CO2 To analyze the role of technological innovations with regards to business
- CO3 To create service quality using models like SERVQUAL and analyze the process improvement and quality tools with respect to business standards
- CO4 To apply and analyse various facility design , routing and scheduling
- CO5 To analyse the real world applications and create automated models to be on par with the industry standards.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 3 | 3 | 2 | 2 | 2 | - | 3 | 3 | 3 | - |
| CO2 | 3 | 3 | 3 | 2 | 2 | 2 | - | 3 | 3 | 3 | - |
| CO3 | 3 | 3 | 3 | 2 | 2 | 2 | - | 3 | 3 | 3 | - |
| CO4 | 3 | 3 | 3 | 2 | 2 | 2 | - | 3 | 3 | 3 | - |
| CO5 | 3 | 3 | 3 | 2 | 2 | 2 | - | 3 | 3 | 3 | - |

MB1033

SUPPLY CHAIN MANAGEMENT

L T P C
3 0 0 3

OBJECTIVES

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

UNIT I INTRODUCTION

9

Supply Chain – Fundamentals –Evolution- Role in Economy - Importance - Decision Phases - Supplier- Manufacturer-Customer chain. - Enablers/ Drivers of Supply Chain Performance; Supply chain strategy - Supply Chain Performance Measures.

CO1

UNIT II STRATEGIC SOURCING

9

Outsourcing – Make Vs buy - Identifying core processes - Market Vs Hierarchy - Make Vs buy continuum -Sourcing strategy - Supplier Selection and Contract Negotiation. Creating a world class supply base- Supplier Development - World Wide Sourcing.

CO2

UNIT III SUPPLY CHAIN NETWORK

9

Distribution Network Design – Role - Factors Influencing Options, Value Addition – Distribution Strategies - Models for Facility Location and Capacity allocation. Distribution Center Location Models - Supply Chain Network optimization models; Impact of uncertainty on Network Design - Network Design decisions using Decision trees.

CO3

UNIT IV PLANNING DEMAND, INVENTORY AND SUPPLY

9

Managing supply chain cycle 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

CO4

UNIT V CURRENT TRENDS

9

Supply Chain Integration, SC process restructuring, IT in Supply Chain; Agile Supply Chains, Leagile supply chain, Green Supply Chain, Reverse Supply chain; Supply chain technology trends – AI, Advanced analytics, Internet of Things, Intelligent things, conversational systems, robotic process automation, immersive technologies, Blockchain.

CO5**TOTAL : 45 PERIODS****TEXT BOOKS**

2. Sunil Chopra, Peter Meindl and Dharam VirKalra, Supply Chain Management-Strategy Planning and Operation, Pearson Education, Sixth Edition, 2016.
3. Ballou Ronald H, Business Logistics and Supply Chain Management, Pearson Education, 5thEdition, 2007.

REFERENCE BOOKS

2. Janat Shah, Supply Chain Management – Text and Cases, Pearson Education, 2009
3. David Simchi-Levi, Philip Kaminsky, Edith Simchi-Levi, Designing and Managing the Supply Chain: Concepts, Strategies, and Cases, Tata McGraw-Hill, 2005.
4. Pierre David, International Logistics, Biztantra, 2003.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand and remember the concepts of Supply Chain and strategy formulation
 CO2 To analyse the sourcing strategy for better decision making
 CO3 To understand the different supply chain network models and evaluate the distribution network design using these optimization models
 CO4 To analyse inventory decisions in supply chain
 CO5 To understand the application of latest trends for better supply chain management practices

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 3 | 3 | 2 | 2 | - | 1 | 3 | 3 | 3 | 1 |
| CO2 | 3 | 3 | 3 | 2 | 2 | - | 1 | 3 | 3 | 3 | 1 |
| CO3 | 3 | 3 | 3 | 2 | 2 | - | 1 | 3 | 3 | 3 | 1 |
| CO4 | 3 | 3 | 3 | 2 | 2 | - | 1 | 3 | 3 | 3 | 1 |
| CO5 | 3 | 3 | 3 | 2 | 2 | - | 1 | 3 | 3 | 3 | 1 |

SYSTEMS MANAGEMENT ELECTIVES

MB1035

e-BUSINESS

| | | | |
|---|---|---|---|
| L | T | P | C |
| 3 | 0 | 0 | 3 |

OBJECTIVES

- To understand the practices and technology to start an online business.

| | | |
|-----------------|--|------------|
| UNIT I | INTRODUCTION TO e-BUSINESS | 8 |
| | e-business, e-business Vs e-commerce, Economic forces - advantages - myths - e-business models, design, develop and manage business, Web2.0 and Social Networking, Mobile Commerce, S-commerce | CO1 |
| UNIT II | TECHNOLOGY INFRASTRUCTURE | 10 |
| | Internet and World Wide Web, internet protocols - FTP, intranet and extranet, Information publishing technology - basics of web server hardware and software | CO2 |
| UNIT III | BUSINESS APPLICATIONS | 10 |
| | Consumer oriented e-business - e-tailing and models - Marketing on web - advertising - e-mail marketing, affiliated programs - e-CRM; online services, Business oriented e-business, governance, EDI on the internet, Delivery management system, Web Auctions, Virtual communities and Web portals - Social media marketing | CO3 |
| UNIT IV | e-BUSINESS PAYMENTS AND SECURITY | 9 |
| | E-payments - Characteristics of payment of systems, protocols, e-cash, e cheque and Micro payment systems - internet security - cryptography - security protocols - network security | CO4 |
| UNIT V | LEGAL AND PRIVACY ISSUES | 8 |
| | Legal, Ethics and privacy issues - Protection needs and methodology - consumer protection, cyberlaws, contract sand warranties, Taxation and encryption policies. | CO5 |

TOTAL: 45 PERIODS

TEXT BOOKS

1. Harvey M.Deitel, Paul J.Deitel, Kate Steinbuhler, e – business and e – commerce for managers, Pearson, 2011.
2. Efraim Turban, Jae K.Lee, David King, Ting Peng Liang, Deborrah Turban, Electronic Commerce– A managerial perspective, Pearson Education Asia, 2010.
3. Parag Kulkarni, Sunita Jahirabadkao, Pradeep Chande, ebusiness, Oxford University Press,2012.

REFERENCE BOOKS

1. Hentry Channel, E-Commerce – fundamentals and Applications, Wiley India Pvt Ltd, 2007.
2. Gary P.Schneider, Electronic commerce, Thomson course technology, Fourth annual edition, 2007
3. Bharat Bhasker, Electronic Commerce Frame work technologies and Applications, 3rdEdition. Tata McGraw Hill Publications, 2009
4. Kamlesh K.Bajaj and Debjani Nag, Ecommerce - the cutting edge of Business,Tata McGraw Hill Publications, 7th reprint, 2009.
5. Kalakotaetal, Frontiers of Electronic Commerce, Addison Wesley, 2004
6. Micheal Papaloelon and Peter Robert, e-business, WileyIndia, 2006.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the various concepts of E-business and to create the designs and business models
- CO2 To create different technology infrastructure and analyze basics of web server, hardware and software
- CO3 To analyze various business applications and understand virtual communities and web portals
- CO4 To analyze the tools for e-business and create cryptography and network security for payment systems
- CO5 To analyse the legal and privacy issues and understand the cyber laws with regards to taxation and encryption policies.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 2 | 2 | 2 | 1 | 1 | - | - | 1 | 2 | 2 | - |
| CO2 | 2 | 2 | 2 | 1 | 1 | - | - | 1 | 2 | 2 | - |
| CO3 | 2 | 2 | 2 | 1 | 1 | - | - | 1 | 2 | 2 | - |
| CO4 | 2 | 2 | 2 | 1 | 1 | - | - | 1 | 2 | 2 | - |
| CO5 | 2 | 2 | 2 | 1 | 1 | - | - | 1 | 2 | 2 | - |

MB1036

ENTERPRISE RESOURCE PLANNING

L T P C
3 0 0 3

OBJECTIVES

- To exhibit the theoretical aspects of Enterprise Resource Planning.
- To provide practical implication on ERP Suite implementation.

UNIT I INTRODUCTION

8

Overview of enterprise systems – Evolution – Risks and benefits – Fundamental technology – warehouse management.

CO1

UNIT II ERP SOLUTIONS AND FUNCTIONAL MODULES

10

Overview of ERP software solutions, BPR, Project management, Functional Modules - Organisational data, master data and document flow.

CO2

UNIT III ERP IMPLEMENTATION

10

Planning Evaluation and selection of ERP systems – Implementation lifecycle-ERP implementation, Methodology and Framework – Training – Data Migration. People Organization in implementation - Consultants, Vendors and Employees.

CO3

UNIT IV POST IMPLEMENTATION

8

Maintenance of ERP - Organizational and Industrial impact; Success and Failure factors of ERP Implementation.

CO4

UNIT V EMERGING TRENDS ON ERP

9

Extended ERP systems and ERP add-ons - CRM, SCM, Business analytics – Future trends in ERP systems – web enabled, Wireless technologies, cloud computing and Augmented reality.

CO5

TOTAL: 45 PERIODS

TEXT BOOKS

1. Alexis Leon, ERP demystified, second Edition Tata McGraw - Hill, 2008.
2. Simha R.Magal, JeffreyWord, Integrated Business processes with ERP systems, John Wiley & Sons, 2012.
3. Jagan Nathan Vaman, ERP in Practice, Tata McGraw - Hill, 2008

REFERENCE BOOKS

1. Alexis Leon, Enterprise Resource Planning, second edition, Tata McGraw-Hill, 2008.
2. Mahadeo Jaiswal and Ganesh Vanapalli, ERP Macmillan India, 2009
3. Vinod Kumar Grag and N.K.Venkitakrishnan, ERP-Concepts and Practice, Prentice Hall of India, 2006.

4. Summer, ERP, Pearson Education, 2008.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand risk and benefits associated with Enterprise Resource Planning.
- CO2 To design and develop ERP solutions and functional modules
- CO3 To analyse and implement ERP
- CO4 To analyse and evaluate the post implementation of ERP.
- CO5 To have knowledge of emerging trends on ERP

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 2 | 2 | 2 | 1 | 1 | - | - | 1 | 2 | 2 | - |
| CO2 | 2 | 2 | 2 | 1 | 1 | - | - | 1 | 2 | 2 | - |
| CO3 | 2 | 2 | 2 | 1 | 1 | - | - | 1 | 2 | 2 | - |
| CO4 | 2 | 2 | 2 | 1 | 1 | - | - | 1 | 2 | 2 | - |
| CO5 | 2 | 2 | 2 | 1 | 1 | - | - | 1 | 2 | 2 | - |

MB1037 SOFTWARE PROJECT AND QUALITY MANAGEMENT L T P C
3 0 0 3

OBJECTIVES

- To create and understanding on methodologies, tools, techniques, metrics, quality and risk issues in software project management.
- To provide the knowledge and necessary skills for taking up quality related task in Software projects.

UNIT I SPM CONCEPTS 9

Definition – components of SPM – challenges and opportunities – tools and techniques – managing human resource and technical resource – costing and pricing of projects – training and development–project management techniques. **CO1**

UNIT II SOFTWARE MEASUREMENTS 9

Monitoring & measurement of SW development – cost, size and time metrics – methods and tools for metrics – issues of metrics in multiple projects. **CO2**

UNIT III SOFTWARE QUALITY AND RISK ISSUES 9

Quality in SW development – quality assurance – quality standards and certifications. The risk issues in SW development and implementation – identification of risks – resolving and avoiding risks – tools and methods for identifying risk management. **CO3**

UNIT IV QUALITY PLANNING 9

Planning Concepts - Integrating Business and Quality Planning - Prerequisites to Quality Planning -The Planning Process. Define, Build, Implement and Improve Processes: Process Management **CO4**
 Concepts - Process Management Processes.

UNIT V QUALITY CONTROL PRACTICES**9**

Testing Concepts – Developing Testing Methodologies – Verification and Validation Methods - Software Change Control – Defect Management. Metrics and Measurement: Measurement Concepts - Measurement in Software - Variation and Process Capability - Risk Management - Implementing a Measurement Program.

CO5**TOTAL: 45 PERIODS****TEXT BOOKS**

1. Roger S. Pressman, Software Engineering A Practioners Approach, McGraw Hill International Edition, New Delhi, 7thEdition, 2010
2. Richard H. Thayer(Edited), Software Engineering Project Management, IEEE, John Wiley & Sons, 2nd edition, 2000

REFERENCE BOOKS

1. Bob Hughes, Mike Cotterell and Rajib Mall, Software Project Management, McGraw Hill Publishing Company, 6th Edition, 2017
2. Alan Gillies, Software Quality – Theory and Management, Thomson Learning, 3rd edition, 2011.
3. Stephen Kan, Metrics and Models in Software Quality Engineering, Pearson Education Asia, 8th Impression 2009.

COURSE OUTCOMES

Upon completion of the course, students will be able to

CO1 Understand and apply the project management concepts & techniques.

CO2 To analyse & evaluate the software development process.

CO3 Understand the risk issues in software development.

CO4 Apply the concepts in preparing the quality plan & documents.

CO5 Analyse and evaluate the quality of software product.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|------------|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 2 | 2 | 2 | 1 | 1 | - | - | 1 | 2 | 2 | - |
| CO2 | 2 | 2 | 2 | 1 | 1 | - | - | 1 | 2 | 2 | - |
| CO3 | 2 | 2 | 2 | 1 | 1 | - | - | 1 | 2 | 2 | - |
| CO4 | 2 | 2 | 2 | 1 | 1 | - | - | 1 | 2 | 2 | - |
| CO5 | 2 | 2 | 2 | 1 | 1 | - | - | 1 | 2 | 2 | - |

MB1038**INTERNET OF THINGS****L T P C****3 0 0 3****OBJECTIVES**

- To experiment the technical aspects of Internet of Things.
- To expose the application of Internet of Things.

UNIT I INTRODUCTION**9**

Introduction to Internet of Things - Physical Design of IoT - Logical Design of IoT - IoT Enabling Technologies - IoT Levels and Deployment Templates - Domain Specific to IoTs.

CO1

| | | |
|--|---|--------------------------|
| UNIT II | IoT ARCHITECTURE | 9 |
| ETSI, IETF, OGC architectures - IoT reference model - Domain model - information model - functional model – communication model - IoT reference architecture | | CO2 |
| UNIT III | BUILDING IoT | 9 |
| IoT Systems - Logical Design using Python - IoT Physical Devices and Endpoints: What is an IoT Device - Basic building blocks of an IoT device - Exemplary Device: Raspberry Pi - Programming Raspberry Pi with Python - Other IoT Devices | | CO3 |
| UNIT IV | IoT DATA PLATFORM | 9 |
| Data Analytics for IoT: Introduction - Apache Hadoop - Using Hadoop Map Reduce for Batch Data Analysis – Apache Oozie – Apache Spark – Tools for IoT- Introduction - Chef: Setting up Chef. | | CO4 |
| UNIT V | CASE STUDIES AND REAL-WORLD APPLICATIONS | 9 |
| IoT Physical Servers & Cloud Offerings - Case Studies Illustrating IoT Design: Introduction - Home Automation – Smart Cities – Environment – Agriculture – Productivity Applications. | | CO5 |
| | | TOTAL: 45 PERIODS |

TEXT BOOKS

1. Arshdeep Bahga, Vijay Madiseti, - Internet of Things – A hands - on approach, University Press, 2015
2. Dieter Uckelmann, Mark Harrison, Michahelles, Florian (Eds), - Architecting the Internet of Things, Springer, 2011.
3. Honbo Zhou, —The Internet of Things in the Cloud: A Middleware Perspective, CRC Press, 2012.

REFERENCE BOOKS

1. Jan Holler, Vlasios Tsiatsis, Catherine Mulligan, Stamatis, Karnouskos, Stefa Aves and David Boyle, "From Machine-to-Machine to the Internet of Things - Introduction to a New Age of Intelligence", Elsevier, 2014.
2. Olivier Hersent, David Boswarthick, Omar Elloumi, - The Internet of Things –Key applications and Protocols, Wiley, 2012
3. Adrian McEwen and Hakim Cassimally, “Designing the Internet of Things”, John Wiley & Sons, 2013.
4. Cuno Pfister, “Getting Started with the Internet of Things: Connecting Sensors and Micro controllers to the Cloud”, Maker Media, 2011.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the various concepts of IOT used in different organisations and to provide the designs of IOT for various purposes.
- CO2 To Create different IOT Models and analyse the business problems and give solution
- CO3 To create Logical design using Python and building blocks of an IOT device
- CO4 To analyze the tools for IOT and apply various data analytics tools for batch data analysis
- CO5 To analyse the real world applications and create automated design to be on par with the industry standards.

MAPPING OF COs WITH POs AND PSOs

1. Thomas M. Connolly and Carolyn E. Begg, Database Systems – A Practical Approach to Design, Implementation and Management, 6th edition, Pearson Education, 2015.
2. Jeffrey D. Ullman and Jennifer Widom, A First Course in Database Systems, 3rd edition, Pearson Education Asia, 2013.
3. Stefano Ceri and Giuseppe Pelagatti, Distributed Databases Principles and Systems, McGraw-Hill International Editions, 2008.
4. Rajesh Narang, Object Oriented Interfaces and Databases, 1st edition, Prentice Hall of India ,2004.
5. Mark L.Gillenson & el, Introduction to database management, 2nd edition, Wiley India Pvt. Ltd,2012
6. Charkrabarti, Advanced Database Management Systems, WileyIndiaPvtLtd,2011

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To apply different databases for various purposes.
- CO2 To apply the steps in database query processing with the objective of accessing the data from the database.
- CO3 To analyze the concepts of databases used in different locations with the intricacies of data access and providing data security in various networks.
- CO4 To analyze the insights in Object Oriented Database structure with different models to store and retrieve the data from different models in an organisation.
- CO5 To evaluate the data mining and data ware housing.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 2 | 2 | 2 | 1 | 1 | - | - | 1 | 2 | 2 | - |
| CO2 | 2 | 2 | 2 | 1 | 1 | - | - | 1 | 2 | 2 | - |
| CO3 | 2 | 2 | 2 | 1 | 1 | - | - | 1 | 2 | 2 | - |
| CO4 | 2 | 2 | 2 | 1 | 1 | - | - | 1 | 2 | 2 | - |
| CO5 | 2 | 2 | 2 | 1 | 1 | - | - | 1 | 2 | 2 | - |

MB1048

DATA MINING FOR BUSINESS ANALYTICS

L T P C
3 0 0 3

OBJECTIVES

- To know how to derive meaning from huge volume of data and information
- To understand how knowledge discovering process is used in business decision making.

UNIT I INTRODUCTION

9

Data Mining, Core Ideas in Data Mining, Introduction and Data Mining Process , Types of Data – Data Mining Functionalities – Interestingness of Patterns –Classification of Data Mining Systems

CO1

UNIT II DATA MINING

9

| | |
|--|------------|
| Data Mining Concepts and Applications - Data Mining Process- Data Mining Methods - Data Mining Software Tools - Data Mining Myths and Blunders. | CO2 |
| UNIT III DATA EXPLORATION AND VISUALIZATION | 9 |
| Data Exploration and Visualization : Data Exploration – Need , Data visualization – Uses – Data visualization in R Programming – Data Summaries | CO3 |
| UNIT IV BUSINESS ANALYTICS | 9 |
| Business Analysis -Business Analyst - The evolving role of the Business Analyst - The BA roadmap: different levels of business analysis - The basic rules of Business & Business Analysis - Classical Requirements and Tasks performed by Business Analysts. | CO4 |
| UNIT V ANALYTICS: EMERGING TRENDS AND FUTURE IMPACTS | 9 |
| Location-Based Analytics for Organizations. Analytics for Consumers. Recommendation Engines. The Web 2.0 Revolution and Online Social Networking. Cloud Computing and BI. Impacts of Analytics in Organizations: An Overview. Issues of Legality, Privacy, and Ethics. The Analytics Ecosystem | CO5 |

TOTAL : 45 PERIODS

TEXT BOOKS

1. Data Science and Big Data Analytics: Discovering, Analyzing, Visualizing and Presenting Data by EMC Education Services (2015)
2. Data Mining for Business Intelligence: Concepts, Techniques, and Applications in Microsoft Office Excel with XLMiner by Shmueli, G., Patel, N. R., & Bruce, P. C. (2010)
3. Pang-Ning Tan, Michael Steinbach, Vipin Kumar – Introduction to Data Mining – Pearson Education - Revised Edition 2015.
4. Haydn Thomas – Demonoid – Business Analysis Fundamentals – Pearson Education – 2015 Revised Edition

REFERENCE BOOKS

1. RN Prasad, Seema Acharaya - Fundamentals of Business Analytics – Wiley – Revised Edition 2015.
2. The Visual Display of Quantitative Information by Edward R. Tufte
3. Business Intelligence: Making Better Decisions Faster by Elizabeth Vitt , Michael Luckevich, Stacia Misner
4. Business Intelligence Competency Centers: A Team Approach to Maximizing Competitive Advantage (Hardcover)by Gloria J. Miller

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To remember and understand the Basics of Data Mining
- CO2 To understand how data mining process is used in business decision making.
- CO3 To apply and analyze the various data exploration and visualization techniques
- CO4 To Understand of Basics of Business Analytics
- CO5 To analyze the current trends and future impacts in field of Business Analytics

MAPPING OF COs WITH POs AND PSOs

| Cos | PROGRAMME OUTCOMES (POs) | PROGRAMME SPECIFIC OUTCOMES (PSOs) |
|-----|--------------------------|------------------------------------|
| | | |

REFERENCE BOOKS

1. Dr. Vasant Desai, "Small Scale Industries and Entrepreneurship", HPH, 2006.
2. Arya Kumar. Entrepreneurship, Pearson, 2012.
3. Prasanna Chandra, Projects Planning, Analysis, Selection, Implementation and Reviews, Tata McGraw-Hill, 8th edition, 2017.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the concepts of entrepreneurial competence to run the business efficiently.
To apply the various entrepreneurial policies and regulations based on the entrepreneurial environment.
- CO2 To analyse the capable of preparing business plan and undertake feasible projects.
- CO3 To create and develop their business ventures successfully.
- CO4 To evaluate and monitor the business effectively towards growth and development.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 2 | 2 | 1 | 1 | 2 | 1 | 3 | 3 | 2 | - |
| CO2 | 3 | 2 | 2 | 2 | 1 | 2 | 1 | 3 | 3 | 2 | - |
| CO3 | 3 | 2 | 2 | 2 | 1 | 2 | 1 | 3 | 3 | 2 | - |
| CO4 | 3 | 2 | 2 | 2 | 1 | 2 | 1 | 3 | 3 | 2 | - |
| CO5 | 3 | 2 | 2 | 2 | 1 | 2 | 1 | 3 | 3 | 2 | - |

MB1212 BUSINESS ETHICS AND CORPORATE GOVERNANCE **L T P C**
3 0 0 3

OBJECTIVES

- To have grounding on theory through the understanding of real-life situations and cases.

| | |
|--|------------|
| UNIT I INTRODUCTION | 9 |
| Definition & nature Business ethics, Characteristics, Ethical theories; Causes of unethical behavior; Ethical abuses; Work ethics; Code of conduct; Public good. | CO1 |
| UNIT II ETHICS THEORY AND BEYOND | 9 |
| Management of Ethics - Ethics analysis [Hosmer model]; Ethical dilemma; Ethics in practice - ethics for managers; Role and function of ethical managers- Comparative ethical behaviour of managers; Code of ethics; Competitiveness, organizational size, profitability and ethics; Cost of ethics in Corporate ethics evaluation. Business and ecological / environmental issues in the Indian context and case studies. | CO2 |
| UNIT III LEGAL ASPECTS OF ETHICS | 9 |
| Political – legal environment; Provisions of the Indian constitution pertaining to Business; Political setup – major characteristics and their implications for business. Social – cultural environment and their impact on business operations, Salient features of Indian culture and values. | CO3 |

UNIT IV ENVIRONMENTAL ETHICS 9

Economic Environment; Philosophy of economic growth and its implications for business, Main features of Economic Planning with respect to business; Industrial policy and framework of government contract over Business; Role of chamber of commerce and confederation of Indian Industries. **CO4**

UNIT V CORPORATE SOCIAL RESPONSIBILITY AND GOVERNANCE 9

Definition- Evolution- Need for CSR; Theoretical perspectives; Corporate citizenship; Business practices; Strategies for CSR; Challenges and implementation; Evolution of corporate governance; Governance practices and regulation; Structure and development of boards; Role of capital market and government; Governance ratings; Future of governance- innovative practices; Case studies with lessons learnt. **CO5**

TOTAL : 45 PERIODS

TEXT BOOKS

1. S.A. Sherlekar, Ethics in Management, Himalaya Publishing House, 2009.
2. William B. Werther and David B. Chandler, Strategic corporate social responsibility, Sage Publications Inc., 2011
3. Robert A.G. Monks and Nell Minow, Corporate governance, John Wiley and Sons, 2011.

REFERENCE BOOKS

1. W.H. Shaw, Business Ethics, Cengage Learning, 2007.
2. Beeslory, Michel and Evens, Corporate Social Responsibility, Taylor and Francis, 1978.
3. Philip Kotler and Nancy Lee, Corporate social responsibility: doing the most good for company and your cause, Wiley, 2005.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand ethical issues in workplace and be able to find solution.
- CO2 To understand ethical issues and the behavior to be followed in the corporate.
- CO3 To understand ethical issues in legal and social environment.
- CO4 To analyse ethical issues in economic and political environment.
- CO5 To evaluate ethical issues and practices in CSR.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|------------|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 2 | 2 | 1 | - | - | 1 | 3 | 3 | 2 | 3 |
| CO2 | 3 | 2 | 2 | 1 | - | - | 1 | 3 | 3 | 2 | 3 |
| CO3 | 3 | 2 | 2 | 1 | - | - | 1 | 3 | 3 | 2 | 3 |
| CO4 | 3 | 2 | 2 | 1 | - | - | 1 | 3 | 3 | 2 | 3 |
| CO5 | 3 | 2 | 2 | 1 | - | - | 1 | 3 | 3 | 2 | 3 |

MB1213

EVENT MANAGEMENT

L T P C
3 0 0 3

OBJECTIVES

- This course is designed to provide an introduction to the principles of event management. The course aims to impart knowledge on the various events and how these events can be organized successfully.

UNIT I EVENT CONTEXT

9

History& Evolution–Types of events–MICE Types of Meeting, Trade Shows, Conventions, Exhibitions- Structure of event industry – Event Management as a profession –Perspectives on event: Government, Corporate & Community – Code of Ethics.

CO1

UNIT II EVENT PLANNING & LEGAL ISSUES

9

Conceptualizing the event – Host, sponsor, Media, Guest, Participants, Spectators – Crew – Design of concept – Theme and content development – Visualization – Event objectives –Initial planning – Budgeting – Event design and budget checklist – Preparation of functionalsheets– Timing–ContractsandAgreements–Insurance, Regulation,Licence and Permits–Negotiation.

CO2

UNIT III EVENT MARKETING

9

Role of StrategicMarketingPlanning-Pricing–MarketingCommunicationMethods& budget – Elements of marketing communication – Managing Marketing Communication –Role of Internet – Sponsorship – Event sponsorship – Strategy – Managing Sponsorships –Measuring& Evaluating sponsorship.

CO3

UNIT IV EVENT OPERATION

9

Site Selection–Types of location–Venue Requirements–Room, Stage, Audi- Visual, Lighting, Performers, Decors, Caterer, Photography & Videography – Protocols – Guest list –Guest demographics – Children at event – Invitation – Media – Freelance Event Operation –Road show - Food & Beverage – Entertainment – Event Logistics – Supply of facilities –Onsite logistics– Control of event logistics– Evaluation & Logistics.

CO4

UNIT V SAFETY & EVENT EVALUATION

9

Risk assessment–Safety officer, Medical Manager –Venue, Structural safety –Food safety –Occupational safety–Fire Prevention–Sanitary facilities–Vehicle traffic Waste Management.EventImpact–EventEvaluationProcess–ServiceQuality-CustomerSatisfaction.

CO5

TOTAL: 45 PERIODS

TEXT BOOKS

1. Lynn Van Der Wagen, Event Management for Tourism, Cultural Business & SportingEvents,4th Edition, Pearson Publications, 2014.
2. Lynn Van Der Wagen, & Brenda R. Carlos, Successful Event Management.
3. Judy Allen, Event Planning2nd Edition, Wiley &Sons, Canada, 2014.
4. G.A.J. Bowdin, Event Management, Elseiver Butterworth
5. JohnBeech, Sebastian Kaiser & Robert Kaspar, The Business of Events Management, Pearson Publication, 2014.

REFERENCE BOOKS

1. Judy, Event Planning Ethics and Etiquette: A Principled Approach to the Business of Special Event Management, 2014.
2. Shannon Kilkenny, The complete guide to successful event planning.
3. Julia Ruther ford Silvers, Professional Event Coordination, The Wiley Event Management Series. Allison, The Event Marketing Handbook: Beyond Logistics& Planning

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the evolution of event management and their types.
To create event plans and analyse various activities relating to implementation of events and create budgets.
- CO2 To apply marketing mix for various types of events and analyse the various sponsorship requirements for an event.
- CO3 To analyse the various event operations requirements for the conduct of an event.
- CO4 To evaluate the various risk and safety issues associated with event industry.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|-----|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 3 | 2 | 1 |
| CO2 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 3 | 2 | 1 |
| CO3 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 3 | 2 | 1 |
| CO4 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 3 | 2 | 1 |
| CO5 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 3 | 2 | 1 |

MB1214

SUSTAINABILITY MANAGEMENT

L T P C
3 0 0 3

OBJECTIVES

- To provide students with fundamental knowledge of the notion of corporate sustainability.
- To determine how organizations impacts on the environment and socio technical systems, the relationship between social and environmental performance and competitiveness, the approaches and methods.

UNIT I MANAGEMENT OF SUSTAINABILITY

9

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. CO1

UNIT II CORPORATE SUSTAINABILITY AND RESPONSIBILITY

9

Corporate sustainability perimeter, corporate sustainability institutional framework, integration of sustainability into strategic planning and regular business practices, fundamentals of stakeholder engagement. CO2

UNIT III SUSTAINABILITY MANAGEMENT: STRATEGIES AND APPROACHES

10

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 CO3

innovation processes; Sustainable Supply Chain Management and Procurement.

UNIT IV SUSTAINABILITY AND INNOVATION 8

Socio technical transitions and sustainability, Sustainable entrepreneurship, Sustainable pioneers in green market niches, Smart communities and smart specializations. **CO4**

UNIT V SUSTAINABLE MANAGEMENT OF RESOURCES, COMMODITIES AND COMMONS 9

Energy management, Water management, Waste management. **CO5**

TOTAL : 45 PERIODS

TEXT BOOKS

1. Daddi, T., Iraldo, F., Testa, Environmental Certification for Organizations and Products: Management, 2015
2. Christian N.Madu, Handbook of Sustainability Management 2012
3. Petra Molthan-Hill, The Business Student's Guide to Sustainable Management: Principles and Practice, 2014.

REFERENCE BOOKS

- 1.Margaret Robertson, Sustainability Principles and Practice, 2014
- 2.Peter Rogers, An Introduction to Sustainable Development, 2006

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand sustainability management as an approach to aid in evaluating and minimizing environmental impacts while achieving the expected social impact
- CO2 To apply sustainability into strategic planning and regular business practices
- CO3 To apply and evaluate sustainability management strategies
- CO4 Knowledge of innovative practices in sustainable business and community management
- CO5 Deep understanding of sustainable management of resources and commodities

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|------------|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 2 | 2 | 1 | - | - | - | 3 | 3 | 2 | - |
| CO2 | 3 | 2 | 2 | 1 | - | - | - | 3 | 3 | 2 | - |
| CO3 | 3 | 2 | 2 | 1 | - | - | - | 3 | 3 | 2 | - |
| CO4 | 3 | 2 | 2 | 1 | - | - | - | 3 | 3 | 2 | - |
| CO5 | 3 | 2 | 2 | 1 | - | - | - | 3 | 3 | 2 | - |

OBJECTIVES

- To study the fundamentals of R programming to apply in quantitative analysis.

| | | |
|---|--|------------|
| UNIT I | GETTING STARTED WITH R | 9 |
| Installing R - The R environment - R packages - Basics of R - Data Structures - Reading data into R- Graphics in R | | CO1 |
| UNIT II | FUNCTIONS AND STATEMENTS | 9 |
| Writing R functions - Control Statements (if and else, switch, if else, compound tests) -Loops in R (for, while, controlling loops) -Applications using the functions and loops | | CO2 |
| UNIT III | DATA MANIPULATION AND ANALYSIS | 9 |
| Group manipulation - Data Reshaping - Manipulating Strings - Basic Statistics using R (Summaries, Correlation, t-tests, ANOVA) | | CO3 |
| UNIT IV | LINEAR MODELS USING R | 9 |
| Linear Models - Simple and Multiple regression, GLM - Logit Regression, Model diagnostics-Residuals, Cross validation, Bootstrapping. | | CO4 |
| UNIT V | NON-LINEAR MODELS, TIME SERIES AND CLUSTERING USING R | 9 |
| Nonlinear Models - Non-Linear least square, Splines, Generalised Additive Models, Decision trees, Random forests. Time Series - Autoregressive moving average, VAR, GARCH. Clustering -K means, PAM and Hierarchical Clustering | | CO5 |

TOTAL : 45 PERIODS**TEXT BOOKS**

- Jared P.L., R for Everyone - Advanced Analytics and Graphics, Addison Wesley Data and Analytics series, 2015.

REFERENCE BOOKS

- Sandip Rakshit, R Programming for Beginners, McGraw Hill Education,2017

COURSE OUTCOMES**Upon completion of the course, students will be able to**

- CO1 To install and understand the basics in R, data structures and graphics in R.
 CO2 To apply the R functions, statements and loops in analyses.
 CO3 To evaluate the basic statistical analytics like summary correlation, t-tests and ANOVA.
 CO4 To create the linear models using R in solving the business programs.
 CO5 To enhance the knowledge on Non-linear models in applying them to solve the organizational problems.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|------------|--------------------------|------|------|------|------|------|------|------|------------------------------------|------|------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO2 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO3 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |

| | | | | | | | | | | | |
|-----|---|---|---|---|---|---|---|---|---|---|---|
| CO4 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |
| CO5 | 2 | 2 | 3 | 2 | - | - | 1 | 3 | 2 | 3 | - |

MB1034

QUALITY MANAGEMENT

L T P C
3 0 0 3

OBJECTIVES

- To learn the quality philosophies and tools in the managerial perspective.

| | |
|---|-----|
| UNIT I INTRODUCTION | 9 |
| Quality – vision, mission and policy statements. Customer Focus – customer perception of quality, Translating needs into requirements, customer retention. Dimensions of product and service quality. Cost of quality. | CO1 |
| UNIT II PRINCIPLES AND PHILOSOPHIES OF QUALITY MANAGEMENT | 9 |
| Overview of the contributions of Deming, Juran Crosby, Masaaki Imai, Feigenbaum, Ishikawa, Taguchi techniques – introduction, loss function, parameter and tolerance design, signal to noise ratio. Concepts of Quality circle, Japanese 5S principles and 8D methodology. | CO2 |
| UNIT III STATISTICAL PROCESS CONTROL | 9 |
| Meaning and significance of statistical process control (SPC) – construction of control charts for variables and attributed. Process capability – meaning, significance and measurement – Six sigma - concepts of process capability. Reliability concepts – definitions, reliability in series and parallel, product life characteristics curve. Total productive maintenance (TMP), Terotechnology. Business process Improvement (BPI) – principles, applications, reengineering process, benefits and limitations. | CO3 |
| UNIT IV TOOLS AND TECHNIQUES FOR QUALITY MANAGEMENT | 9 |
| Quality functions development (QFD) – Benefits, Voice of customer, information organization, House of quality (HOQ), building a HOQ, QFD process. Failure mode effect analysis (FMEA) – requirements of reliability, failure rate, FMEA stages, design, process and documentation. Seven Tools (old & new). Bench marking and POKA YOKE. | CO4 |
| UNIT V QUALITY SYSTEMS ORGANIZING AND IMPLEMENTATION | 9 |
| Introduction to IS/ISO 9004:2000 – quality management systems – guidelines for performance improvements. Quality Audits. TQM culture, Leadership – quality council, employee involvement, motivation, empowerment, recognition and reward - TQM framework, benefits, awareness and obstacles. | CO5 |

TOTAL : 45 PERIODS

TEXT BOOKS

- Dale H.Besterfield, Carol Besterfield – Michna, Glen H. Besterfield, Mary Besterfield – Sacre, Hermant – Urdhwareshe, Rashmi Urdhwareshe, Total Quality Management, Revised Third edition, Pearson Education, 2011
- Shridhara Bhat K, Total Quality Management – Text and Cases, Himalaya Publishing House, II Edition 2010

REFERENCE BOOKS

- Douglas C. Montgomery, Introduction to Statistical Quality Control, Wiley Student Edition, 4th Edition, Wiley India Pvt. Limited, 2008.
- James R. Evans and William M. Lindsay, The Management and Control of Quality, Sixth Edition, Thomson, 2005.

3. Poornima M.Charantimath, Total Quality Management, Pearson Education, Second Edition , 2011
4. Indian standard – quality management systems – Guidelines for performance improvement (Fifth Revision), Bureau of Indian standards, New Delhi.

COURSE OUTCOMES

Upon completion of the course, students will be able to

- CO1 To understand the need for quality, evaluate the dimensions of quality and create quality products and services that delights the customers.
- CO2 To understand the principles and philosophies contributed by quality gurus and apply in practice.
- CO3 To evaluate the quality of process product and service using TQM tools and statistical methods.
- CO4 To analyse customer needs and create quality products and services that delights the customers by applying TQM tools.
- CO5 To apply quality standards.

MAPPING OF COs WITH POs AND PSOs

| COs | PROGRAMME OUTCOMES (POs) | | | | | | | | PROGRAMME SPECIFIC OUTCOMES (PSOs) | | |
|------------|---------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---|-------------|-------------|
| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 2 | 3 | 2 | 2 | - | - | 3 | 3 | 3 | - |
| CO2 | 3 | 2 | 3 | 2 | 2 | - | - | 3 | 3 | 3 | - |
| CO3 | 3 | 2 | 3 | 2 | 2 | - | - | 3 | 3 | 3 | - |
| CO4 | 3 | 2 | 3 | 2 | 2 | - | - | 3 | 3 | 3 | - |
| CO5 | 3 | 2 | 3 | 2 | 2 | - | - | 3 | 3 | 3 | - |