MASTER OF BUSINESS ADMINISTRATION

MBA Year-II Semester –III

	MDA Teat-II	Semeste		1	
Course Code	Course Title	Nature	Credits	HPW (Th+Tu+P)	Max Marks (CIE+SEE)
MB301	Operations Management	Core	4	4Th + 1 Tu	30+70
MB302	E- Global Business	Core	4	4Th + 1 Tu	30+70
MB303	Total Quality Management	Core	4	4Th + 1 Tu	30+70
MB304-F-I MB304-F-II	Finance Investment Management Financial System & Services	Elective Elective	5 5	4Th + 1 Tu 4Th + 1 Tu	30+70 30+70
	Marketing Marketing Engineering Advertisement and Retail	Elective	5	4Th + 1 Tu	30+70
	Management	Elective	5	4Th + 1 Tu	30+70
MB304-HR-I MB304-HR-II	Human Resources Compensation Management Industrial Relations and	Elective	5	4Th + 1 Tu	30+70
	Labour Laws	Elective	5	4Th + 1 Tu	30+70
MB-304-E-I	Entrepreneurship Business Feasibility & Analysis	Elective	5	4Th + 1 Tu	30+70
MB304-E-II	Innovation & Design	Elective	5	4Th + 1 Tu	30+70
MB304-S-I	Thinking Systems with Business Analytics Data Base Management	Elective	5	3Th + 2P+1 Tu	30+20 +50
MB304-S-II	Systems Business Analytics	Elective	5	4Th + 1 Tu	30+70
CS301	Case Study		2		50
RD301	Research Design		1		25
PS301	Progress Seminar		1		25
Semester Credits			26		600
Total Credits at the end of III Semester			76		1800



*Research Design and Progress Seminar should be evaluated for 25 marks each and then converted to Grade.

Two Case Studies will be conducted both for Core and Elective. Presentations may be conducted in Teams. Evaluation must be done on the basis of participation, conceptual knowledge, team cohesiveness, analytical skills, discussion and presentation skills. **Each Case study should be evaluated for 25 Marks.**



SEMESTER-III PAPER CODE – MB 301 Course: OPERATIONS MANAGEMENT

UNIT-I Introduction to Production and Operations Management:

Introduction, Objectives, Scope and Differences among Production and Operations Management. Historical evolution of Production and Operations Management.

Characteristics of Modern Operation functions. Recent trends in Production and Operations Management. Operations Management interaction with other functional areas of management. The transformation Process: Manufacturing, Service and Hybrid Agile Manufacturing.

UNIT-II Operations Planning:

PPC Introduction, Objectives, Basic types of Production Control, Capacity planning, Capacity Requirement,

Resources aggregate planning, MPS, MRP-I, MRP-II, Economic Batch quantity, Lean operations, JIT, Line balancing, ERP.

UNIT-III Designing and Managing Operational systems:

Introduction to product design, importance, objective, factors influencing, characteristics of good product design. Process design and selection, process planning, process strategy, product life cycle versus process life cycle.

Work Study, Method Study, Time study, Motion Study and work measurement. Facility location, Facility layout, types of layouts, Job Sequencing, Johnson's Algorithm, n jobs two machines, n jobs three machines, n jobs m machines, (Problems) Scheduling,

UNIT-IV Productivity, Quality and Maintenance Management:

Productivity, importance, measurement of productivity, tools to increase productivity, factors affecting industrial productivity, TQM, essentials, principles, scope and ISO standards basics. Statistical Quality Control (SQC), Control charts for variables and attributes (Problems).

Break Down Maintenance, Preventive Maintenance, Replacement of machines, Replacement Models. when money's worth is not considered in capital cost of the Asset, when money's worth is considered in capital cost of the Asset, Individual and Group replacement (problems)

UNIT-V Inventory Control and Stores Management:

Role and Importance of inventory, Inventory planning and control, Inventory decisions - Economic Order Quantity (EOQ), Selective Inventory Control, Safety Stock and Reorder Level and Inventory models-Inventory analysis and control systems: ABC, (Problems) VED, FNSD analysis, Just In Time (JIT)

Stores Management: Functions of stores and Materials control. Classification, codification, simplification and standardization of materials, Bin card, Double-Bin and stores Ledger. Evolution of Computer Based Stores Management and emerging trends in stores management.



- 1. Nigel Slack, Stuart Chambers and Robert Johnston Operations management, Prentice Hall. Sixth edition
- 2. Panner Selvem Production and operations management, Prentice Hall of India
- 3. Upendra Kachru Operations management Excel Publications.
- 4. Martin K. Starr: Production & Operations management, Wiley India, New Delhi.
- 5. Buffa, S. Elwood and Sarin, K. Rakesh Modern Production/Operations Management, John Wiley & Sons.
- 6. Chunnawals Production & operations management, Himalaya Publications.
- 7. Kanishka bedi-Production & operations management, Oxford University Press.
- 8. Adam EE & Ebert RJ Production and operations management, 6th ed., Prentice hall of India.
- 9. Chary, S.N. Production & Operations management, New Delhi, Tata McGraw Hill
- 10. Manoj Kumar Sarkar Production & Operations Management, Jaico Publisher.
- 11. P. Rama Murthy Production and Operations Management, new age international.
- 12. Gaither N. and Frazier, G., Operations Management, ed. ix, Thomson.
- 13. R.Dan Reid, Nada R.Sanders, "Operations Management: An Integrated Approach", 7th edition, Wiley Publications.
- 14. NVS Raju, Operations Management, BS publications



PAPER CODE:MB 302 Course: E-Global Business

Course Objectives:

- 1. To understand the fundamentals of e-commerce and its impact on global business.
- 2. To explore the challenges and opportunities associated with conducting business in a digital environment.
- 3. To analyse the strategies and technologies used in e-global business.
- 4. To develop critical thinking and problem-solving skills in the context of e-global business.

Learning Outcomes:

By the end of this course, students will be able to:

- 1. Identify and explain the key concepts and principles of e-global business.
- 2. Evaluate the impact of e-commerce on global business operations.
- 3. Analyse and develop strategies for conducting business in a digital environment.
- 4. Apply critical thinking skills to solve problems and make informed decisions related to e-global business.

Unit 1: Introduction to e-Global Business

Unit 1: Introduction to e-Global Business

Introduction to e-commerce and its evolution, Globalization and the digital economy, Benefits and challenges of e-global business, Global market entry strategies, Digital transformation and its impact on global business, Evolution of online marketplaces and their role in e-global business, The role of technology and innovation in driving e-commerce growth, Regulatory and legal frameworks governing e-global business, The role of artificial intelligence (AI) and automation in e-global business, Digital entrepreneurship and the emergence of startups in the digital space, Cybersecurity challenges in e-global business and methods for protection, The impact of social media on global business and customer engagement.

Unit 2: E-Global Business Models

Types of e-business models (B2C, B2B, C2C, etc.), E-marketplaces and online platforms-Digital marketing and customer relationship management- Payment systems and security in e-global business- Subscription-based business models and recurring revenue strategies-Influencer marketing and its effectiveness in e-commerce, Collaborative consumption and its impact on e-global business-Influencer selection and management strategies for effective digital marketing, Strategies for building and managing online communities to drive customer loyalty.

Unit 3: Managing E-Global Business Operations

Supply chain management in a digital environment- Logistics and fulfilment in e-commerce-International trade and legal considerations- Cross-cultural management and customer service- Reverse logistics and managing returns in e-global business- Intellectual property rights and protection in digital transactions, Customer data privacy and compliance with data protection regulations- Cloud computing and its role in supporting scalable and flexible e-commerce operations- Supply chain sustainability and responsible sourcing in e-global business- Risk management in e-global business operations.



Unit 4: E-Global Business Strategies

Developing an e-global business strategy- E-marketing and online advertising- Data analytics and business intelligence- Social media and online reputation management- Personalization and customization strategies in e-commerce- Competitive analysis and benchmarking in the digital marketplace- Personalization through machine learning and recommendation systems-Social commerce and the integration of e-commerce with social media platforms- Voice search optimization and its impact on e-commerce websites.

Unit 5: Emerging Trends in E-Global Business

Mobile commerce and the rise of m-commerce, Artificial intelligence and machine learning in e-commerce, Blockchain technology and its applications, Ethical and sustainability issues in e-global business, Voice commerce and the impact of smart speakers on e-commerce-(VR) in enhancing online shopping experiences, Cryptocurrencies and their potential for transforming global payments, Environmental sustainability practices in e-global business-Virtual reality (VR) and augmented reality (AR) in transforming the online shopping experience-The ethical implications of AI and automation in e-commerce decision-making processes.

- 1. "E-Commerce 2025: 11 Trends Impacting E-Commerce Companies This Decade" by Gerald Celente
- 2. "Global E-commerce: Impacts of National Environment and Policy" by Yong Zhou
- 3. "E-Business and E-Commerce Management" by Dave Chaffey and Tanya Hemphill
- 4. "Global Electronic Commerce: A Policy Primer" by Catherine L. Mann and Sarah Cleeland Knight
- 5. "e-Business: The Indian Scenario" by Ravi Kalakota and Marcia Robinson
- 6. "e-Commerce in India: A Game Changer for the Economy" by Pradeep Kumar.
- 7. "Global E-commerce: Impacts of National Environment and Policy" edited by Geng Cui and Yu Tian
- 8. "Digital Marketing: Strategy, Implementation and Practice" by Dave Chaffey and Fiona Ellis-Chadwick
- 9. Jayakar Dalavai, Vidyadhar Reddy Aileni, International Business, BS Publications

PAPER CODE-MB 303 Course: TOTAL QUALITY MANAGEMENT

Course objectives:

This course is aimed at:

- 1. Orienting the students towards the importance of quality as a management tool
- 2. Towards understanding the principles and practices of total quality management
- 3. Introducing the various tools and techniques used in the measurement of quality
- 4. Understanding the importance of six sigma as a quality tool and its implementation
- 5. Sensitizing the participants to the importance of quality in various sectors.

Course outcomes:

After going through this course one should be able to;

- 1. Understand the basic terminologies and metrics that are used to govern quality management
- 2. Get a better perspective on quality standards like ISO and quality awards
- 3. Be able to identify the various metrics that govern quality
- 4. Elucidate the role and importance of six sigma as a quality measurement tool
- 5. Identify the various means and techniques for establishing quality in manufacturing, services and IT sector.

Unit-I: TQM- History and Evolution:

Connotations of Quality, Quality Dimensions- Product and Service. The concept of TQM, Evolution of TQM-Inspection, SQC, QA and TQM. Conventional quality management versus TQM. Customer supplier focus in TQM. Benefits and Costs of TQM. Historical perspectives of TQM. Quality System Awards and Guidelines-ISO, Malcom Baldrige National Quality Award (MBNQA), European Foundation for Quality Management (EFQM), Golden Peacock National Quality Award (GPNQA).

Unit - II: Tools of TQM:

Measurement Tools: Check Sheets, Histograms, Run Charts, Scatter Diagrams, Cause and Effect Diagrams, Pareto's Chart, Process Capability Measurement. Analytical Tools: Process Mapping, Regression Analysis, Resource Utilization and Customer Service Analysis, The Five Why's, Overall Equipment Effectiveness. Improvement Tools and techniques: Kaizen, JIT, Quality Circles, Force Field Analysis, Five S's. Control Tools: Gantt Chart, Network Diagram, Radar Chart, The PDCA cycle, Milestone Tracker Diagram and Earned Value Management.

Unit-III: Techniques of TQM:

Quantitative techniques: Failure Mode Effect Analysis (FMEA), Statistical Process Control (SPC), Quality Function Deployment (QFD), Design of Experiments (DOE), Quality by Design and Monte Carlo Technique (MCT). Qualitative techniques: Benchmarking, The Balanced Scorecard, Sales and Operations Planning, Kanban and Activity Based Costing (ABC). Taguchi methods: Quality loss function, Orthogonal arrays, Signal-to-Noise ratio: Nominal-the best, Target-the-best, Smaller -the-best, Larger-the-best. Parameter Design, Tolerance design.



Unit-IV: Six Sigma and its Implementation:

The concept of Six Sigma, Objectives of Six Sigma, The framework of Six Sigma programme, Six Sigma Organization: roles and responsibilities, Six Sigma problem solving approach: The DMAIC model, Six Sigma Metrics: Cost of poor quality, Defects per million opportunities and First pass yield. Benefis and costs of Six Sigma.

Unit-V: TQM in Various Sectors:

Implementation of TQM in Manufacturing Sector- Automobile and Pharmaceuticals TQM in Service Organization: Framework for improving service quality, Model to Develop to measure service quality programs. TQM in Health-care services, Hotels and financial services- Banks, Investment company and Mutual Funds.Role of TQM in IT Sector.

- 1. Dale H. Besterfield, Carlo Besterfield- Michna, Glen H Besterfield and Mary Besterfield-scare, Hemanth Urdhwareshe & Rashmi Urdhwareshe-" Total Quality Management", 2018, Pearson Education (DHB)
- 2. K. Shridhara Bhat "Total Quality Management" Himalaya Publishing House, 2010, First Edition.
- 3. D.R.Kiran, "Total Quality Management", Key Concepts and case studies, 2017, Elsevier, BS Publications
- 4. Poornima M.Charantimath, "Total Quality Management", 2022, Pearson Education (PMC)
- 5. Ramaswamy, S., "Total Quality Management", 2017, McGraw Hill Education.
- 6. "The Six Sigma Instructor Guide", Green belt Training made esay, 2008, 2nd Ed.Macmillan
- 7. R.P. Mohanty & R.R.Lakhe, "TQM in the Service Sector" Jaico Books.2016.
- 8. K.Sridhara Bhat, "Total Quality Management", HPH
- 9. Barrie.G.Dale, Heather Bunney, "Total Quality Management", Wiley Publications
- 10. DR. Kiran, Total Quality Management An Integrated Approach, BS Publications
- 11. Joel E. Ross, Total Quality Management Text, Cases & Readings, Taylor and Francis

Paper Code – MB 304 – F - I Discipline Specific Elective -Finance INVESTMENT MANAGEMENT

Course Objectives:

- 1) To explain the basic concepts of risk and return
- 2) To explain the concept of portfolio return and risk and portfolio theories
- 3) To understand the features and valuation of debt instruments
- 4) To understand the features and valuation of Common stock
- 5) To describe portfolio evaluation methods

Course Outcomes:

After studying this Course, the student will be able to:

- 1) Differentiate various avenues of investment on the basis of risk and return
- 2) Gain basic knowledge of analysing stocks
- 3) Make valuation of equity, debt and portfolio instruments
- 4) Gain an understanding of mutual funds, their performance evaluation and regulation.

Unit – I: Introduction to Investments:

Concept; Real vs. Financial assets; Investment decision process; Sources of investment-information; Investment vs. Speculation; Factors to be considered in investment decision-Liquidity, Return, Risk, Maturity, Safety, Tax and Inflation. The concept and measurement of return-realized and expected return. Ex-ante and ex-post returns.

The concept of risk. Sources and types of risk. Measurement of risk-Range, Standard Deviation and Co-Efficient of Variation. Risk-return trade-off. Risk premium and risk aversion.

Approaches to investment analysis-Fundamental Analysis; Technical Analysis (including basic numerical on RSI, Oscillators, Moving averages for security analysis); Efficient Market Hypothesis.

Unit – II: Portfolio Theory:

Concept of portfolio. Portfolio return and risk. Harry Markowitz's Portfolio theory, construction of minimum risk portfolio, the single-index model. Capital market theory: Introduction of risk-free asset, Capital Market Line, Separation theorem.

Unit – III: Fixed Income Securities - Analysis, Valuation and Management:

Features and types of debt instruments, Bond indenture, factors affecting bond yield. Bond yield measurement-Current yield, holding period return, YTM, AYTM and YTC. Bond valuation: Capitalization of income method.

Bond-price theorems, Valuation of compulsorily / optionally convertible bonds, Valuation of deep discount bonds. Bond duration, Macaulay's duration and modified Macaulay's duration. Bond convexity, Considerations in managing a bond portfolio, term structure of



interest rates, risk structure of interest rates.

Managing Bond Portfolio: Bond immunization, active and passive bond portfolio management strategies.

Unit – IV: Common Stocks - Analysis and Valuation:

Basic Features of Common Stock, Approaches to valuation-Balance sheet model, dividend capitalization models; earnings capitalization models; Price-Earnings multiplier approach and capital asset pricing model, Free Cash flow model, relative valuation using comparables-P/E,P/BV, P/S.

Security Market Indexes, their uses; computational procedure of Sensex and Nifty.

Capital asset pricing model (CAPM): Security Market Line. Identifying over-priced and under-priced securities. Arbitrage pricing theory (APT): The Law of one price, two factor arbitrage pricing, Equilibrium risk-return relations. A synthesis of CAPM and APT.

Unit – V: Portfolio Evaluation:

Performance measures-Sharpe's reward to variability index, Treynor's reward to volatility index, Jensen's differential index, Fama's decomposition of returns.

Mutual funds: genesis, features, types and schemes. NAVs, costs, loads and return of mutual funds, Problems and prospects in India, Regulation of mutual funds and investor's protection in India.

- 1. Alexander. G.J, Sharpe. W.F and Bailey. J.V, "Fundamentals of Investments", PHI, 3rd
- 2. Zvi Bodie, Alex Kane, Marcus. A.J., Pitabas Mohanty, "Investments", TMH, 8th Ed.
- 3. Prasanna Chandra, "Investment Analysis and Portfolio Management", TMH, 3rd Ed.
- 4. Charles.P.Jones, "Investments: Analysis and Management", John Wiley &Sons, Inc. 9th
- 5. Francis. J.C. & Taylor, R.W., "Theory and Problems of Investments". Schaum's Outline Series.McGraw Hill
- 6. Herbert. B. Mayo, "Investments: an Introduction", Thomson South Western. 9th Ed.
- 7. Peter L. Bernstein and Aswath Damodaran, "Investment Management", Wiley Frontiers in Finance.
- 8. Dhanesh Khatri, "Security Analysis and Portfolio Management", 2010, Macmillan
- 9. Sudhindra Bhat, "Security Analysis and Portfolio Management", 2009, Excel Books.
- 10. Preeti Singh, Investment Management, 2010, HPH, 17th Revised Edition.
- 11. Stephen A. Ross, Randolph Westerfield, and Jeffrey Jaffe, "Corporate Finance", TMH.
- 12. S. Chand "Investment Management: Security Analysis & Portfolio Management".
- 13. S. Kevin, "Analysis and Portfolio Management", PHI.
- 14. Punithavathy Pandian, "Security Analysis and Portfolio Management", Vikas Publishing House
- 15. Donald E. Fisher and Ronald J. Jordan: "Securities Analysis and Portfolio Management", Prentice Hall.
- 16. Graham & Dodd, "Security Analysis and Portfolio Management", McGraw Hill.
- 17. Jack Clark Francis, "Investment", TMH, New Delhi. 18. Dr.V.A.Avadhani, "Investment Management", HPH



Paper Code – MB 304 – F - I I Discipline Specific Elective -Finance FINANCIAL SYSTEM AND SERVICES

Course Objective:

- 1) To create awareness about Financial System and Financial services in India.
- 2) To learn about the role of financial institutions in India
- 3) To understand the importance of Venture Capital

Course Outcomes:

- 1) To explain the importance ,functions of financial system and financial services
- 2) To understand the concept of merchant banking and its functions
- 3) To learn the venture capital financing modes used to raise finance
- 4) To understand factoring ,bill discounting and credit rating services needed for businesses

Unit I: The Financial System In India

Functions of the Financial System – structure of Indian financial system – Indian Money market – composition of money markets – money market instruments . Indian Capital Market – Importance of Capital Market . Classification of Indian capital market – Primary Market and Secondary Market – Products and Participants – Regulation of capital market – Recent trends in Indian capital Market.

Financial Services: Meaning, scope, Features and Importance of Financial Services. Classification of Financial service Industry. Financial Innovation - Causes for Financial Innovation. New Financial products and services – Fintech services – types , growth and . Present scenario and Challenges.

Unit-II: Financial Institutions:

Evolutions of banking in India - Functions of RBI and regulatory framework - Commercial banking in India - Role of private sector banks and public sector banks - changing role of commercial bank in India . NBFCs - Role and functions. Financial institutions in India - NABARD, SIDBI, EXIM Bank and NHB.

Unit III: Introduction to Merchant Banking

Concept and Evolution of Merchant Banking in India- Functions of a Merchant Banker - Regulatory Framework for Merchant Bankers in India - SEBI guidelines

Issue Management – Process and Underwriting -Public issue management – functions – categories of securities issue – role of issue manager. Obligations Relating to issues-Pricing of Issue- Underwriting

Unit-4: Venture Capital Financing:

Origin-concept of venture capital financing-The Paradigm shift in venture capital-Features-Importance of VCF- Stages of VCF-Factors affecting VCF-Selection procedure of venture



capitalists-Venture Capital Industry in India-Venture capital providers in India- SEBI(venture capital fund) Regulations- Indian venture capital scenario- Evaluation of VCF —Conventional valuation-First Chicago Method- Revenue Multiplier Method- -Role of TDICI in building venture capital fund-Exit strategies of venture capitalists- Issues-Challenges & Suggestions for the growth of venture capital finds in India

Unit V Factoring and Credit Rating:

Factoring: Factoring concept, process and forms. Functions of a factor. cost of factoring, Legal aspects of factoring, Factoring scenario in India. Bill discounting Legal aspects of bill discounting. Difference between and Bill discounting and factoring.

Credit rating: Meaning and Process of Credit rating of financial instruments. Rating methodology. Introduction to various Rating Agencies. Rating Symbols of different companies.

- 1. E.Gordon and K.Natarajan, 2019, Financial Markets, Instruments and Financial Services, 11th edition, Himalaya Publication House, Mumbai.
- 2. Clifford Gomez, 2015, Financial Markets, Instruments and Financial Services, PHI learning Private Limited, Delhi.
- 3. L. M. Bhole: Financial Institutions and Markets, TMH, 2012.
- 4. M. Y. Khan: Financial Services, TMH, 2012.
- 5. Dr. Vasanth Desai, 2013, Financial Markets and Financial Services, Himalaya Publishing House, Mumbai.
- 6. M Y Khan, "Financial Services", TMH, 5th edition
- 7. Shashi K. Gupta, Nisha Aggarwal and Neeti Gupta, "Financial Services", Kalyani Publishers, 6th Revised Edition
- 8. Bhatia, B.S., and Gupta G.S., Management of Financial Services, Deep and Deep, New Delhi.
- 9. Ghosh, P.K., and Gupta, G.S., Fundamentals of Lease Financing, Vision Publishers, New Delhi.
- 10. Gupta, S.K., and Nisha Aggarwal, Financial Services, Kalyani Publishers, New Delhi.
- 11. Nalini Prava Tripathy, Financial Services, Prentice Hall of India Pvt. Ltd., New Delhi
- 12. Guruswamy, S., Financial Services and Markets, Thomson Learning, Singapore.
- 13. Anbarasu Joseph D, Boominathan VK, Mohan Man, Gnanaraj G, "Financial Services", S.Chand Publications
- 14. V.A. Avadhani, "Financial Services in India", HPH



Paper Code – MB 304 – M - I

Discipline Specific Elective - Marketing MARKETING ENGINEERING

Course objectives:

The objectives of this course are;

- 1. Acquainting the readers with modeling of market variables using a wide variety of models
- 2. Use of market segmentation and perceptual maps to provide an insight into marketing strategy analysis
- 3. Use of forecasting models to measure demand and market response modeling
- 4. To gain an insight into quantitative and qualitative response models and their role in strategic analysis
- 5. To help understand how modeling can be used in advertising decision making and pricing analysis

Course Outcomes:

After reading this course one should be able to;

- 1. Understand the relevance of modeling in marketing for logical judgment
- 2. Appreciate the business and economic lifetime value of marketing engineering
- 3. Be well versed with the various models, both qualitative and quantitative in marketing engineering
- 4. Understand the relevance of using modeling in marketing as a decision making tool
- 5. Learn the importance of marketing engineering as a strategic marketing analysis tool

Unit – I:

Marketing Engineering Approach, Key Concepts of Marketing Engineering (ME) Model, Verbal, Model, Box and Arrow Model, Response Model, Mathematical Model, Models Vs Judgements, Trial / Repeat Model, Marketing Decision Environment, Tools for Marketing Engineering, Business Value of Marketing Engineering, Customer Value, Value in Use Assessment, Economic Life Time Value, Approaches to Measure Customer Value.

Unit – II:

Segmentation, Targeting, Positioning-Traditional Segmentation, Targeting, Positioning through Brand Linkages, Perceptual Maps, Preference Maps, Limitations of Perceptual and Preference Map Forecasting Methods – Judgemental Method, Market and Product Analysis Method, Time Series Methods, Causal Methods, Product Life Cycle, New Product Forecasting Models – The Bass Model Bases Model, Selection of Forecasting Methods.

Unit – III:

Market Response Models: Concept of a Response Model, Response Models - Aggregate



Response Model, Individual Response Models, Shared Expenditure Models, Qualitative Response Models.

Unit – IV:

Strategic Market Analysis, Strategic Marketing, Decision Making, Advertising Budget Model, Rao & Miller Model, Ad budg model, the Full Model, Advisor Model, Media Decisions, Steps in Ad design Adcad systems, Syntex Approach.

Unit –V:

Geo-demographic analysis, Gravity Model, Pricing Models, Differential Pricing, Competitive Bidding Bases for Differential Pricing, Revenue Management Process, Promotional analysis. Promotional Effects, Promotional types and targets, Promotional Effects Model.

- 1. Gary L Lilien, Arvind Rangaswamy, Arnaud De Bruyn, "Principles of Marketing Engineering" 2005, P H I.
- 2. Gary L Lilien, Philip Kotler, Sridhara Moorthy, "Marketing Models", 2005, P H I
- 3. Gary L Lilien, Arvind Rangaswamy "Marketing Engineering", 2006 Trafford Publishing.
- 4. Paul W Farris, Neil T Bendle, Phillip E. Pfeifer, David J. Reibstein, "Marketing Metrics", 2010 Wharton School Publishing.



Paper Code – MB 304 – M - I I Discipline Specific Elective - Marketing ADVERTISEMENT AND RETAIL MANAGEMENT

Course Objectives:

The objectives of this course are;

- 1. To sensitize students on various dimensions of the promotion mix
- 2. To help gain an understanding of the role of advertising in marketing
- 3. To explore the various elements relating to an effective advertising strategy
- 4. To introduce the concept of organized retailing
- 5. To help understand the various functions & roles of retailing in India

Course Outcomes:

After reading this course you should be able to;

- 1. Understand the importance of advertising in the marketing mix
- 2. Establish the importance of creativity in an ad campaign
- 3. Determine the comparative importance of organized retailing sector vis-a- vis unorganized sector
- 4. Compare the functions and performance of organized retail sector to others
- 5. Determine the role of other functional areas of marketing as key drivers to the retail sector

Unit-I:

Advertising – Role in promotion mix, Objectives of advertising, Creativity in advertising, Ad-copy, Creative strategy & process – Implementation & evaluation, DAGMAR, Types of ad appeals, Ad budget – Establishment & allocation, Budgeting approaches

Unit- II:

Media planning, Deciding media objectives – Media strategy, Media mix, Ad reach Vs. Frequency, Evaluation of media, Internet and interactive media, Role of technology in media, Media planning, Role of Technology in media planning, Measuring ad effectiveness, Copy testing

Unit – III:

Introduction to organized retailing, Trends in retail, Types of retail format, Behaviour of organized retail markets, Objectives and function of retailing, retailing in India

Unit- IV:

Retailing in rural India, Geographic spread of Indian retail sector, Organized & unorganized, Types of retail formats, Retailing in services sector, International retailing, Cultural challenges in International retail, Role of MNC's

Unit – V

CRM in retail, Retail pricing strategies – Key drivers, Merchandising management, Store management, visual merchandising – Logistics management, Developing retail CRM programmes, Legal & ethical concerns in organized retail



Suggested Readings:

- 1. Aaker, David A, Advertising Management 4th edition, PHI
- 2. Bajaj Tuli Srinivatsava, Retail Management, 3rd Edition, Oxford Publication

- 1. Belch, George E and Blech, Michael A, Advertising and promotion, Tata McGraw Hill.
- 2. Ogilvy David, Ogilvy on Advertising, Longeman, London
- 3. Chunawalla, S.A., Advertising, Sales and Promotion Management Himalaya Publishing House.
- 4. Mohan, Mahendra, Advertising Management, Tata Mcgraw Hill
- 5. Levy & Weitz, Retailing Management, Tata McGraw Hill
- 6. Bary Berman & Evans, Retail Management- A Strategic Approach, Pearson education
- 7. Akileshwar Pathak, Legal Aspects of Business, Tata McGraw Hill
- 8. Nicholas Alexander, International Retailing, Blackwell Basin Publishers Ltd
- 9. Dr.Harjith Singh, "Retail Management: A Global Perspective, Texts and Cases" S.Chand
- 10. S.A.Chanuwalla and KC.Sethia, "Foundations of Advertising- Theory and Practice", HPH



Paper Code – MB 304 – HR - I Discipline Specific Elective -HR COMPENSATION MANAGEMENT

COURSE OBJECTIVES:

- 1. To demonstrate various perspectives of compensation management
- 2. To provide thorough knowledge of planning and administering compensation in different sectors.
- 3. To understand the nature of executive and international compensation

COURSE OUTCOMES:

Upon completion of this course, the student will be able to

- 1. Understand the fundamental concepts and theories of compensation.
- 2 . Recognize the importance of compensation strategy.
- 3. Analyse, integrate, and apply the knowledge of administering wages in different sectors according to the different wage laws.
- 4. Comprehend the employee benefits and services
- 5. Appreciate the advancements in managing compensation at global level.

UNIT I: Fundamentals of Compensation

Concept of Compensation; Different perspectives of Compensation – Stakeholders and determinants of compensation; Compensable Factors; Wage Differentials and Types of Compensation – Base pay, Variable Pay, Benefits, Incentives; The concepts of Minimum wage, Fair wage, Living wage, Money and real wages; Wage Theories – Macro and Micro.

UNIT II: Compensation Planning and Employee Contributions

Developing a total Compensation Strategy and Pay Roll Management System – Competitive Advantage –Compensation Structure - Wage and Salary surveys, the wage curve, Pay grades and Rate ranges, Preparing Salary matrix; Compensation management's association with Employee Motivation, Job design and Job evaluation; Performance-related compensation, Individual and team-based compensation.

UNIT III: Wage Administration

Wage Administration, Wage Policy and Wage Legislation in India - The Minimum Wages Act, 1948. The Payment of Wages Act, 1936. The Payment of Bonus Act, 1965. The Equal Remuneration Act, 1976. The Payment of Gratuity Act, 1972. The Employees' Provident Fund and Miscellaneous Provisions Act, 1952; Wage Structure in different Sectors – in Central Government, in State Government, in PSEs and in Nationalised Banks; Wage Boards - structure, scope and functions – Pay Commissions – Compensation Committees; Compensating contingent employees.



UNIT IV: Employee Benefits and Services

Legally required and Discretionary employee benefits; Employee services; Designing, Planning and Administration of benefits program; Totally integrated employee benefits; Fringe Benefits and Voluntary Retirement Schemes.

UNIT V: Executive and International Compensation

Nature and management of Executive compensation; Executive Compensation theories – Agency theory, tournament theory and Social comparison theory. International Compensation - Design and Approaches to International remuneration with special reference to expatriates and the remuneration of third country nationals. Challenges of international compensation

Essential Readings:

- 1. Joseph J. Martocchio- Strategic Compensation- 3rd Edition
- 2. Dr. Pradeep Kumar Das, Dr. Madan Chettri and Ms. Roshni Tamang., Compensation Management, Lulu Publication, 2021, 1st Edition.
- 3. Tapomoy Deb, Compensation Management Texts and Cases, Excel Books, 2009, 1st Edition.
- 4. S. K. Bhatia, New Compensation Management in Changing Environment Managerial Remuneration and Wage & Salary Administration, A Professional Manual, Deep and Deep Publications Pvt. Ltd., 2009, 3rd Edition.
- 5. R.C. Sharma and Sulabh Sharma, Compensation Management, Sage Publications, 2019
- 6. Dr.Kanchan Bhatia," Compensation Management", HPH
- 7. Peter T.Chingos, "Paying for Performance: A guide to Compensation Management, 2nd edition, Wiley Publications.

Suggested Readings:

- 1. Milkovich, Newman & Gerhart, Compensation, Tata McGraw Hill, 2011, 10th Edition
- 2. Richard I. Henderson, Compensation Management in a Knowledge-Based World, Pearson Education, 2009, 10th Edition.
- 3. B D Singh, Compensation and Reward Management, 2008, Excel Books.
- 4. Dr. Vinay Ojha, "Compensation and Reward Management", 2019, 7th Edition.
- Luis R. Gomez-Mejia & Steve Werner, Global compensation -Foundations and perspectives Routledge, 2008.
- 6. Mousmi S. Bhattacharya & Nilanjan Senguupta, Compensation Management, Excel Books, 2009, 1st Edition.
- 7. Dipak Kumar Bhattacharya Compensation Management- Oxford University Press, 2015



Paper Code – MB 304 – HR - II Discipline Specific Elective -HR Industrial Relations and Labour Laws

Course Objective:

- 1) This course intends to make the management students aware of the various actors as part of the industrial relations such as the state, ILO, trade unions and so on.
- 2) The course focuses on the managerial perspectives needed to understand industrial relations issues, labour laws, issues and implications.
- 3) Critically analyze reforms in labour legislation over labour codes.

Learning Outcomes: By the end of the course, the students would:

- 1. Gain a comprehensive understanding of Industrial relations in the wake of economic reforms.
- 2. Gain knowledge of industrial disputes and a framework for analysis and resolution of such disputes.
- 3. Understand the role of trade unions and generate alternate decision making.
- 4. Appreciate Labour laws related to labour welfare, social security and other protective laws towards women labour, migrant labour and contract labour

Unit – I: INDUSTRIAL RELATIONS

Industrial relations- Meaning, Concept and objectives; Changing roles of actors - Workers, Management & Government in industrial relations; Approaches to Industrial Relations - System approach (Dunlop's), Social Action Approach, input – output Approach; Conditions for good Industrial Relations, Economic Reforms and status of IR in India, Industrial Relations code 2020.

Unit – II: INDUSTRIAL DISPUTES AND RESOLUTION

Management of Discipline - The Industrial Employment (*Standing Orders*) *Act*, 1946; Industrial Disputes - Meaning, nature, causes, extent and methods of settling industrial disputes; Industrial Disputes Act, 1947; Alternate Dispute Resolution Strategies - Collective Bargaining, Negotiation, Conciliation/Mediation, Adjudication and Voluntary Arbitration; Management of Industrial Cooperation - Labour Management co-operation, Workers' Participation in Management and Industrial Democracy.

Unit - III: TRADE UNIONISM: HISTORICAL & LEGAL FRAMEWORK

Trade Unionism - Objectives and Functions of Trade Unions; Trade Union Movement in India - History and growth of Trade Union in India - Trade Unions in Pre and Post - independence Period; Trade Unions Act, 1926; Challenges of Trade Unions in India, Changing industrial environment and Role Trade Unions in Globalized economy.



Unit – IV: LABOR LEGISLATION IN INDIA (Part-1)

Labour Legislation - History and growth of labour legislation in India; International Labour Organization (ILO) - Activities of ILO, Impact of I.L.O. on Indian Labour standards; Labour Welfare and Social Security - Meaning, Concept and Principles of Labour Welfare, Approaches to Labour Welfare, Indian Constitution & Labour Welfare and National Commission on Labour recommendations on Labour Welfare; Meaning, Evolution, institutional growth and need of social security and concept of employer's Liability; Salient features of Welfare and security legislations for organized and unorganized workers in India, Code on Social Security, 2020;

Unit – V: LABOR LEGISLATION IN INDIA (Part-2)

Women and Labour law - The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013, Supreme Court verdict in Vishaka Versus State of Rajasthan case; Protective Labour Legislation in India – Inter State Migrant Workmen (Regulation of Employment & conditions of Service) Act, 1979; Salient features of Occupational safety, Health and Working Conditions code, 2020; Contract Labour (Regulation & Abolition) Act, 1970; Labour Law reforms initiative in India – The Code on Wages, 2019; The Occupational Safety, Health and Working Conditions Code, The Code on Social Security, The Industrial Relations Code.

Essential Readings

- 1. New Labour and Industrial Laws, 2020, Taxmann Publications, New, Delhi.
- 2. Mishra, SN, Labour and Industrial Laws, 2018, Central Law Publications.
- 3. Ghosh, P and Nandan, S, 2015, Industrial relations and Labour Laws, Mc Graw Hill Publishers.
- 4. Goswami, V.G., 2015, Labour and Industrial Laws, Allahabad, Central Law Agency
- 5. Srivastava, SC, 2012, Industrial Relations and Labour Laws, Vikas Publications, New Delhi,
- 6. C.S Venkata Ratnam, "Industrial Relations", 2009, Oxford University Press, New Delhi
- 7. S.C.Srivatsava, "Industrial Relations and Labour Laws, 8e, S.Chand Publications
- 8. Sharan, "Industrial Relations and Labour Laws at Glance, Shroff Publications

Suggested Readings

- 1. Sukomal Sen, 1997, "Working Class in India, History of Emergence and Movement (1830-1990)", National Book Agency, Kolkata.
- 2. Srivastava, S.C, "Industrial Relations and Labour Laws", 5th Rev., Vikas Publication House, New Delhi, 2006
- 3. Singh B.D, 2008, "Industrial relations and labor laws", Excel books.
- 4. P.K.Padhi, 2009, "Labour and Industrial Laws", PHI Learning Pvt. Ltd.



Paper Code – MB 304 – E - I Discipline Specific Elective -Entrepreneurship BUSINESS FEASIBILITY AND ANALYSIS

Course Objectives:

- 1. To familiarize the students with the mechanics of appraisal and evaluation of projects.
- 2. To understand the concept of SCBA
- 3. Learn to write a Business Plan

Course Outcomes:

- 1. Forecast of cash flows
- 2. Preparation of Business plan with all inputs
- 3. Application of network techniques of project management

UNIT-I: Introduction:

a) Concept of Project: Characteristics and importance of Projects – Project development cycle - Types of projects - Risk-return trade off. (b) Identification of investment opportunities: Sources of new project ideas - Preliminary screening of projects. (c)Feasibility Studies and Reports: Broad aspects of appraisal – Market feasibility, Technical feasibility, Operational feasibility, financial feasibility.

UNIT-II: Feasibility Appraisal:

a) Market Appraisal: Market and demand analysis - Market survey - Demand forecasting - Sales projections. (b) Technical Appraisal: Issues involved in technical feasibility - Production technology - Materials and inputs - Plant capacity - Site selection - Plant layout - Site preparation - Civil works and structures - Details of machines and equipment-Specification and cost determination. (c) Operational Appraisal: Heads of cost - Estimates of cost of production - Break even point - Economics of working - Profitability.

UNIT-III: Business Plan:

Financial Appraisal: (a) Cost of project and means of financing (b) Estimation of cash inflows - Basic principles of estimation (c) Riskanalysis in capital budgeting, certainty equivalent, standard deviation, sensitivity analysis etc. (d) Writing a Business Plan

UNIT-IV: Project Financing & SCBA:

a) Social Cost Benefit Analysis: Rationale of SCBA - Approaches to SCBA in India. (b) Financing Projects: Appraisal procedures and practices of financial institutions -Financial statements required for project financing



UNIT-V: PERT & CPM:

a) Project Implementation: Network techniques - Critical path - Project Crashing - Time and cost over runs. PERT and CPM - Project management - Forms of organization – Project planning and control.

Suggested Readings:

- 1. Project Appraisal: A Third World View Point: UNID Publications 1996.
- 2. Project Evaluation and Management: M.K.Singh.
- 3. Projects, Preparation, Appraisal and Implementation: Prasanna Chandra, TMH, New Delhi 1998.
- 4. Project Financing: H.P.S. Pahwa.
- 5. Clifford. F. Gray, Erik. W. Larson: Project Management, the Managerial Emphasis, McGraw Hill 2000.
- 6. Mike McKeever, How to Write a Business Plan



Paper Code – MB 304 – E - I I Discipline Specific Elective – Entrepreneurship INNOVATION AND DESIGN THINKING

Course Objectives:

- 1) To understand the importance and process of Innovation.
- 2) To delve deep into the concept of design thinking and its practical application in a business context.
- 3) By the end of these units, managers should be able to effectively utilize design thinking to identify problems, generate creative solutions, and implement impactful business innovations.

Course Outcomes:

- 1) To inculcate the concepts of creative thinking, design thinking and innovation.
- 2) Develop the students as a good designer by imparting creativity and problem-solving ability
- 3) Implement creative and design thinking to come up with an effective innovation.
- 4) Being able to identify problems and apply design thinking to come up with solutions.
- 5) Use design thinking to develop innovative products that bring business impact.

Unit 1: Introduction to Innovation: Meaning and differences innovation and creativity, Characteristics, Importance, Principles of Innovation, Process of Innovation, Types of innovation, strategic advantages of innovation, innovation adoption and diffusion model.

Unit 2: Innovation in management: Macroscopic view of innovation, approaches to innovation, assumptions and barriers in innovation, push and pull innovation, TRIZ Theory, SCAMPER Technique, SWOT analysis, organizational aspects of innovation, success factors in innovation management.

Unit 3: Fundamentals of Design Thinking –

New Product Development: New product life cycle, linking engineering, technology and management for innovation, innovation platform, industrial design concepts for a product. Introduction to design thinking: principles, stages, and key methodologies Emphasis on the human-centered approach to design thinking

The importance of empathy in understanding customer needs and experiences

Techniques to define problems in a user-centric manner

Unit 4: Ideation, Prototyping, and Testing

Understanding the ideation phase: Techniques to stimulate creativity and brainstorm innovative solutions

Introduction to prototyping: Principles, methodologies, and hands-on exercises The role of testing in design thinking: Techniques to test prototypes and validate ideas effectively Interpreting feedback and refining the solution: Iteration process in design thinking

Case studies demonstrating successful ideation, prototyping, and testing stages

Unit 5: Implementing Design Thinking for Business Impact



Tools for design thinking, The transition from design thinking to implementation in the business context -How to use design thinking to develop innovative products and services - Strategies for scaling design thinking in an organization and maintaining an innovative culture - Design thinking's role in driving business growth and transformation - design thinking and innovation for sustainability - Case studies of innovative products developed through design thinking highlighting the business impact.

Suggested Books John.R. Karsnitz, Stephen O'Brien and John P. Hutchinson, "Engineering Design", Cengage learning (International edition), second edition, 2013.Roger Martin, "The Design of Business: Why Design Thinking is the Next Competitive Advantage", Harvard Business Press, 2009.Product Design and Development- Karl T Elrich- sixth edition-McGraw Hill publications Hasso Plattner, Christoph Meinel and Larry Leifer (eds), "Design Thinking: Understand – Improve- apply" Springer, 2001.

- 1. Tim Brown, Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation, HarperCollins Publishers Ltd.
- 2. Idris Mootee, Design Thinking for Strategic Innovation, John Wiley & Sons Inc
- 3. Brenda Laurel, Design Research methods and Perspectives, MIT press 2003
- 4. Yves Pigneur, Alexander Osterwalder, Business model generation: A handbook for visionaries, game changers and challengers, Wiley
- 5. Don Norman, "The Design of Everyday Things, Basic Books
- 6. Todd, Zaki Warfel, "Prototyping: A Practitioner's Guide," Rosenfeld Media
- 7. Eric Ries, "The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses," Currency
- 8. Michael G Luchs, K Scott Swan, Abbie Griffin, Design Thinking WILEY
- 9. Thomas Lockwood, Design thinking Integrating Innovation, Customer Experience, and Brand Value, Allworth Press

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Paper Code – MB 304 – S - I Discipline Specific Elective – Systems DATA BASE MANAGEMENT SYSTEMS

Course Objectives:

- 1. The objective of the course is to present an introduction to database management systems, with an emphasis on how to organize, maintain and retrieve efficiently, and effectively information from a DBMS.
- 2. To explain basic database concepts, applications, data models, schemas and instances.
- 3. Describe the basics of SQL and construct queries using SQL.
- 4. Use the basics of SQL and construct queries using SQL in database creation and interaction.
- 5. Analyze and Select storage and recovery techniques of database system.

Course Outcomes:

- 1. Students can apply the basic concepts of Database Systems and Applications
- 2. Design a commercial relational database system (Oracle, MySQL) by writing SQL using the system.
- **3.** Students can get to facilitate students in Database design and also to familiarize issues of concurrency control and transaction management in DBMS

Unit-1: Database System Architecture and Data Models:

Data Abstraction, Data Independence, Data Definition Language (DDL), Data Manipulation Language (DML), Entity-relationship model, network model, relational and object oriented data models, integrity constraints, data manipulation operations.

Unit-2: Relational Query Languages and Relational Database Design:

Relational algebra, Tuple and domain relational calculus, SQL3, DDL and DML constructs, Open source and Commercial DBMS - MYSQL, ORACLE, DB2, SQL server.

Unit-3: Query Processing and Optimization and Storage Strategies:

Evaluation of relational algebra expressions, Query equivalence, Join strategies, Query optimization algorithms, Indices, B-trees, hashing.

Unit-4: Transaction Processing and Database Security:

Concurrency control, ACID property, Serializability of scheduling, Locking and timestamp based schedulers, Multi-version and optimistic Concurrency Control schemes, Database recovery Authentication, Authorization and access control.

Unit-5: SQL and PL/SQL Concepts:

Basics of SQL, DDL,DML,DCL, structure – creation, alteration, defining constraints – Primary key, foreign key, unique, not null, check, IN operator, aggregate functions, Built-in functions –numeric, date, string functions, set operations, sub-queries, correlated sub-queries, join, Exist, Any, All, view and its types., transaction control commands



MBA (Day) Course Structure and Syllabus as per AICTE guidelines with effect from 2022-24

- 1. "Database System Concepts", 6th Edition by Abraham Silberschatz, Henry F. Korth, S. Sudarshan, McGraw-Hill.
- 2. "Fundamentals of Database Systems", 7th Edition by R. Elmasri and S. Navathe, Pearson
- 3. "An introduction to Database Systems", C J Date, Pearson.
- 4. "Modern Database Management", Hoffer, Ramesh, Topi, Pearson.
- 5. "Principles of Database and Knowledge Base Systems", Vol 1 by J. D. Ullman, Computer Science Press.

PAPER CODE – MB 304 -S Course: DATABASE MANAGEMENT SYSTEMS - Practical Syllabus

Note: Student is required to submit a document showing the database as per their questions Experiment 1: Student should decide on a case study and formulate the problem statement.

Experiment 2: Conceptual Designing using ER Diagrams (Identifying entities, attributes, keys and relationships between entities, cardinalities, generalization, specialization etc.)

Experiment 3: Converting ER Model to Relational Model (Represent entities and relationships in Tabular form, Represent attributes as columns, identifying keys) tables created from ER Model.

Experiment 4: Normalization -To remove the redundancies and anomalies in the above relational tables, Normalize up to Third Normal Form

Experiment 5: Creation of Tables using SQL- Overview of using SQL tool, Data types in SQL, Creating Tables (along with Primary and Foreign keys), Altering Tables and Dropping Tables

Experiment 6: Practicing DML commands- Insert, Select, Update, Delete

Experiment 7: Practicing Queries using ANY, ALL, IN, EXISTS, NOT EXISTS, UNION, INTERSECT, CONSTRAINTS

Experiment 8: Practicing Sub queries (Nested, Correlated) and Joins (Inner, Outer and Equip).

Experiment 9: Practice Queries using COUNT, SUM, AVG, MAX, MIN, GROUP BY, HAVING, VIEWS Creation and Dropping.

Experiment 10: Practicing on Triggers - creation of trigger, Insertion using trigger, Deletion using trigger, Updating using trigger

Experiment 11: Procedures- Creation of Stored Procedures, Execution of Procedure, and Modification of Procedure.

Experiment 12: Cursors- Declaring Cursor, Opening Cursor, Fetching the data, closing the cursor

Experiment 13: Creating forms and working with different objects, Graphics and reports.

Experiment 14: To create a table, alter and drop table.

Experiment 15: To perform select, update, insert and delete operation in a table.

Experiment 16: To make use of different clauses viz where, group by, having, order by, union, intersection, set difference.

Experiment 17: To study different constraints. [SQL FUNCTION]

Experiment 18: To use oracle function viz aggregate, numeric, conversion, string function.

Experiment 19: To understand use and working with joins.

Experiment 20: To understand use and working of sub-queries.



Paper Code – MB 304 – S - I I Discipline Specific Elective – Systems BUSINESS ANALYTICS

Course Objectives:

- 1. The objective is to provide knowledge of data science
- 2. To provide basic statistical tools
- 3. State the importance of data in current business scenario
- 4. To develop contingent business models for better analysis

Course Outcomes:

- 1. Students can use data as tool for business analysis
- 2. The basic statistics provides a road map to learners
- 3. Micro metrics makes the students to identify data gaps
- 4. The business models may help in better decision making

Unit – I: Introduction to Business Analytics:

Definition of Business Analytics, Categories of Business Analytical methods and models, Business Analytics in practice, Big Data - Overview of using Data, Types of Data- Business decision modeling.

Unit – II: Descriptive Analytics:

Overview of Description Statistics (Central Tendency, Variability), Data Visualization - Definition, Visualization Techniques – Tables, Cross Tabulations, charts, Data Dashboards using Advanced Ms-Excel or SPSS.

Unit – III: Predictive Analytics:

Trend Lines, Regression Analysis – Linear & Multiple, Predictive modeling, forecasting Techniques, Data Mining - Definition, Approaches in Data Mining- Data Exploration & Reduction, Data mining and business intelligence, Data mining for business Classification, Association, Cause Effect Modeling.

Unit – IV: Prescriptive Analytics:

Overview of Linear Optimization, Non Linear Programming Integer Optimization, Cutting Plane algorithm and other methods, Decision Analysis – Risk and uncertainty methods - Text analytics Web analytics.

Unit – V: Programming Using R:

R Environment, R packages, Reading and Writing data in R, R functions, Control Statements, Frames and Subsets, Managing and Manipulating data in R.

- 1. Camm, Cochran, Fry, Ohlmann, Anderson, Sweeney, Williams **Essentials of Business Analytics,** Cengage Learning.
- 2. James Evans, **Business Analytics**, Pearson, Second Edition, 2017.
- 3. Albright Winston, Business Analytics Data Analysis Data Analysis and Decision Making, Cengage Learning, Reprint 2016.
- 4. Sahil Raj, Business Analytics, Cengage Learning.



- 5. Jank Wolfgang, "Business Analytics for Managers", Springer
- 6. Prema Alla, Introduction to Data Science Using R, BS Publications
- 7. Sharaff Aakanksha, Data Science and Its Applications, Taylor & Francis

Paper Code – CS301

CASE STUDY

A Case study is a detailed analysis of a person or group or a unit such as corporate division that stresses factors contributing to its success or failure. It is a rich method for investigating and researching a single case. The research questions that can be investigated by case studies include outcome questions, theory-building, pragmatic and experiential or narrative questions.

Faculty must choose Case Study for students. They must teach them the methodology of solving Case Study.

For evaluating a case presentation/ discussion, the following steps shall be followed:

- 1. The participants should ensure that they have enough detail to help present an overall assessment as well as a few strengths and weaknesses, with specific examples of each category.
- 2. The evaluator should observe the reaction to the opening question and check if the choice is a good one to set a base for further discussion.
- 3. Note down the participant responses as Initiator, Builder, Challenger and Summarizer, etc.
- 4. Examine the connection across transaction blocks and assess how the overall learning objective is being addressed.
- 5. Check if the closure is appropriately done and the participants have come up with a decision sheet and involvement sheet.
- 6. Comment on the students' preparation and level of engagement at different points in the discussion.
- 7. Scrutinize the presentation for an overall assessment on the areas to be appreciated, areas of concern, actionable recommendations.



RD 301 RESEARCH DESIGN

A Research Design seminar presentation to be made by the student on the topic chosen for Project Work. A synopsis must be submitted to the college.

The Research Design Seminar will consist of

- 1. Title of the Project.
- 2. Statement of the problem
- 3. Introduction
- 4. Aims and objectives
- 5. Hypotheses (if any)
- 6. Research Methodology
 - a. Nature of the study
 - b. Scope of the study
 - c. Data Collection methods
 - d. Tools for analysis
 - e. Chapterization (Name of the chapters)



PS 301 PROGRESS SEMINAR

Students must present their Progress of Research Seminar showing the extent of work done on the Project chosen. A write up on the Progress Work must be submitted to the college.