

CANARA BANK SCHOOL OF MANAGEMENT STUDIES

**BENGALURU CITY UNIVERSITY
BANGALORE**

IV SEMESTER

**MASTER OF BUSINESS ADMINISTRATION [DAY & EVE] UNDER
CHOICE BASED CREDIT SYSTEM (CBCS) (2019 -2020
ONWARDS)**

COURSE MATRIX

FOURTH SEMESTER MBA (DAY & EVE)

| PAPER | SUBJECTS |
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| CORE SUBJECTS | |
| 4.1 | INTERNATIONAL BUSINESS |
| ELECTIVE SUBJECTS | |
| 4.2 | FINANCE 4.2.1. PROJECT MANAGEMENT AND ANALYSIS 4.2.2. INTERNATIONAL FINANCIAL MANAGEMENT 4.2.3. DERIVATIVES AND RISK MANAGEMENT |
| 4.3 | MARKETING 4.3.1. SALES AND DISTRIBUTION MANAGEMENT AND RETAILING. 4.3.2. SERVICES MARKETING AND CUSTOMER RELATIONSHIP MANAGEMENT . 4.3.3. INTEGRATED MARKETING COMMUNICATION AND DIGITAL MARKETING |
| 4.4 | HUMAN RESOURCES 4.4.1. GLOBAL HRM 4.4.2. STRATEGIC HRM 4.4.3. INDUSTRIAL RELATIONS AND HR AUDIT |
| 4.5 | ENTREPRENEURSHIP AND STARTUPS 4.5.1. TECHNOLOGY FOR NEW VENTURES 4.5.2. SCALING UP AND SUSTAINABILITY OF START-UPS 4.5.3. ENTREPRENEURIAL FINANCE |
| 4.6 | PRODUCTION AND OPERATIONS MANAGEMENT 4.6.1. RESOURCE OPTIMIZATION AND PROJECT RISK MANAGEMENT. 4.6.2. SUPPLY CHAIN MANAGEMENT. 4.6.3. TOTAL QUALITY MANAGEMENT |
| 4.7 | BUSINESS ANALYTICS 4.7.1. BIG DATA ANALYTICS 4.7.2. DATA VISUALIZATION AND BUSINESS REPORTING USING TABLEAU 4.7.3. EMERGING TECHNOLOGIES AND FUTURE SKILLS FOR BUSINESS LEADERS |
| 4.8 | MASTER THESIS FOR 6 WEEKS IN AN ORGANISATION |

4.1 INTERNATIONAL BUSINESS

1. GENERAL INFORMATION

No. of Credits 04

No. of Hours per week 04

2. PERSPECTIVE OF THE COURSE

International Business concerns those firms that do not restrict their processes to a single state or populace. International business dissects the reasons for the existence of firms engaged in International business, how they flourish in the intricate and unpredictable international environment, and what their undertakings mean for the countries in which they do business. Culture, language, political systems, geography, and socio-economic factors all influence a company's business practices. Therefore, expanses of study comprise of the challenges of managing international companies, whether enormous or diminutive; the rudiments of strategic management; cross-cultural management; globalization; and the regulation and politics of international business.

Students who aspire to intensify their understanding of global markets need to study international business, since it delivers insights into the global economic and business climates. International business studies encompass topics across a spectrum of business fields, from finance and marketing to management and accounting.

3. COURSE OBJECTIVES AND OUTCOMES

OBJECTIVES

To make students to learn how business organizations operate in an international environment.

To understand the impact of international influences on business.

To help students to plan a career in international business.

OUTCOMES

By the end of the course, the students must have increased confidence to take up a career in international business.

4. COURSE CONTENTS AND STRUCTURE

MODULE 1: INTERNATIONAL BUSINESS ENVIRONMENT 10 HOURS

Evolution, Drivers and Challenges of IB as compared to Domestic Business, National and organizational competitive advantage over the world, Modes of entry, Active players in multinational business.

The International environment of IB - Political, Legal, Technological, Cultural, Demographic and Economic environment. Cross-cultural management, levels of culture, models of Culture

MODULE 2: GLOBALIZATION

8 HOURS

Routes of globalization, Modes of International Business-Organizing international business – international designs, factors influencing choice of a design, issues in organization design. Conflict management, reconciliation, adjudication and arbitration issues, supporting Institutions, Negotiations.

MODULE 3: WTO AND TRADING BLOCKS

8 HOURS

WTO and LPG policies, Its Implications on India— Regional Trade Blocks, Integration between countries, levels of integration and impact of integration. International strategic alliances.

MODULE 4: GLOBAL TRADE AND INVESTMENT

10 HOURS

Theories of global trade and investment, Mercantilism, theory of absolute advantage, theory of comparative advantage, factor endowment theory, product life cycle theory, Porter's national competitive advantage.

FDI- in World Economy, horizontal and vertical FDI, benefits of FDI to home and Host Country. FDI- Indian Scenario. EXIM TRADE- Export and Import financing, Export marketing, EXIM policy. Roles of Institutions connected with EXIM trade.

MODULE 5: GLOBAL ETHICS AND E-COMMERCE

10 HOURS

Social responsibility and ethical issues in international business – national differences in ethics and social responsibility, code of conduct for MNC's.

Global E-Business, E- Commerce in India. Atmanirbhar and International Business.

MODULE 6: GLOBAL BUSINESS OPERATIONS 10 HOURS

Global- Operations management and competitive advantage, strategic issues in operations management,(Manufacturing Management, Logistics Management and Procuring), Technology transfers – issues arising out of technology transfers.

International Finance –Balance of Payments

Marketing Management, benefits of international markets, major activities in international marketing

Human Resource Management: Approaches, Expatriation and Repatriation Process, Training, Compensation, Industrial Relations.

5. PEDAGOGY

Conceptual explanation in detail in the class room sessions and relevant cases will give students a better perspective. Live projects should be the part of curriculum compulsorily.

6. TEACHING/LEARNING RESOURCES

ESSENTIAL READINGS

1. Francis Cherunilam; International Business, Prentice Hall of India.
2. Charles Hill, International Business, McGraw-Hill-Irwin.
3. John D. Daniels, Lee Radebaugh and Daniel P. Sullivan, "International Business", Prentice Hall.

REFERENCES

1. Richard M Hodgetts And Fred Luthans, "International Management", McGraw-Hill,
2. Hill, C.W.L. and Jain, A.K., International Business: Competing in the Global
3. Marketplace, 6th Edition, Tata McGraw-Hill Education,
4. Paul, J., International Business, 5th Edition, PHI Learning,
5. Ball, D., Geringer, M., Minor, M. and McNett, J., International Business: The
6. Challenge of Global Competition, Tata-McGraw-Hill Education,
7. Deresky, H, International Management: Managing Across Borders and Cultures, 6th Edition, Pearson.
8. Griffin, R., International Business, 7th Edition, Pearson Education.
9. Anant K Sundaram & J Stewart Black, The International Business Environment, Prentice Hall Of India.
10. Tayeb, Monis H: The Global Business Environment – An Introduction, Sage Publication, New Delhi.
11. Francis Cherunilam, International Business Environment, Himalaya Publishing House.

| ELECTIVE SUBJECTS | |
|--------------------------|---|
| 4.2 | FINANCE 4.2.1.PROJECT MANAGEMENT AND ANALYSIS 4.2.2.INTERNATIONAL FINANCIAL MANAGEMENT 4.2.3.DERIVATIVES AND RISK MANAGEMENT |

4.2.1 PROJECT ANALYSIS AND MANAGEMENT

1. GENERAL INFORMATION

No. of Credits per week 4

No. of Hours per week 4

2. PERSPECTIVE OF THE COURSE

This course develops the competencies and skills for planning and controlling projects and understanding interpersonal issues that drive successful project outcomes. A finance professional needs knowledge of Project management practices within the organization which influences the profitability of the organization. A thorough understanding of all the components of project planning and management will equip a project manager to make better and informed decisions while investing on projects. Hence, the course on “Project Analysis and Management” which orients the learner all factors influencing financial and strategic decisions of project management in a business enterprise is introduced.

3. COURSE OBJECTIVES AND OUTCOMES

OBJECTIVES

To know the project manager’s roles and responsibilities and financial projections.

To understand project selection and criteria and feasibility analysis

To understand UNIDO approach for Social Cost Benefit analysis

OUTCOMES

At the end of the course, student will learn project management design, development, and deployment by using project management tools, techniques, and skills, to understand the implications, challenges, and opportunities of organizational dynamics in project management.

4. COURSE CONTENT AND STRUCTURE

MODULE 1: INTRODUCTION 12 HOURS

Project: Meaning, ten subsystems of project, generation and screening of project ideas, types of projects, Feasibility of a project; Market feasibility, Technical feasibility, Financial feasibility – Projected Cash flow Statement and Projected Balance Sheet; relate capital budgeting concepts to investments on projects, role of a project manager.

MODULE 2: EVALUATION OF PROJECTS 8 HOURS

Project Organization, Project Planning, Project Control, Pre-requisites for successful Project Implementation – Network techniques: Development of Project Network, Time Estimation, scheduling, PERT, CPM, Network Cost System.

MODULE 3: RISK ANALYSIS IN PROJECT MANAGEMENT 18 HOURS

Types and measure of project risk – simple estimation of risk – sensitivity analysis – scenario analysis – Monte Carlo simulation – Decision tree analysis – Managing risk – selection of projects under risk – risk analysis in practice. Social cost benefit analysis: UNIDO Approach, Little Mirrlees Approach. (Theory and Problems)-Special Decision Situations : Choice between mutually exclusive projects, Adjusted NPV, Optimal Timing, Uniform Annual Equivalent (replacement period), and Adjusted Cost of Capital.

MODULE 4: VENTURE CAPITAL PROJECTS 06 HOURS

Venture Capital and Private Equity – Meaning, Stages in venture capital financing, Venture capital investment appraisal process, Valuation of venture capital, Venture capital financing in India, Private equity funding trends

MODULE 5: PUBLIC-PRIVATE PARTNERSHIP PROJECTS 06 HOURS

Infrastructure Projects and PPP – Characteristics of infrastructure projects, Risks in infrastructure projects and managing such risks, Typical structures, Financial evaluation of infrastructure projects, PPP – Meaning, Structures of PPP, Financing sources for PPP projects.

MODULE 6: PROJECT NEGOTIATIONS 06 HOURS

Conflict and Negotiation, The Nature and Type of Negotiation, Project Review and Administrative Aspects, Post Completion Audits, Abandonment Analysis.

5. PEDAGOGY

- a) Lectures.
- b) Demonstrations using Excel
- c) Practical Exercises – Individual and Group
- d) Case Studies.
- e) Business Planning

6. TEACHING/LEARNING RESOURCES

ESSENTIAL READINGS

1. Prasanna Chandra, Projects: Planning, Analysis, Selection, Implementation & Review, Tata McGraw Hill.
2. Bhavesh M. Patel, Project Management, Vikas Publishing House, New Delhi.
3. Vasant Desai, Project Management, Second Revised Edition, Himalaya Publishing House

REFERENCES

1. P.C.K. Rao, Project Management and Control, Sultan Chand & Sons
2. Clifford F. Gray and Erik W. Larson, Project Management, Tata McGraw Hill
3. K. Nagarajan, Project Management, Third Edition, New Age International
4. Project Management: The Managerial Process – Gray & Larson
5. UNIDO SERIES on Project Management.
6. B.B. Goel, Project Management – Principles and Techniques, Deep and Deep
7. Gopalakrishnan P and Ramamoorthy, V.E., Project Management, Macmillan

4.2.2. INTERNATIONAL FINANCIAL MANAGEMENT

1. GENERAL INFORMATION

No. of Credits 4

No. of Hours per week 4

2. PERSPECTIVE OF THE COURSE

All Countries, companies and people on the globe are increasingly integrated in their economic activities. Globalization offers several opportunities but also pose risks.

The course emphasizes on the practical implications of finance theory and its application in international financial management. This subject will help students to understand various analytical tools and techniques for financial decision making in a international setting and prepare them for careers in international finance.

3. COURSE OBJECTIVES AND OUTCOMES

OBJECTIVES

To understand exchange rates, and their relationship with Economic variables.

To study the impact of exchange risk Hedging tools and techniques.

OUTCOMES

After completing this course, students should be able to- Analyse the global financial environment, currency system, relationship between economies and its impact on international transactions and understand functioning of international financial markets.

4. COURSE CONTENT AND STRUCTURE

MODULE 1: GLOBAL MONETARY SYSTEM

5 HOURS

Introduction and Scope of International finance, Evolution of International Monetary System. The current Exchange Rate Agreements, European Monetary System, Fixed vs. Flexible Exchange Rate Regime, Exchange rate policy and Monetary policy, International liquidity and International reserves.

MODULE 2: BALANCE OF PAYMENTS (BOP)

5 HOURS

Introduction, Functions and Principles of BOP, BOP accounting, Components of the BOP, 'Surplus' and 'Deficit' in BOP, Importance and limitations of BOP Statistics, Relationship of BOP with other economic variables. Capital account convertibility.

Module 3: FOREIGN EXCHANGE MARKETS

14 HOURS

Introduction, Structure of Foreign Exchange Market, Mechanics of Currency Trading, Types of Transactions and Settlement Dates, Exchange Rate Quotations and Arbitrage, Exchange Rate Determination and Forecasting, Introduction to Currency Futures, Currency Options, Forwards and Swaps.

MODULE 4: FOREIGN EXCHANGE RATE DETERMINATION 8 HOURS

Introduction, Purchasing Power Parity Theory, Interest Rate Parity Theory, International Fischer's Effect, Pure Expectations Theory

MODULE 5: MANAGEMENT OF FOREIGN EXCHANGE RISK 12 HOURS

Exchange Risk, Types of Exposure, Tools and Techniques of Foreign exchange risk management, Management of Translation Risk Management of Transaction Risk, Management of Economic Risk (including simple problems),

Risk Hedging Strategies: Internal –Netting, Lead and Lags. External – Forwards, Futures, Options, Money-market Hedging, Currency Swaps.

MODULE 6: MANAGING FOREIGN OPERATIONS

12 HOURS

Foreign Direct Investment, Multinational Capital Budgeting (including problems). Control and Performance Evaluation of Multinational Companies.

International Taxations (Double Taxation Avoidance , Relief Provision in India, Special Prov. Relating avoidance of tax), International Banking (International Debt Crisis, Banker's Plan), Financial Depressions -Effects on International Banking. Crypto currency, ADR and GDR.

5. PEDAGOGY

- a) Lectures.
- b) Demonstrations using Excel
- c) Practical Exercises – Individual and Group
- d) Case Studies.

6. TEACHING/LEARNING RESOURCES

ESSENTIAL READINGS

1. Alan Shapiro: Multinational Financial Management , Prentice Hall, New Delhi.
2. Apte, Prakash, “International Finance – A Business Perspective”, Tata McGraw Hill.
3. David B. Zenoff& Jack Zwick: International Financial Management.
4. Rita M. Rodriguez L. Bigame Carter: International Financial Management.
5. V. A. Avadhani: International Finance- Theory and Practice, Himalaya Publishing House.

REFERENCES

1. Madura, Jeff, “International Corporate Finance”, Thomson South-Western.
 2. Vyuptakesh Sharan,, “International Financial Management”, Prentice Hall of India.
 3. Jain, Peyrard, and Yadav’ “International Financial Management”, MacMillan
 4. J. Fred Weston, Bart: Guide to International Financial Management.
 5. Robery O. Edmister: Financial Institutions - markets and Management.
 6. A.V. Rajwade: Foreign Exchange International Finance and Risk Management, Prentice Hall.
 7. Apte P.G., International Financial Management, Tata McGraw Hill,
 8. Eun and Resnik, International Financial Management, Tata McGraw Hill
 9. Bekaert, Greet and Hodrick, Robert J., ‘International Financial Management’, Prentice Hall.
 10. Shapiro, Alan C., ‘Multinational Financial Management’, John Wiley.
 11. Adrian Buckley, Multinational finance, Third Edition, Prentice-Hall of India Pvt. Ltd.,
 12. Madhu Vij, International Financial Management, Excel Books
 13. H.R. Machiraju, International Financial Management, Himalaya Publishing House
 14. Thummuluri Siddaiah, International Financial Management, Pearson
- Note: Latest edition of the readings may be used.

4.2.3.DERIVATIVES AND RISK MANAGEMENT

1.GENERAL INFORMATION

No of Credits 4

No of hours per week: 4

2.PERSPECTIVE OF THE COURSE

The primary purpose behind this course is to make student to understand the dynamics of risk management by using derivatives as a tool and to understand the transfer of risk without the need to trade the underlying. This allows for more effective risk management within companies and the broader economy. In addition, the derivatives market plays a role in information discovery and market efficiency. Despite the benefits, there are criticisms that derivatives are misused and add to market volatility. They are complex financial instruments that are used for various purposes, including hedging and getting access to additional assets or markets.

3.COURSE OBJECTIVES AND OUTCOME

OBJECTIVES

To provide the concepts and foundations of managing financial risk in business enterprises

To provide the concept of Derivatives, its types and how to minimise risk by using derivatives as a tool and acquaint the knowledge of Options and Futures using F&O for Hedging and the development position of Derivatives in India.

OUTCOME

By the end of this course, a student is expected to understand Risks associated stocks and commodities and how to minimise it by using derivatives as a risk management tool.

4.COURSE CONTENT AND STRUCTURE

MODULE 1: DERIVATIVES – AN INTRODUCTION

6 HOURS

Concept of Risk -Types of Risks of a Business Enterprise. Financial Risk and Its Types (Market Risk, Credit Risk, Liquidity Risk and Operational Risk). Risk Analysis in Capital Budgeting (only theory)– Measuring and Managing Capital Budgeting Risks – Sensitivity Analysis, Scenario Analysis, Simulation, Standard Deviation and Co-efficient of Variation, Risk Adjusted Discount Rate Method, Certainty Equivalent Co-efficient Method, Decision Tree Analysis and Probability Distribution Method.

An Introduction to derivatives, Elements of a Derivative Contract, Factors Driving Growth of Derivatives Market, Types of Derivatives, Types of Underlying Assets, Participants in Derivatives Market, Advantages and Disadvantages of Trading in Derivatives Market, Derivative Trade in India – A current scenario.

MODULE 2: FORWARD AND FUTURES

12 HOURS

Forward Contract, settlement of Forward Contract, Futures contract, Futures Contract Specification and Terminologies, difference, Pricing, Arbitrage, Concept of Convergence Relationship between Futures Price and Expected Spot Price, Basis and Basis Risk, Pricing of Futures Contract, Cost of Carry Model. Speculation and Arbitrage using Futures, Long Hedge – Short Hedge, Cash and Carry Arbitrage, Reverse Cash and Carry Arbitrage, Payoff Charts and Diagrams for Futures Contract, Perfect and Imperfect Hedge.

Stocks and Index Futures: Stock & Index Futures Index Futures, forward contracts & stocks, Future contract on indices & individual stocks, Features, specifications, pricing, Hedging, Speculation & arbitrage with stock index futures

MODULE 3: COMMODITY FUTURES

8 HOURS

History and Origin, Types of Commodities Traded, Structures of Commodities Market in India, Participants in Commodities Market, Trading in Commodities in India (Cash and Derivative Segment), Commodity Exchange in India and Abroad, Reasons for Investing in Commodities. Commodity Derivatives, Commodity Exchanges and Commodity Contracts. Pricing Commodity

Forward, Futures & Options. Crude oil, Gold, Base Metal Derivatives. Pricing, hedging, Perfect & imperfect hedge, Basis Risk, Optimal Hedge Ratio. Trading, Clearing and Settlement in Derivatives Market.

MODULE 4 : OPTIONS

12 HOURS

Options Contract Specifications, Terminologies, Call Option, Put Option, American, & European Options. Difference between Futures and Options, Pay-off and Pay-off Diagrams. Understanding Options Quotations, Trading & settlement. Option Pricing: Boundary conditions for option pricing. Factors Affecting Option Premium. Moneyness in case of options, intrinsic value & time value, arbitrage-based relationship of option pricing.

Module 5 OPTIONS VALUATIONS AND STRATEGIES

12 HOURS

Price Difference Approach; Expected Gains Approach; Binomial Model; Risk Neutral Method and Black- Scholes Model – Assumption, Interpretation. Factors affecting option price. Option strategies: Put call parity, Protective Put, Covered Call. Trading Strategies with Options – Straddle, Strip, Strap, Strangle, Spreads- butterfly spread. Options-Sensitivities Delta & Delta Hedging, Theta, Gamma & Neutrality, Greek Letters

Module 6 TRADING, CLEARING AND SETTLEMENT IN DERIVATIVES MARKET **6 HOURS**

Meaning and Concept, SEBI Guidelines, Trading Mechanism – Types of Orders, Clearing Mechanism – NSCCL – its Objectives and Functions, Settlement Mechanism – Types of Settlement. (b) Types of Risk: Value at Risk, Methods of Calculating VaR, Risk Management Measures, Types of Margins, SPAN Margin (only theory).

5. PEDAGOGY

- **Spreadsheets**
- **Live case studies connecting with capital markets**
- **Mock trading with derivatives**

6. TEACHING/LEARNING RESOURCES

ESSENTIAL READINGS

1. FUTURES AND OPTIONS: N D Vohra and B Bagri. McGraw Hill
2. Fundamentals of Financial Derivatives. N. R. Parasuraman. Wiley.

REFERENCES

1. Fundamentals of Financial Derivatives. S S S Kumar. PHI.
2. Options, Future & Other Derivatives - John C. Hull and Sankarshan Basu. Tenth Edition – Pearson
3. Fundamentals of Futures and Options Markets - John C. Hull. Pearson.
4. Introduction to Derivatives and Risk Management (Book Only) 8th Edition by Don M. Chance & Roberts Brooks
5. Derivatives & Risk Management, Rajiv Srivastava, 4th Edition, Oxford Publication House Reference Books:
6. Financial derivatives: theory, concepts and problems – S L Gupta. PHI
7. Derivatives and Risk Management Kindle Edition. Sundaram Janakiraman. Pearson.

| ELECTIVE SUBJECTS | |
|--------------------------|--|
| 4.3 | MARKETING 4.3.1. SALES AND DISTRIBUTION MANAGEMENT AND RETAILING. 4.3.2. SERVICE MARKETING AND CUSTOMER RELATIONSHIP MANAGEMENT. 4.3.3. INTEGRATED MARKETING COMMUNICATIONS AND DIGITAL MARKETING |

4.3.1 SALES AND DISTRIBUTION MANAGEMENT AND RETAILING

1. GENERAL INFORMATION

No. of Credits 4

No. of Hours per week 4

2. PERSPECTIVE OF THE COURSE

Effective Sales and Distribution management is critical to deliver goods and services to the end consumers efficiently and in line with the marketing strategies of a firm. Distribution is not just about reaching the target customers but also about doing it in a profitable manner and in a way that suits the firm's image. Retailing, the last mile of distribution, involves major decisions on types of outlets, merchandising, store management and retailing mix. This course attempts to familiarize students with the strategies involved in sales and distribution management and retailing.

3. COURSE OBJECTIVES AND OUTCOME

OBJECTIVES

To understand the services domain from a marketing perspective.

To understand retailing as a business and have a comprehensive view of the marketing and store management functions in a retailing organization.

OUTCOME

At the end of the course, student must be able to understand the essential components of a service business and manage retailing.

4. COURSE CONTENT AND STRUCTURE

MODULE 1: DISTRIBUTION MANAGEMENT AND MARKETING MIX 8 HOURS

An overview of distribution, Channel levels; Channel formats; Designing channel systems; Channel management; Supply chain management.

MODULE 2: SALES AS A MARKETING FUNCTION 12 HOURS

Sales objectives; Personal selling and Buying situations; Buying decision process; Sales forecasting methods; Organising and staffing sales force; Management of sales territories; Training and motivating sales force.

Analysis of sales and marketing costs, Evaluation of salespeople's performance. comprehensive sales force cases and exercises.

MODULE 3: INTRODUCTION TO RETAILING 10 HOURS

Introduction to retailing; Role in distribution channel; Functions of retailing; Theories of retail development; Types of retailers and Retail formats; Retail management decision process; Retailing environment in India; Global growth opportunities.

MODULE 4: RETAIL STRATEGY 10 HOURS

Consumer shopping behaviour and decision making process; Market segmentation; Target market and retail format; Retail mix; Strategy for competitive advantage; Strategic retail planning process; Location strategy; Growth strategies; Pricing strategy; Communication mix; Measuring performance in retail.

MODULE 5: STORE MANAGEMENT 8 HOURS

Key elements of store operations and managing touch points; Role of a store manager; Store design and layouts; Merchandise planning system; Merchandise buying process; Private labels; Visual Merchandising; Customer service in retailing; Customer relationship management.

MODULE6: WEB, NON STORE AND NON TRADITIONAL RETAILING 8 HOURS

Advantages and disadvantages of e tailing; E commerce business models; Online payment systems; Marketing mix for e tailing; Customer relationship management in e tailing; Other non traditional retailing formats.

5. PEDAGOGY

- Case study
- Live projects and mini projects
- Presentations
- Group discussions

6. TEACHING/LEARNING RESOURCES

ESSENTIAL READINGS

1. Valarie A Zeithml, Mary Jo Bitner and Ajay Pandit , Services Marketing – Integrating customer focus across the firm, McGraw hill –Irwin Publication, 6th edition, 2012
2. SwapnaPradhan , “Retailing Management text and cases”, Tata McGraw hill Education, 4th edition, 2012
3. Michael Levy, Barton Weitz, and Ajay Pandit , Retailing Management, McGraw Hill Education, 8th edition, 2012

REFERENCES

1. PacoUnderhill , Why we buy – The Science of Shopping , Simon & Schuster; Updated and revised edition, 2008.
2. G.P.Sudhakar , Integrated Retail Communication, Prentice Hall of India Pvt Ltd, 2012
3. Sriram B Iyer , Retail Store Operations , Tata McGraw Hill Education Pvt Ltd, Ist Edition , 2011
4. Rosemary Varley and Routledge , Retail Product management: Buying and Merchandising ,Routledge Publication, 2 edition 2005

JOURNALS

1. Journal of retailing and consumer services - elsevier
2. Journal of retailing
3. Journal of services marketing

WEB RESOURCES

1. www.retailmarketing.com
2. www.forbes.com

4.3.2. SERVICES MARKETING AND CUSTOMER RELATIONSHIP MANAGEMENT

1. GENERAL INFORMATION

No. of Credits 4

No. of Hours per week 4

2.PERSPECTIVE OF THE COURSE

Marketing of services has emerged as a distinct area over the last couple of decades. Service industry is a large employer and contributes substantially to the economy. Marketing of services needs additional skills and understanding. There is a need to understand marketing of services including good customer relationship management.

3.COURSE OBJECTIVES AND OUTCOME

OBJECTIVES

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

To give insights about the foundations of services marketing, customer expectations of services and gap existing in the service delivery processes and service Quality.

To understand the need and importance of maintaining a good customer relationship.

OUTCOME

On successful completion of the course students will be able to:

Demonstrate integrative knowledge of marketing issues associated with service productivity, perceived quality, customer satisfaction and loyalty.

Develop blueprint for the services sector and develop a better appreciation of the necessary strategies to create a service excellence.

Recognise the challenges faced in services delivery as outlined in the services gap model.

To use strategic customer acquisition and retention techniques in CRM.

4.COURSE CONTENT AND STRUCTURE

MODULE 1 : INTRODUCTION TO SERVICES MARKETING 12 HOURS

Definition – Service Economy – Evolution and growth of service sector - Challenges and issues in Services Marketing – Services Marketing Mix - Service Blue Printing – GAP model of service quality – Measuring service quality – SERVQUAL – Service Quality Function Development.

MODULE 2: SERVICE DELIVERY AND PROMOTION 8 HOURS

Positioning of services – Designing service delivery System, Service Channel – Pricing of services, methods – Service marketing triangle - Integrated Service marketing communication.

MODULE 3: SERVICE STRATEGIES 8 HOURS

Service Marketing Strategies for health – Hospitality – Tourism – Financial – Logistics - Educational – Entertainment & public utility Information technique Services.

MODULE 4: INTRODUCTION TO CRM & CRM STRUCTURES 12 HOURS

Definitions - Concepts and Context of relationship Management – Evolution - Transactional vs. Relationship Approach – Elements of CRM – CRM Process – Strategies for Customer acquisition – Retention and Prevention of defection – Models of CRM – CRM road map for business applications.

MODULE 5: CRM PLANNING AND IMPLEMENTATION 8 HOURS

Strategic CRM planning process – Implementation issues – CRM Tools- Analytical CRM – Operational CRM – Call center management – Role of CRM Managers.

MODULE 6: TRENDS IN CRM 8 HOURS

e- CRM Solutions – Data Warehousing – Data mining for CRM – an introduction to CRM software packages.

5.PEDAGOGY

Lectures

Case study discussion

Presentation

6.TEACHING/LEARNING RESOURCES

ESSENTIAL READINGS

1.Christopher H. Lovelock and Jochen Wirtz, Services Marketing: People, Technology, strategy Pearson Education, New Delhi,8th edition, 2016.

2.John.E.G.Bateson, K.Douglas Hoffman, Services Marketing, South Western Cengage learning, 4th Edition, 2011.

3.G.Shainesh, Jagdish, N.Sheth, Customer Relationship Management A Strategic Prespective, Macmillan 2010

4.Alok Kumar et al, Customer Relationship Management: Concepts and applications, Biztantra, 2008.

REFERENCE BOOKS :

1. Kenneth E Clow, et al, Services Marketing Operation Management and Strategy, Biztantra, 2nd Edition, New Delhi, 2004.
2. Valarie Zeithaml et al, Services Marketing, 5th International Edition, Tata McGraw Hill, 2007.
3. Christian Gronroos, Services Management and Marketing a CRM in Service Competition, 3rd Edition, Wiley, 2007.
4. R. Srinivasan, SERVICES MARKETING, Prentice Hall of India Private Limited, 4th Edition 2014, New Delhi.
5. Vinnie Jauhari & Kirti Dutta (2017), Services Marketing, Text and cases, 2nd edition.
6. H. Peeru Mohamed and A. Sahadevan, Customer Relation Management, Vikas Publishing 2005.
7. Jim Cathcart, The Eight Competencies of Relationship selling, Macmillan India, 2005.
8. Assel, Consumer Behavior, Cengage, 6th Edition.
9. Kumar, Customer Relationship Management - A Database Approach, Wiley India, 2007.
10. Francis Buttle, Customer Relationship Management: Concepts & Tools, Elsevier, 2004.
11. Zikmund. Customer Relationship Management, Wiley 2012.

4.3.3. INTEGRATED MARKETING COMMUNICATIONS AND DIGITAL MARKETING

1. GENERAL INFORMATION

No: of Credits - 4

No: of Hours per week- 4

2. PERSPECTIVE OF THE COURSE

This course is helpful to understand the various communication tools and their mix and how an advertising agency works to build brands. Essentially the integration of communication mix happens at the advertising agency and how they function to put together a communication campaign for the client to achieve their communication objectives. The second component of this course is about knowing how to leverage the internet to sell, build corporate image and nurture brands.

3. COURSE OBJECTIVES AND OUTCOMES

OBJECTIVES

- To enumerate the role of advertising agency in bringing about coherence between the various communication mix and highlighting the importance of integrating the various components.
- To understand the scope of Indian Media, and guide the students to explore career opportunities in media selling.
- To guide the students to see how companies are leveraging the internet for marketing products and service and build positive image.

OUTCOME

- At the end of the course students will be infused with an interest to build their career in the area of advertisement and related field and will understand the importance of internet marketing and start building their portfolio to get themselves eligible at an entry level in this emerging field.

4. COURSE CONTENT AND STRUCTURE

MODULE 1. INTEGRATED MARKETING COMMUNICATION COMPONENTS AND PROCESS: 8 HOURS

IMC- Need, Tools; Structure of Advertising Agency: Full service agency, Account service (client servicing), Creative department, media department and their functioning; Types of Advertising Agencies; Indian Advertising road map; Acquiring and losing clients, Agency evaluation, Ad agency revenue earning models.

MODULE 2: IMC PLANNING AND CREATIVE EXECUTION PROCESS: 6 HOURS

DAGMAR approach, Setting ad campaign budgets; Creative planning stages, Types of creative appeals, Types of message execution styles for Print Media, TV, Guidelines for evaluating creativity in advertising.

MODULE 3: MEDIA PLANNING, SCHEDULING, EVALUATION 12 HOURS

Vibrant Media spread in Indian- Publications, Television, Radio, outdoor media and Internet Entertainment and channels. Steps involved in media planning, selection of Media Type, Allocation of funds to various media. Media scheduling and related concepts; National Readership Survey, Broadcast Audience Research Council, Radio Audience Measurement, Audit Bureau of Circulation.

MODULE 4: FUNDAMENTALS OF DIGITAL MARKETING 12 HOURS

Significance of Digital Marketing Changing media consumption trends, Difference between traditional marketing communication and internet based marketing communication, Understanding different internet tools: E mail, Usenet newsgroups, Blogs, Pod casting, World Wide Web. Internet; Conceptual clarity on internet related tools: E- marketing, Digital marketing, Blogs, Multichannel Marketing, Social Media Marketing, Viral Marketing; Website planning, E-commerce: Basic Principles, Importance, trends, advantages & disadvantages. E commerce models- B to B, B to C, B to Government, C to C, C to B, C to G.

MODULE 5: SOCIAL MEDIA AND MARKETING 12 HOURS

Social Media in India, Role of Social Media in Politics, Business, Recruitment, Public Opinion. Face book/ LinkedIn, Twitter/ YouTube: In India, Services offered, advertising options. Blogs: Importance, types and advertising options. Tracking and monitoring social media. Viral Marketing

MODULE 6: SEARCH ENGINE MARKETING AND ONLINE REPUTATION MANAGEMENT: 6 HOURS

Google Ad words, Page ranking, Search engine optimization, Search Engine Marketing Paid V/S unpaid models, On-line reputation management, Importance strategies, Addressing Negative comments.

5.PEDAGOGY:

Conceptual inputs through class rooms. Cases studies to drive decision making based on business situations that evolve from time to time. Small project and simulations based on apps to develop working knowledge in the subject.

TEACHING/ LEARNING RESOURCES:**Essential Reading**

- 1.Prescribed Text Books: Advertising and Promotion- An integrated marketing communication perspective- George E Belch & Michael A Belch, Mc Graw Hill
- 2FOUNDATIONS OF ADVERTISING – THEORY AND PRACTICE- SA Chunawalla & K C Sethia- Himalayan Publication
- 3.ADVERTISING & IMC: PRINCIPLES AND PRACTICES, MORIARTY, MITCHELL, WOODS, WELLS AND WELLS, PEARSON
- 4.INTERNET MARKETING, CHAFFEY/ ELLIS CHADWICK, JOHNSTON/MAYER- 3rd EDITION- PEARSON.
- 5.DIGITAL MARKETING- RAGHAVENDRA K, SHRUTHI PRABHAKAR, HIMALAYAN PUBLICATION HOUSE.

References

- 1.Integrated Advertising, Promotion and Marketing Communications, Clow and Baack, Thompson
- 2.Digital Marketing, Seema Gupta, Tata McGraw Hill
- 3.Fundamentals of Digital Marketing, Puneeth Bhatia, Pearson

| ELECTIVE SUBJECTS | |
|--------------------------|--|
| 4.4 | HUMAN RESOURCES 4.4.1. GLOBAL HRM 4.4.2. STRATEGIC HRM 4.4.3. INDUSTRIAL RELATIONS AND HR AUDIT |

4.4.1 GLOBAL HRM

1.GENERAL INFORMATION:

No. of Credits 4

No. of Hours per week: 4

2.COURSE PERSPECTIVES

With the advent of globalization, organizations - big or small has started incorporating in their policies Global HR practices. There is an interdependence between organizations in various areas of Human Resource Management. Today companies are emerged with workforce diversity and cultural integration to meet the growing demand for competent global workforce. This has led to the development of Global Human Resource Management.

3.COURSE OBJECTIVES AND OUTCOME

OBJECTIVES

- To be able to assess the extent to which multinational companies can have Global HRM strategies, policies and practices.
- To apply concepts, approaches, and models to enumerate global scenario

OUTCOME

- To sensitize the students to Global HRM policies and procedures and inculcate Global thinking in their learning process.

4.COURSE CONTENT AND STRUCTURE

MODULE 1: GLOBAL HRM AN INTRODUCTION

8 HOURS

Introduction to Globalization of HRM, Differences in Global HRM practices - Global Workforce Dynamics, Navigation and Importance of Cross-cultural and Multi-generational Workforce and Communication – Host Country Environment, MNC's Behavior in Host Country Environment- Cross Cultural implications of Merger and Acquisition, HRM Implications and Managing Cross Border Integration- Emergence of Global H R Manager.

MODULE 2: GLOBAL ASSIGNMENTS

10 HOURS

Staffing policies, Motives for international transfers, Global Outsourcing, Alternative forms of international assignments, The international assignment process, Dimensions of international assignment success, Women in Global Assignment - Review of GHRM approaches and their Implications, A 'Crossvergence' Approach, GHRM Models and their applications – Expatriation and repatriation, Selection methodology of expatriation, Process of repatriation, job related adjustments.

MODULE 3:MANAGING GLOBAL HR IN VIRTUAL ORGANIZATION

10HOURS

Training and development in the global environment - Concepts and Models, Development of global leaders, Expatriate development, Technology in Global Training Management – Key components of Performance Management Systems, Factors affecting Culture and Performance Management Systems, Performance Management Systems for Expatriates, Performance Measurement Issues -Strategic Career Management, Common Career Development interventions, career Counselling.

MODULE 4: COMPENSATION MANAGEMENT IN GHRM CONTEXT

10 HOURS

The Influence of Institutional and Cultural Factors on Compensation Practices Around the World, National Differences in Compensation, Incentive Application and Globalization, Contracting for Success in the Era of globalization, Incentives to stimulate innovation in a global context, Executive Compensation in an International Context- A Global Perspective on

Executive Compensation, Compensation and National Culture, Pay for Performance for Global Employees - Global Wages in Industries with Low Entry Barrier Occupations, Employee Benefits Around the World.

MODULE 5: INDUSTRIAL RELATIONS IN GHRM

10HOURS

Equal opportunities, Diversity management, Work–life balance: practices and discourses - Contemporary Developments in Global Industrial Relations, International Labour standards, International collective bargaining – Ethics and Corporate Responsibility, Sustainability through the integration of CSR and HR policy.

MODULE 6: TRENDS IN GHRM

8HOURS

Global Demographic Trends, The Growing Working-age Population in Developing Countries, Global Workforce Challenges, Global Workforce Opportunities, Changing trends in International Employment the Future of Global Careers.

5.PEDAGOGY

- Lectures
- Practical Exercises – Individual and Group
- Case Studies

6.TEACHING/LEARNING RESOURCES

ESSENTIAL READINGS

1.Aswathappa K, International Human Resource Management, TMH Publications

2.IndraniMutsuddi: Managing Human Resources in the Global Context, New Age international publishers, latest edition

3.Srinivas R Kandula, International Human Resource Management, SAGE Publications

REFERENCES

1. Anne-Wil Harzing and Ashly H. Pinnington, 4th Edition, International Human Resource Management, SAGE Publications

2.IndraniMutsuddi: Managing Human Resources in the Global Context, New Age international publishers, latest edition

3.Liza Castro Christiansen et al, 2nd Edition, The Global Human Resource Management Case Book, Routledge.

4.SonalMinocha and Dean Hristov, Global Talent Management, SAGEPublications

5.Tony Edwards, Chris Rees: International Human Resource Management, Pearson, latest edition.

6.Willy McCourt, Derek Eldridge, Global Human Resource Management: Managing People inDeveloping and Transitional Countries, Routledge Publications

WEB RESOURCES

- <https://www.coursera.org/lecture>
- <https://www.jhrm.eu>
- <https://think.taylorandfrancis.com/journal>

4.4.2 STRATEGIC HRM

1.GENERAL INFORMATION:

No. of Credits 4

No. of Hours per week: 4

2.COURSE PERSPECTIVES

Strategic management of people to enhance the organization's effectiveness. Human resource management principles, strategies, processes and practices such as planning, recruitment and selection, training and development, performance management, rewarding and maintaining an effective workforce.

3.COURSE OBJECTIVES AND OUTCOME

OBJECTIVES

To help students understand the factors of change in the political, social, environmental and the economic scenarios that has transformed the role of HR functions from being a support function to strategic function.

OUTCOME

Students will have a better understanding of the tools and techniques used by organizations to meet these challenges

4.COURSE CONTENT AND STRUCTURE

MODULE 1: INTRODUCTION TO SHRM 08 HOURS

HR environment,HRM in knowledge economy, Concept of SHRM Investment.

Perspective of SHRM, Evolution of SHRM, Strategic HR vs. Traditional HR –Barriers to strategic HR, Role of HR in strategic planning.

MODULE 2 : STRATEGIC APPROACHES AND PERFORMANCE 12 HOURS

Strategy in the 21st Century, Understanding Organisational Disruption-VUCA Environment, Linking business strategy with HR strategy - HR bundles approach, best practice approach - Business strategy and human resource planning - HRM and firm performance linkages - Measures of HRM performance - Sustained competitive advantages through inimitable HR practices.

MODULE 3 : SHRM FRAMEWORK 06 HOURS

HR Systems - Staffing systems - Reward and compensation systems - Employee and career development systems - performance management systems - Strategic fit frameworks ,Various Strategic Management frameworks.

MODULE 4 : CONTEMPORARY HR ISSUES 10 HOURS

Strategic options and HR decisions – Downsizing and restructuring - Domestic and International labour market - Mergers and acquisitions - Outsourcing and off shoring. Different approaches to International Mergers and Acquisitions.

MODULE 5 : GLOBAL CONTEXT OF SHRM 10 HOURS

Strategic Responses of Organisations to Changing Environment – Portfolio process and structure related strategic responses. M & As and Strategic HR.Global perspective of SHRM.

MODULE 6 : HR ACTION PLAN 10 HOURS

Conduct an Interview with CEO or Authorised authority and data collection on Strategic responses of Organisations to changing environment (Ref. Srinivas R. Kandula PHI 2012)

Interview schedule for conducting case study.

- Interviewee's awareness / knowledge of strategic responses being planned / implemented / progressed in the organisation.(common)
- Compatibility between voluntary participative forums and collective bargaining forum (HR Managers)
- Reasons for strong / weak / no relationship (positive or negative) between strategic responses and SHRD system. (HR Manager / Individual / Trade Unions)
- Unions perception on the commitment of employer, frontline officers and workers in SHRD system (Trade union leaders)
- **PEDAGOGY**

A variety of teaching methods will be employed which will include case analysis - self-assessment exercises - group projects - team-based projects – lectures - guest speakers - video

6.TEACHING/LEARNING RESOURCES

ESSENTIAL READINGS

1.Anuradha and Aradhana, “Strategic Human Resource Management, SAGE Publications”

2.Gary Rees and Paul E. Smith, Strategic Human Resource Management, SAGE Publications

REFERENCES

1. Boxall P. and J Purcell. Strategy and Human Resource Management, Palgrave latest edition.
2. K. Aswathappa, “Human Resources & Personnel Management”, McGraw Hill Publication
3. Mello- Jeffrey A., “Strategic Human Resource Management”, Thomson Learning Inc,
4. Paul Boselie. Strategic Human Resource Management. Tata McGraw Hill. 2011
5. Srnivas and R.Kandula, “Strategic Human Resource Development”, PHI Publication.

4.4.3 INDUSTRIAL RELATIONS AND HR AUDIT

1.GENERAL INFORMATION

No. of Credits 4

No. of Hours per week: 4

2.COURSE PERSPECTIVES

The legal aspects of HR and our legal system have a pervasive impact on business activities. IR executives frequently raise issues which should be carefully evaluated as to their legal consequences before they are implemented. HR Audit emerged as a significant exercise in the process of organizational evolution. The need of Human Resource (HR) Audit involves a scrutiny of all activities of HR Department that contribute to optional performance of the employees of the organization.

3.COURSE OBJECTIVES AND OUTCOME

OBJECTIVES

- To build awareness of certain important and critical issues in Industrial Relations
- To develop understanding of the Role and Process of HR Audit in Organisation at different levels.
- To Appreciate HR Audit in the context of changing forms of organisation.

OUTCOME

By the end of this course the student would learn basic knowledge of the Indian Industrial Relations System and its distinctive features. Also, students would learn the importance of HR Audit in Organisation.

4.COURSE CONTENT AND STRUCTURE

MODULE 1: INDUSTRIAL RELATIONS POLICIES & TRADE UNIONS 12 HOURS

Evolution of IR policies in India - Approaches to IR &HR Relations -the concept and nature of industrial relations, causes of poor industrial laws, handling of industrial relations, industrial unrest, Suggestions to improve industrial relations, Participative management and Employee empowerment , recent developments in industrial relations. Trade Union- Theories, Constitution, Development and issues. Trade Union as Collective Bargaining Agents.

MODULE 2: LABOUR LEGISLATIONS AND WELFARE 12 HOURS

Labour legislation in India - Social security and welfare legislations - Concept of social security , various aspects of labour legislations, objectives and activities of ILO, the impact of ILO on Indian labour organisations, the obstacles in adoptions of conventions and recommendations, Labour Welfare in India.

MODULE 3: INTRODUCTION OF HR AUDIT, PROCESS AND METHODOLOGY 8 HOURS

Emerging Good HR Practices, Concept of HR Audit, Objective, Need and Types of HR Audit, Approaches to HR Audit, Role and Functions of HR Auditor. Levels of HR Audit, Corporate Level HR Audit, Functional Level HR Audit, Steps and Process in HR Audit. Methodology of HR Audit- Individual Interview, Group Interview, Observation, Analyses of Secondary data, Principle of effective HR Audit.

MODULE 4: COMPREHENSIVE HR AUDIT AND AUDIT OF EMPLOYEE SAFETY 8 HOURS

Comprehensive HR Audit and Audit of Employee Safety and Health Environment, Audit of HR Planning, Recruitment, selection, Recruitment and Selection Audit Checklist, Induction/ Orientation Audit Checklist, Training and Development Audit Checklist, Health and Safety Audit Checklist.

MODULE 5: PERFORMANCE MANAGEMENT AUDIT

8 HOURS

Audit of Performance Management System and Audit of Compensation and Benefits Programs, Performance Management Audit- Performance Management Audit checklist, Documents required for Audit, Data Reliability Audit, Audit of Performance

Appraisal Techniques, HR Competence Audit. Employee Compensation and Benefits Audit Checklist, Documents Required for Checklist, Best Practices for compensation Audit, Audit of Reward and recognition.

MODULE 6: HR SCORECARD AND HR AUDIT REPORT 8 HOURS

How to Approach HR Scorecard, Constituents of scorecard, Balanced Scorecard. HR Audit Report- Purpose and Preparation of HR Audit Report, Process of Preparing an HR Audit Report, Use of HR Audit Report for Business Improvement.

5.PEDAGOGY

- Lectures
- Practical Exercise – Individual and Group
- Case Study

6.TEACHING/LEARNING RESOURCES

ESSENTIAL READINGS

1. Industrial Relations, Trade Unions, and Labour Legislation, PRN Sinha, Pearson's education 2000
2. Rao, T.V. (2014). HRD Audit - Evaluating the Human Resource Function for Business Improvement, 2/e; New Delhi: SAGE.

REFERENCES

1. Industrial relations- Arun Monappa-tata McGraw hill-2000
2. Monappa, Arun, Ranjeet Nambudiri, and Patturaja Selvaraj (2016). Industrial Relations and Labour Laws, 2/e; New Delhi: McGraw Hill Education
3. Rao, T.V. (2008). HRD Scorecard 2500, 1/e; New Delhi: Response Books 2
4. Sinha, P.R.N., InduBala Sinha, and Seema Priyadarshini Shekhar (2017). Industrial Relations, Trade Unions, and Labour Legislation, 3/e; New Delhi: Pearson Education
5. Udai Pareek and Rao, T.V., (2012). Designing and Managing Human Resource Systems, 3/e; New Delhi: Oxford & IBH Publishing Co.

| ELECTIVE SUBJECTS | |
|--------------------------|--|
| 4.5 | ENTRPRENEURSHIP AND START-UPS 4.5.1. TECHNOLOGY FOR NEW VENTURES 4.5.2. SCALING UP AND SUSTAINABILITY OF START-UPS 4.5.3. ENTREPRENEURIAL FINANCE |

4.5.1. TECHNOLOGY FOR ENTREPRENEURSHIP

1. GENERAL INFORMATION

| | |
|----------------------|---|
| No.of Credits | 4 |
| No.of Hours Per Week | 4 |

2. COURSE PERSPECTIVES

This subject is introduced keeping in mind the growing role of technology in the present dynamic world.

The VUCA world of today is heavily reliant on technology and anything and everything is driven by technology including business. The literacy paradigm has shifted from not just traditional education but has expanded to technical knowhow. Many of the businesses have shifted to virtual platform either partially or completely. Hence it is always wise for the budding entrepreneur to have a full hand understanding of the virtual platforms, business transactions and various related tools and techniques. The subject will dab a little bit of everything as it is the need for the hour in the uncertain environment.

3. COURSE OBJECTIVES AND OUTCOMES

OBJECTIVES

1. To make the students aware of the importance and role of technology in entrepreneurship and the various uses, abuses, and opportunities available in present scenario.
2. To acquaint them with challenges of starting new ventures and enable them to investigate, understand and internalize the process of setting up a business with favourable usage of technology.

OUTCOMES

By the end of the course, the student should be able to

1. Acquire Hands on Knowledge of different technological tools for starting up their venture.
2. Develop and apply strategies for business competition with technological techniques.
3. Build a sustainable business venture through the effective usage of technology.

4. COURSE CONTENT AND STRUCTURE

MODULE 1: TECHNOLOGY FOR NEW AGE ENTREPRENEURS

8 HOURS

Introduction – Importance of technology for an Entrepreneur, Role of Technology in starting a New Venture. Benefits of using technology for Startups. Technologies that drive Entrepreneurship – trends and success stories.

MODULE 2: DIGITAL ECOSYSTEM FOR STARTUPS

10 HOURS

Digital Ecosystem for Business – Digital Management of Core Business Functions, Evolution of Value Chains and Business Models. Digital Platforms – Website Development, SEO, Affiliate Marketing, Social Media Marketing, Email Marketing. Digital Promotion and Engagement– Optimizing Content, Social Media Engagement, Usage of various tools for tracking Digital Marketing initiatives.

MODULE 3: DATA SCIENCE AND NEW VENTURE CREATION

12 HOURS

Enterprise Big Data – Characteristics of Big Data, Four Forms of Pattern Identification, Types of Analytics and purpose, Data

Types. Business Intelligence for Decision Making - Data Pipeline, Properties of Data Pipeline, Evolution of Data Pipelines. Data Pipeline Process – Setting the Environment, Publishing Events, Storing Events. Data Flow through Google Cloud Platform. Data Metrics – tracking the health of start-ups through KPIs, Reporting with R, Base R, ETLs. Data Reporting – Google Data Studio, Tableau, Custom Tooling.

MODULE 4: LEVERAGING AI, VR, AND AR FOR BUSINESS SUCCESS

8 HOURS

Introduction to AI, VR and AR. How businesses use AI – Cross Referencing Data, Consumer Behaviour Tracking and forecasting, Fraud detection, Personalization of marketing Communication – Chatbots. VR/AR applications to Business – Managing Workforce, Customer Experience Management, Online Shopping. Scope and opportunities of using VR/AR in different sectors in India.

MODULE 5: APPLICATION OF IOT FOR VENTURE DEVELOPMENT 10 HOURS

Introduction to IOT - Computing Devices, Digital Machines, UIDs. Networks and Interactions – Human to Human, Human to Computer. Usage of Sensors & Processors, Automation Processes, Customer transactions, HR Costs, SCM, Logistics Operations. Business decisions using IOT, Contemporary Smart Business Models.

MODULE 6: CYBER SECURITY STRATEGIES FOR ENTERPRISES

8 HOURS

Approaches to Cybersecurity- Computer Security, Websites Security, Network Security, Large Data Breaches. Cyber Threats: Types of attacks, How attacks are carried out?, Attack Vectors. Firewalls and Mitigation Tools, Proactive Security Measures. Effectiveness and Safety of Payment Gateways, Use and Abuse of Crypto currency in Business practices.

5. PEDAGOGY

A mix of lectures, Simulations, Dynamic Visualizations, Virtual Labs, Computational modelling, Mobile Learning, Project based learning, Online learning Platform and MOOC Courses.

1. Role Playing
2. E-COMMERCE Simulation Exercise

6. TEACHING/LEARNING RESOURCES

ESSENTIAL READINGS

1. Ray Rothrock, Richard A. Clarke, Digital Resilience: Is Your Company Ready for the Next Cyber Threat, 2018,
2. Ajay Agrawal, Joshua Gans, Avi Goldfarb, Prediction Machines: The Simple Economics of Artificial Intelligence, Harvard Business Review Press.
3. George Gilder, “Life after Google: The Fall of Big Data and Rise of the Blockchain Economy, Financial Times Book, 2018
4. Thomas M Siebel, Digital Transformation: Survive and Thrive in an Era of Mass Extinction, RosettaBooks, 2019

REFERENCES

1. Kenneth C. Laudon and Jane P. Laudon, “Information Systems”, Pearson Publication. 2013. Dorling Kindersley (India) Pvt. Ltd.
2. O’Brien, Management, Info Systems, Tata McGrawhill, Latest
3. Giridhar Joshi, Management Information Systems, Oxford University Press, 2013.

4.5.2. SCALING UP AND SUSTAINABILITY OF START-UPS

1. GENERAL INFORMATION

| | |
|-----------------------|---|
| No. of Credits | 4 |
| No. of Hours Per Week | 4 |

2. COURSE PERSPECTIVE

The skill set required to manage a large firm largely differ from that required to manage a small firm. The lack of which will hold back an entrepreneur from scaling up. This course will acquaint the management students with those challenges and skills to equip them to face the challenges of scaling up.

3. COURSE OBJECTIVES AND OUTCOMES

OBJECTIVES

This course aims to acquaint the students with the challenges of scaling up and strategies of scaling up. Also, it will guide them to attain sustainable growth of the businesses.

OUTCOME

By the end of the course the students will possess knowledge required to assess and take decision on scaling up of a venture They will be well equipped to take care of issues associated with scaling up of a venture

4. COURSE CONTENT AND STRUCTURE

MODULE 1 - OVERVIEW OF THE START-UP ENVIRONMENT

8 HOURS

Start-ups eco system – meaning, importance of a sound eco-system; Business environment and uncertainty; Environment scanning, adaptability and sustainability of business; Growth Vs Scaling. Start-up life cycle – Scaling phases; vision & mission.

MODULE 2 - ASSESSING AND IDENTIFYING THE NECESSITIES FOR SCALING UP

10 HOURS

Assess the readiness to scale-up – Assess robustness of current business – optimize core business functions - Developing new processes – Change over from Multifunctional teams to specific departments; Consequences of Premature and rapid scaling.

MODULE 3 - ENTREPRENEUR READINESS

10 HOURS

Difference in managing small firm to large enterprise; Transition from people to process - Goal setting for sustainability and value creation, Women entrepreneurs in India, Key characteristics – Managing complexities – Leadership - Delegation of power- Decentralization; Organization Structure and communication – Organization culture - Right people on right job; Deployment of right technology.

MODULE 4 – BUSINESS MODEL & STRATEGIC CONTROL SYSTEMS

10 HOURS

Identification of sustainable business models through value creation; Types of Business Models; Automate and Outsource; Business Model Innovation – Scalable Business Models - Scalability patterns in business models - business scalability matrix – Primary and secondary Archetypes, Online business models.

MODULE 5 – STRATEGIES TO SCALE UP

10 HOURS

Leveraging of resources, Automate and digitize, invest in technology and information security policy. Cloud based tools - CRM, customer support, team communications, project management, Marketing & social media management- choose markets with growth potential and customer segments - Use appropriate tools - minimum viable product (MVP) development, ecosystem maps, IP portfolio, Crowd-funding, product road-map, ESOPs, term sheets, competition metrics, Forge strong strategic tie-ups. Methods of growing – Franchising, Licensing, Joint Ventures, Mergers & Acquisitions.

MODULE 6 – EFFECTIVE IMPLEMENTATION AND REALIGNMENT

8 HOURS

Set Goals and Time-lines – Monitor growth cycle – Measuring the effectiveness – Review – Re-align. Discuss scaling up case studies from different industries – e-commerce, Software, Services and Manufacturing.

5.PEDAGOGY

A Classroom Lecture, Case Studies, Group project and Individual assignments, Visit an entrepreneur and interview to understand various issues in scaling up

6.TEACHING/LEARNING RESOURCES

ESSENTIAL READINGS

- 1.Robert I Sutton, Hayagreeva Rao (2014) Scaling Up Excellence: Getting to More Without Settling for Less – Crown Publishing Group
- 2.Frank Mattes (2019) – Lean Scaleup: Turn Innovation Concepts into Business Impact – Independently published

REFERENCES

- 1.Peter Cohan (2019)Scaling Your Startup: Mastering Four Stages from Idea to \$ 10 Billion- Apress
- 2.Howard Love (2016); The Start-Up J Curve: The Six Steps to Entrepreneurial Success Greenleaf Book Group Press
- 3.Phadke Uday, Vyakarnam Shailendra (2018);The Start Up Manual : The Handbool for innovators, Entrepreneurs, Teams and Firms : World Scientific
- 4.Henry Chesbrough (2006); **Open Business Models: How To Thrive In The New Innovation Landscape** : Harvard Business Press
- 5.Sangeet Paul Choudary, Geoffrey G. Parker, Marshall Van Alystne (2015); Platform Scale: How an Emerging Business Model Helps Startups Build Large Empires with Minimum InvestmentPlatform - Publisher -Thinking Labs
- 6.Salim Ismail (2014) Exponential Organizations: Why new organizations are ten times better, faster, and cheaper than yours; Diversion Books
- 7.Charles Baden-Fuller, Vincent Mangematin (2015) Business Models and Modelling ; Emerald Group Publishing,
- 8.The Concept of Business Model Scalability Morten Lund 1 and Christian Nielsen - Journal of Business Models (2018), Vol. 6, No. 1, pp. 1-18

4.5.3.ENTREPRENEURIAL FINANCE

1.GENERAL INFORMATION

| | |
|----------------------|---|
| No.of Credits | 4 |
| No.of Hours Per Week | 4 |

2.COURSE PERSPECTIVE

The Entrepreneurial Finance course prepares students to be competent in entrepreneurship and corporate finance management skills. The course focuses on specific financial planning and financial decision making needs of entrepreneurial ventures, including start up and development phase financial and management problems.

3.COURSE OBJECTIVES AND OUTCOMES

OBJECTIVES

Entrepreneurial Finance examines the elements of entrepreneurial finance, focusing on technology-based start-up ventures and the early stages of company development.

The course addresses key questions which challenge all entrepreneurs: how much money can and should be raised; when should it be raised and from whom; what is a reasonable valuation of the company; and how funding, employment should contracts and exit decisions are structured.

OUTCOMES

It aims to prepare students for formulating decisions, both as entrepreneurs and venture capitalists.

In addition, the course includes an in-depth analysis of the structure of the private equity industry

4.COURSE CONTENT AND STRUCTURE

MODULE 1: INTRODUCTION TO ENTREPRENEURIAL FINANCE

08 HOURS

Introduction; Meaning; Definitions; Concepts; Importance & Applications to the Entrepreneurial Finance; Corporate Finance VS. Entrepreneurship Finance; Sequence of New Venture financing; Regulatory considerations; financial distress affecting, financing choices.

MODULE 2: BUSINESS EVALUATION AND VALUATION

10 HOURS

Introduction; Business Plan Development; Checklist of Finance Information; Business Plan Development Sources, Government Schemes, Key factors of Valuation; Methods of Asset Valuation (Simple Problems)

MODULE 3: VENTURE CAPITAL FUNDS

08 HOURS

Introduction to Venture Capital Industry; Venture Capital Partnerships; Types of Funds; Investment Characteristics; Credible Finance Proposals; Amount and Staging of Investment; Financial Projections; Investment Expectations.

MODULE 4: ISSUES OF FINANCING START-UPS AND SMALL FIRMS

08 HOURS

Introduction and Changing Landscape of Small Firm Finance; Time Series Perspective on Credit Availability and Cost; Start-up Financing; On Going Financing of Small Firms; Bank Consolidation and Small Firm Finance

MODULE 5: EXIT AND TURNAROUND STRATEGY

10 HOURS

Components of Exit Strategy; Importance of Exit Strategy; Differing Perspectives; Valuation by Revenue Multiples; Compression of Return by Exit Type; Options for exit; Acquisition, Earn-Out; Debt-Equity Swaps; Merger; Management Buyout; Liquidation; Leveraged Buyout

MODULE 6: OPPORTUNITIES TO DO BUSINESS & RAISE CAPITAL – A GLOBAL PERSPECTIVE 12 HOURS

Introduction to Mind-set of Global Investors; International Collaborations; International Sources of Funds; Basic Considerations;

Angel & Venture Capitalists Concepts and Application.

5.PEDAGOGY

The course will consist of a combination of lectures, case discussions and building / analysing Excel financial models. The course focus on practical managerial implications and considerations. Excel proficiency is essential to complete the course successfully.

6.TEACHING / LEARNING RESOURCES

ESSENTIAL READINGS

- 1.Rassoul Yazdipour: Advances in Entrepreneurial Finance, Springer Publication
- 2.Gary Gibbons: Entrepreneurial Finance: A Global Perspective, Sage Publication
- 3.Steven Rogers: Entrepreneurial Finance, McGraw Hill Publication

REFERENCES

- 1.John B Vinturella & Suzanne Erikson; Raising Entrepreneurship Capital
- 2.Janet Kiholm Smith, Richard L. Smith, Richard T. Bliss: Entrepreneurial Finance, Stanford University Press
- 3.Luisa Alemany, Job J. Andreoli: Entrepreneurial Finance: The Art and Science of Growing Ventures, Cambridge University Press

MODULE 4: RESOURCE OPTIMIZATION IN PROJECT MANAGEMENT**8 HOURS**

Resource planning, Resource levelling and Resource smoothing; Quality Function Deployment in Project Management (Industry Standard); Sensitivity Analysis – Overview, Methods and Techniques, Interpretation of solution.

MODULE 5: PROJECT RISK MANAGEMENT**10 HOURS**

Risk Management Process – Risk Identification, Risk Assessment; Risk Response Development – Mitigating Risk, Avoiding Risk, Transferring Risk; Risk Management in organizations; Risk Management methodologies; Improvement methodologies.

MODULE 6: CONTINGENCY PLANNING**10 HOURS**

Contingency Planning – Technical Risk, Schedule Risk, Cost Risk, Funding Risk, Environmental Risk, Business Continuity Plan, Disaster Recovery; Opportunity Management; Contingency Funding and Time Buffers – Budget Reserves, Management Reserves, Time Buffers; Risk Response Control; Change Control Management.

5.PEDAGOGY:

Emphasis have to be given on class room teaching, practices like problem solving should be the part of explanation and compulsory mini project assignments to be given to enhance the students understanding of the subject. Identification and development of self as a resource. Event planning, management and evaluation with reference to – Managerial Process, Resource Optimization. Case studies can be used to explain concepts wherever possible.

6.TEACHING/LEARNING RESOURCES**ESSENTIAL READINGS**

1. Gerardus Blokdyk, “Resource Optimization A Complete Guide - 2020 Edition”, 5starcooks Publication.
2. Manoj Kumar, “Resource Optimisation Through Environmental Leadership”, K W Publishers Pvt Ltd.

REFERENCES

3. Barnali Roy Choudhury, “Resource optimization”, UNESCO 2015.
4. Anand J. Kulkarni, Suresh Chandra Satpathy, “Optimization in Machine Learning and Applications”, Springer.
5. Project Management Institute’s Project Management Body of Knowledge (PMBOK) ©
6. Clifford F. Grey, Erik W. Larson, Gautam V. Desai, “Project Management – The Managerial Process”, Tata McGraw Hill Publication.

4.6.2.SUPPLY CHAIN MANAGEMENT

1.GENERAL INFORMATION

No.of Credits 4

No.of Hours Per Week 4

2.COURSE PERSPECTIVES

Every business function needs supply chain from FMCG to Industrial products which involves raw materials to produce a finished product. This mean every stage of supply chain - involvement of suppliers, manufacturing, banking, insurance, and customers are critical. This helps senior management to take decisions. Supply Chain helps in decision making and helps to solve complex supply chain problems.

3.COURSE OBJECTIVES AND OUTCOME

OBJECTIVES

1. Demonstrate basic understanding of concepts about supply chain management
2. Understanding real-time supply chain data requirements through best practices adopted by organizations

OUTCOME

At the end of the course student can Exhibit critical thinking capabilities that are necessary to interpret them as requirement by the management andAcquire competency in the area of forecasting, creating reports for seamless decision making

3. COURSE CONTENT AND STRUCTURE

MODULE1: INTRODUCTION TO SUPPLY CHAIN MANAGEMENT 10 HOURS

Introduction and Concept of Supply Chain Management – Evolution of Supply Chain Management –Evolving Structure of Supply Chain (Old versus New) – Difference between Logistics versus Supply Chain Management –Partners in the Supply Chain Structure – Supply Chain Design

Supply Chain Visibility – Planning–Execution – Finance – Infrastructure – Operations – Supply Chain Facilities Layout – Lead Time – SafetyStock – Stock Keeping Units (SKUs) –Cross Docking – Difference between Replenishment and Fulfillment Replenishment order, Recorder Point Models – Multichannel Inventory systems –Inventory optimization – Inbound and Outbound Logistics, Reverse Logistics, Supply Chain Integration – Supply Chain Performance

MODULE 2 SUPPLY CHAIN MODELS 8 HOURS

Types of Supply Chain Models - The continuous flow models - The fast chain models - The efficient chain models - The custom configured model - The agile model - The flexible model - Supply Chain Operations Reference Model (SCOR Model) – SupplyChain Risks Modeling and Management

MODULE 3 PROCEDURES AND DOCUMENTATION 08 HOURS

International Trade Procedures & Documentation , IEC Codes or The Harmonized System, Inland Container Depots (ICD), Free on Board, Types of Warehouses –Customs Bonded Warehouses, Custom Broker, INCO Terms, Documents requirement for shipments – Automated Export Systems – UN convention on shipping information

MODULE 4 WMS AND MATERIAL HANDLING EQUIPMENTS 10 HOURS

Warehouse Management Systems – Location of the Ware house – Types of WMS – Warehouse Contracts –TheWarehousing (Development and Regulation) Act, 2007–Warehouse Safety and Security

IndustrialMaterial Handling Equipment, Types of Material Handling Equipment’s –Packaging and Labeling

MODULE 5: DISTRIBUTION MANAGEMENT 12 HOURS

Role of Transportation in Supply Chain – Challenges in Transportation – Transportation Strategies – Transport Management System – Route Management Planning - Dynamic Routing and Scheduling – Factors to be considered for Route Optimization – Route Analysis – Multimodal Transportation – Distribution Management– The Role of Distribution in Supply Chain Management - Role of intermediaries including freight booking, shipping agents, C&F agents

Characteristics – - Conference Chartering operation- Freight structure and practices – Chartering principles and practices

Air transportation – Carrier consignee liabilities – Cargo handling – Information Support System.

MODULE 6: IT DRIVEN AND GREEN SUPPLY CHAIN MANAGEMENT 08 HOURS

Supply Chain Software - Supply Chain-Related IT Costs –Relation to ERP: E-procurement – E-Logistics – e- Auctions - – E-markets – E- Business Process.

Green Supply Chain Management – Corporate Initiatives in the area of green supply chain – Case Studies from Indian and Global supply chain companies

5.PEDAGOGY

The supply chain management subject covers material movement, warehousing and inventory planning. Case studies must be used in all modules. Industry visit to Warehouses will give an insight to the material handling system. A mini project can be used for understanding procedures and documentation.

6.TEACHING/LEARNING RESOURCES ESSENTIAL READINGS

1. Coyle, Langley, Novack, and Gibson, “Supply Chain Management A Logistics Perspective”, Cengage Publications 9 Edition
2. Rajat K Baisya, “Integrated Supply Chain and Logistics Management” Sage Publications, New Delhi

Sunil chopra, Meindl & Kalra, “Supply Chain Management”, Pearsons Education, India, 2009

REFERENCES

1. Janet Shah, “Supply Chain Management Texts and Cases”, Pearsons Education
2. Edward G. Hinkelman, “International Trade Documentation the Documents of Exporting, Importing, Shipping and Banking”, World Trade Press
3. Langley, Coyle, Gibson, Novack, and Bardi “Managing Supply Chains – A Logistics Approach”, Cengage Publications
4. Shipping Documents and Reports, UNCTAD (<https://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=2563>)
- “INCO Terms 2020”, International Chamber of Commerce (<https://iccwbo.org/resources-for-business/incoterms-rules/incoterms-2020/>)
5. Lambert, D, “Strategic Logistic Management”, Tata McGraw Hill, New Delhi
6. Asopa, V.N Shipping Management Cases and Concepts, Macmillan, New Delhi
7. Satish K. Kapoor & Purva Kansal, “Basica of Distribution Management - A Logistical Approach”, Prentice Hall India, 2003
8. Michael Hugos “Essentials of Supply Chain Management”, Wiley Fourth Edition
9. Nada R Sanders “Supply Chain Management – A Global Perspective”, Wiley Second Edition
10. John Mangan, Chandra Lalwani, “Global Logistics and Supply Chain Management, Wiley Third Edition

4.6.3. TOTAL QUALITY MANAGEMENT

1.GENERAL INFORMATION

No.of Credits 4

No.of Hours Per Week 4

2.COURSE PERSPECTIVES

The primary aim of training students in TQM is to give them in-depth knowledge of quality and quality control and TQM and prepare students to use and application of quality assurance tools. Give them in depth Knowledge of the management aspects of Total quality management development which prepare students to create satisfied customers which is essence of any business today .

3.COURSE OBJECTIVES AND OUTCOME

OBJECTIVEZ

To Develop Ability in students to apply the tools, techniques and principles of Total Quality Management

To create an understanding which enable the students to Appreciate and adopt the application of quality management principles in the development of organizations

OUT COMES

The students should realize the importance of significance of quality and be able to manage quality improvement teams in organization

The students should develop the Ability to apply the concepts of **total quality management** for investigation and synchronization of manufacturing processes service processes.

4.COURSE CONTENT AND STRUCTURE

MODULE1: INTRODUCTION TO TOTAL QUALITY MANAGEMENT 8 HOURS

Introduction to Quality and Quality Control TQM, TQM framework, benefits, awareness and obstacles. Customer Focus – customer perception of quality, Translating needs into requirements, customer retention. Dimensions of product , service quality and Cost of quality.

MODULE2: PRINCIPLES OF QUALITY MANAGEMENT 8 HOURS

Overview of the contributions of Deming, Juran Crosby, Masaaki Imai, Feigenbaum, Ishikawa, Taguchi techniques – introduction of loss function, parameter and tolerance design, signal to noise ratio. Japanese 5S of house keeping, and 8D methodology.

MODULE 3 : PROCESS CONTROL AND CAPABILITY 12 HOURS

Meaning and significance of statistical process control (SPC) – construction of control charts for variables and attributed. - problems

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 (TPM) – relevance to TQM, Terotechnology. Business process re-engineering (BPR) – principles, applications, reengineering process.

MODULE 4: TQM TOOLS AND TECHNIQUES 12 HOURS

Quality functions development (QFD) , Voice of customer, information organization, House of quality (HOQ), building a HOQ, QFD process. Failure mode effect analysis (FMEA) –Quality tools,Bench marking and POKA YOKE.

MODULE5: QUALITY MANAGEMENT SYSTEMS 8 HOURS

Scope and application of ISO9000- 2000. Design and implementation of Quality Systems. Auditing requirements of ISO9000-2000. QS- 9000.

MODULE 6: BEHAVIOURAL ASPECT OF TOTAL QUALITY MANAGEMENT 8 HOURS

Quality circles , kaizen , vendor management quality audits. TQM culture, leadership – quality council, employee involvement, motivation, empowerment, recognition and reward- introduction to software quality.

5.PEDAGOGY

- The lectures should be supplemented by case studies in each module to which enhance students' analytical, problem solving and decision making skills.

6.TEACHING/LEARNING RESOURCES

1. Dale H.Besterfield et al, Total Quality Management, Third edition, Pearson Education
(First Indian Reprints 2002)
2. Shridhara Bhat K, Total Quality Management – Text and Cases, Himalaya Publishing House, First Edition 2017
3. S.D Bagde, Total Quality Management - Himalaya Publishing House, First Edition 2017
4. TQM A pictorial Guide for managers -John Oakland and Peter Morris 2011

| ELECTIVE SUBJECTS | |
|--------------------------|--|
| 4.7 | BUSINESS ANALYTICS 4.7.1. BIG DATA ANALYTICS 4.7.2. DATA VISUALIZATION AND BUSINESS REPORTING USING TABLEAU 4.7.3. EMERGING TECHNOLOGIES AND FUTURE SKILLS FOR BUSINESS LEADERS |

4.7.1. BIG DATA ANALYTICS

1.GENERAL INFORMATION

No.of Credits : 4

No. Hours Per Week : 4

2.COURSE PERSPECTIVES

This course will help students to take a data driven decision which are more effective and efficient than human generated decisions. Big Data Analytics allows to detect trends and spot patterns that can be used for future benefit. Big data analytics helps students harness data and use it to identify new opportunities.

This course will help students to learn the usage of Hadoop to store and process big data in more effective manner. Students will also get a practical exposure to Pig and Hive during the course which will help in their future career prospects.

3.COURSE OBJECTIVES AND OUTCOME

OBJECTIVES

1. To provide an overview of an exciting growing field of big data analytics.
2. To enable the students to use the tools required to manage and analyse big data like Hadoop, Pig, MapReduce.
3. To enable the students to use fundamental techniques and principles in achieving big data analytics (E Commerce, Social Media Analytics, Mobile analytics) with scalability and streaming capability.
4. To enable students to have skills that will help them to solve complex real-world problems in for decision support.

COURSE OUTCOMES

By successfully completing the course the students will be able to:

Develop Big Data Solutions using Hadoop Eco System , Store, Access and Process Big Data on Hadoop Distributed File System.Use Big Data for E-Commerce, Social media analytics and Mobile Analytics.Understand and Execute map reduce technique in processing of large data sets.

4.COURSE CONTENT AND STRUCTURE

MODULE 1:INTRODUCTION TO BIG DATA

10 Hours

Big Data – Characteristic, Evolution of big data, Four V’s of Big data, Big Data Applications and used cases, Big Data vs. Traditional Data, Challenges of Big Data, Structure of Big Data, Analytics tool- open source analytics tools.

MODULE 2:APPLICATIONS OF BIG DATA ANALYTICS

10 Hours

Introduction – Drivers for Big Data Analytics – Applications of Big data Analytics in: Marketing and Sales, Finance Analytics, Human Resource, Healthcare, Product Design, Service Design, Customer Service and Support, SCM, Government operations and functions, different industries and sectors, etc

MODULE 3: MAP REDUCE

6 Hours

Introduction, Meaning, Map Reduce Types and Formats - Mapper, Reducer, Combiner, Partitioner, searching, sorting and compression.

MODULE 4: HADOOP FRAMEWORK

12 Hours

Introduction to Hadoop, Why Hadoop, RDBMS versus Hadoop, history of Hadoop, Distributed computing challenges, Hadoop Components, Hadoop conceptual layer, Key aspects of Hadoop.

HDFS- special features and limitations.

MODULE 5:HADOOP ECOSYSTEM

12 Hours

Major components of Hadoop ecosystem:

Pig: Introduction to PIG, Anatomy of Pig, Pig philosophy, Data types in Pig, Relational operators, Applications and limitations of Pig.

Hive: Meaning of Hive, features, Architecture, Data types, Hive file format, Hive Query language (HQL), User Defined Functions.

MODULE 6: E-commerce, Social Media and Mobile Analytics

6 Hours

Inter organizational- Global information systems; Electronic Data Interchange (EDI); E-Commerce Overview, E-commerce applications and used cases, Mobile Commerce, E-Governance; Grid computing, Mobile Computing, Mobile Analytics – Applications and used cases, advantages & disadvantages; Social media analytics – Applications and used cases

5.PEDAGOGY

- Lectures,- Use Case studies
- Practical Exercises - Individual & Group
- Demonstrations using Hadoop, Hive and Pig
- Talk by the industry experts and industry visits
- Live projects and assignments

6.TEACHING /LEARNING RESOURCES

ESSENTIAL READINGS

1. Seema Acharya, Subhashini Chellappan, "Big Data and Analytics", Wiley, 2nd Edition.
2. Reza Zafarani, Mohammad Ali Abbasi, Huan Liu, "Social Media Mining", Cambridge University Press, 2014.
3. GuandongXu, Yanchun Zhang and Lin Li, "Web Mining and Social Networking Techniques and applications", Springer, 2011.

REFERENCES

- 1.Zikopoulos, P., Parasuraman, K., Deutsch, T., Giles, J., & Corrigan, D.V Harness the Power of Big Data The IBM Big Data Platform. McGraw Hill Professional, 2012
- 2.Prajapati, V, "Big Data Analytics with R and Hadoop", Packt Publishing Ltd, 2013
3. Gates, A. Programming Pig." O'Reilly Media, Inc.", 2011.
4. Capriolo, E., Wampler, D., & Rutherglen, J., "Programming Hive", O'Reilly Media, Inc.",2012
5. David Loshin, "Big Data Analytics: From Strategic Planning to Enterprise Integration with Tools, Techniques, NoSQL, and Graph", 2013.
6. Jay Liebowitz, "Big Data and Business Analytics" Auerbach Publications, CRC press (2013
7. Jeffrey D. Camm, James J. Cochran, Michael J. Fry, Jeffrey W. Ohlmann, David R. Anderson, "Essentials of Business Analytics", Cengage Learning, second Edition, 2016

4.7.2. DATA VISUALIZATION AND BUSINESS REPORTING USING TABLEAU

1.GENERAL INFORMATION

No.of.Credits : 4

No.of Hours Per Week : 4

2.COURSE PERSPECTIVE

This course will help students to learn one of most user-friendly and straight forward visualization tool Tableau. Tableau is considered to be the market leader when it comes to Data Visualization. It allows users for the production of interactive data visualization in a very effective manner at fast speed. Complicated charts and graphs can be easily created in Tableau Software.

3.COURSE OBJECTIVES AND OUTCOMES

OBJECTIVES

1. To enable the students to be able to understand and describe the main concepts of data visualization.
2. To enable the students with best practices of data visualization and how to apply them to solve analytics problems
3. To enable them to Create ad-hoc reports, data visualizations, and dashboards in Tableau
4. To enable them to be able to apply business analytics using tableau that support the decision making in business operations

OUTCOMES

By successfully completing the course the students will be able to:

Understand and describe the main concepts of data visualization

Understand the best practices of data visualization and how to apply them to solve analytics problems.

Create ad-hoc reports, data visualizations, and dashboards in Tableau

Apply business analytics using tableau that support the decision making in business operations

4.COURSE CONTENT AND STRUCTURE

MODULE1:INTRODUCTION AND GETTING STARTED WITH TABLEAU

10 HOURS

The Advantages of a modern Analytics platform, Types of Tableau, The Tableau application suite, Installing Tableau Desktop, Data Preparation, the sample dataset, The Tableau workspace, working with measures and dimensions, Working with marks, Saving, Opening and sharing workbooks

MODULE 2 : CONNECTING TO DATA

10 HOURS

Setting up a data connector, selecting data tables, Data cleaning and formatting, Joins and Unions, data extracts and Live Connections, Editing the model's Meta data, Data Types, Adding hierarchies, Calculated Fields and table calculations and Data Collection, Checklist for increasing performance.

MODULE 3: BUILDING FIRST VISUALIZATION USING VARIOUS FEATURES OF TABLEAU

10 HOURS

Chart types, Ready, Set, Show Me, Bar charts, Legends, Sorting, Totals, Sub Totals, Data Spotighting, Sets, Groups, Bins Filters And Hierarchies Line Charts, Highlight Tables, Heat Maps, Sankey charts, Bullet Charts, Cumulative sums with waterfall charts, Market Basket Analysis and Pareto Analysis

MODULE 4: ANALYSIS USING TABLEAU

10 HOURS

Aggregate functions, aggregate in calculated fields, Text operators, Date fields, Logical functions in calculated fields Parameters, Searching text fields.

Symbol maps, Filled maps, Density maps, Map Layers, Maps with Pie charts Viz in Tooltip, Overview of the Tableau analytics Pane, Constant, Average, and reference lines, Trend lines, Forecasts, Cluster Analysis and R.

MODULE 5: CREATING DASHBOARDS

8 HOURS

Creating a new dashboard, the dashboard Pane, Placing charts on the Dashboard, Dashboard titles, Navigation buttons, Dashboard actions, Dashboard Best Practices and Inspiration.

MODULE 6: CONTEMPORARY DEVELOPMENTS IN VISUALIZATION AND BUSINESS REPORTING

8 HOURS

Introduction to other visualizations tools: Fusion charts, Highcharts, Datawrapper, and Power BI, etc. Creating story point, reporting in video format, Marketing reporting, Finance reporting, HR reporting, Supply chain reporting, Production and Operations reporting.

Data Visualization and Business Reporting using Tableau – Laboratory

PART - A

1. Importing data set into Tableau, Data Cleaning and Tooltip option
2. Demonstration of types of joins and unions
3. Demonstration of Normal Distribution
4. Demonstration of Calculated Fields and Table calculations
5. Demonstration of Ratios and Blending of Data sources
6. Demonstration of Logical functions and Aggregate functions
7. Demonstration of Reference lines Forecasting and Trend lines
8. Demonstration of Heat Maps, Sankey charts
9. Demonstration of sorting, filtering and types of charts
10. Demonstration of Market Basket Analysis and Pareto analysis
11. Creating Dashboards in Tableau
12. Designing and engaging stories in Tableau

PART - B

1. Demonstration of Sales and Marketing Analytics
2. Demonstration of Human Resource Analytics
3. Demonstration of Financial Analytics
4. Demonstration of Supply Chain Analytics
5. Demonstration of Production and Operations Analytics

Examples of Data sets: Purchase of office supplies, Bank Customers, Health and Hospitals Corporation (HHC) facilities, US Cities Population, Finance entities, online purchase, Airline revenue, Election result, PC, iPhone sales, Data for a Superstore, Financial data, Supply chain data, Human Resource data , Production and Operations data for any business firm.

Note :

- For all the above Exercises Students can use their own datasets and Use Cases
- For all Exercises taking final print of the output and Writing Interpretation is compulsory in the Lab Journal
- In the practical Examination student are expected to execute and write Interpretation for one or more exercises from Part A out of 12 exercises using Tableau.
- In the practical Examination student are expected to execute and write Interpretation for one or more exercise from Part B out of 5 exercises using Tableau.
- Change of exercise is not permitted in the Practical Examination.

PEDAGOGY

- Hands-On Demonstration using Tableau
- Lectures and discussions
- Group Assignments and presentations
- Use cases
- Talk by the industry experts and industrial visits
- Assignment and Projects

SCHEME OF EXAMINATION - LABORATORY

The components of Laboratory 70 Marks are as follows:

| Details | Marks |
|---|-------|
| Execution of the program and drawing insights from any one exercise from Part A | 20 |
| Execution of the program and drawing insights from any one exercise from Part B | 20 |
| Viva Voice | 10 |

| | |
|--------------|-----------|
| Lab Journal | 20 |
| Total | 70 |

EXAMINER PROFILE

A person should be proficient in Tableau and should have some experience in analytics using Tableau. BOE Chairperson will have discretion of selecting examiners.

TEACHING/LEARNING RESOURCES

1. Ryan Sleeper ,Practical Tableau: 100 Tips, Tutorials, and Strategies from a Tableau Zen Master 1st Edition, OREILLY publication
 2. Daniel G. Murray, Tableau Your Data!: Fast and Easy Visual Analysis with Tableau Software 2nd Edition, WILEY publication
 3. Joshua N. Milligan, Learning Tableau: Tools for Business Intelligence, data prep, and visual analytics, 3rd Edition, Packt publication
 4. Jane A Crofts, Tableau Desktop: A Practical Guide for Business Users [Print Replica] Kindle Edition
 5. Alexander Loth ,Visual Analytics with Tableau 1st Edition, Kindle Edition
 6. Learning Tableau by Joshua Milligan.
 7. Tableau Your Data!: Fast and Easy Visual Analysis with Tableau Software by Daniel G. Murray.
 8. Communicating Data with Tableau by Ben Jones.
 9. Tableau Dashboard Cookbook by Jennifer Jane Stirrup.
- *****

4.7.3.EMERGING TECHNOLOGIES AND FUTURE SKILLS FOR BUSINESS LEADERS

1.GENERAL INFORMATION

No. Of.Credits : 4

No. Of Hours Per Week : 4

2.COURSE PERSPECTIVE

This course is designed to impart the combination of skills, technologies, applications and processes used by organizations to gain data-driven insights. Today technology is involved in nearly all the conveniences we enjoy. Automation has radically changed the way personal and business affairs are conducted. This course will enable students to have better understanding of these emerging technologies which they will be learning in this course to enable organisation to perform better.

3.COURSE OBJECTIVES

OBJECTIVES

1. To enable students to be able to understand new emerging technologies and their potential for business functions.
2. To enable students to be able to understand the application of Artificial Intelligence, Machine Learning, Deep learning, IOT, Robotics, Block chain and cryptocurrency.
3. To enable students to be able to apply the data privacy tools and understand the cyber security.

OUTCOMES

By successfully completing the course the students will be able to:

- Develop the new emerging technologies and their potential for business functions.
- Understand the application of Artificial Intelligence, Machine learning and Deep Learning.
- Understand the application of Cloud computing, IoT and 3 D Printing, Robotics, Blockchain, Cryptocurrency
- Apply data privacy tools and understand cyber security.

4.COURSE CONTENT AND STRUCTURE

MODULE 1: ARTIFICIAL INTELLIGENCE (AI), MACHINE LEARNING (ML) AND DEEP LEARNING

12 HOURS

Introduction, Concept of Data Science, AI and ML; Problem Spaces and Search Knowledge and Rationality; AI vs Machine Learning; Machine Learning - Types, Process and Applications; Introduction to Deep Learning / Neural Networks, Natural Language Processing; Modeling Concepts and Applications and Use Cases in Finance, Marketing, Human Resource, Health Care, Productions and Supply Chain Management.

MODULE 2: CLOUD COMPUTING

8 HOURS

Introduction to Cloud Computing, Components of a Computing Cloud, Differentiating Types of Clouds: Public, Private, Hybrid, Delivering Services from the Cloud, Evaluating Barriers to Cloud Computing and Technical Considerations

MODULE 3: INTERNET OF THINGS (IOT) AND 3D PRINTING

8 HOURS

Introduction to IoT; Introduction to IoT, Software Analysis and Tooling, Network, Linking & Loading, IoT Data and the Cloud.

3D Printing (Additive Manufacturing) - Introduction, Process, Classification, Advantages, Additive V/s Conventional Manufacturing processes, Applications and used cases.

MODULE 4: AUTOMATION USING ROBOTICS

8 HOURS

Introduction to Robotics; Types and Components of a Robot, Classification of Robots, Robot Control Systems, Industrial Robot Applications, Robot Accuracy and Repeatability, Different Types of Robotics and Various Generations of Robots.

MODULE 5: BLOCK CHAIN AND CRYPTO CURRENCIES

12 HOURS

Blockchain: Introduction, Blockchain Basics and the Role of Money, Blockchain Philosophy and Cryptonomics, Applications and Exchanges, Blockchain towards a Decentralized Society.

Cryptocurrency: Introduction to Cryptocurrencies, Legal Aspects of Virtual Currency, Applications of Cryptocurrencies and Blockchains in Traditional Finance.

MODULE 6: CYBER SECURITY AND DATA PRIVACY

08 HOURS

Introduction to Cyber Security; Threats and Vulnerabilities; Cyber Security Breaches; Penetration Testing and Methodologies; Frameworks and Standards for Cyber Security; Cybersecurity practices; Privacy Meets Security – Data Protection; Privacy Policies and Security Claims Privacy Seal Programs.

5.PEDAGOGY

- Lectures

- Use Case studies

- Practical Exercises - Individual & Group
- Seminars and workshop on various technology
- Talk by the industry experts and industry visits
- Live projects and assignments

TEACHING/LEARNING RESOURCES

ESSENTIAL READINGS

1. Stuart Russell and Peter Norvig, “Artificial Intelligence: A Modern Approach”, 3rd Edition, Prentice Hall
2. Elaine Rich and Kevin Knight, “Artificial Intelligence”, Tata McGraw Hill
3. Vijay Madiseti, Arshdeep Bahga, Internet of Things, “A Hands on Approach”, University Press
4. Dr. SRN Reddy, Rachit Thukral and Manasi Mishra, “Introduction to Internet of Things: A practical Approach”, ETI Labs
5. Thomas Erl, Zaigham Mahood, Ricardo Puttini, “Cloud Computing, Concept, Technology & Architecture”, Prentice Hall, 2013.

REFERENCES

1. Trivedi, M.C., “A Classical Approach to Artificial Intelligence”, Khanna Publishing House, Delhi.
2. Saroj Kaushik, “Artificial Intelligence”, Cengage Learning India, 2011
3. Dr. SRN Reddy, Rachit Thukral and Manasi Mishra, “Introduction to Internet of Things: A practical Approach”, ETI Labs
4. Pethuru Raj and Anupama C. Raman, “The Internet of Things: Enabling Technologies, Platforms, and Use Cases”, CRC Press
5. Jyh-Shing Roger Jang, Chuen-Tsai Sun, Eiji Mizutani, “Neuro-Fuzzy and Soft Computing”, Prentice-Hall of India, 2002.
6. <http://nifm.ac.in/business-analytics-and-statistics>
7. https://cloud.gov.in/services_da.php
8. <https://dst.gov.in/data-science-research-initiative>
9. Journal of Business Analytics – Taylor & Francis Online Journal
