

MBA

Syllabus 2018-19

Course Structure for MBA Semester -I

Subject Code	Subject Title	Examination	Marks		Total	Credits	No. of Sessions		Total 1 session @ 1 clock hours each	
			External	Internal			L	A		
C101	Organizational Behavior & Principles And Practices of Management	External	60	40	100	4	30	20	50	
C102	Management Accounting	External	60	40	100	4	30	20	50	
C103	Managerial Economics	External	60	40	100	4	30	20	50	
C104	International Business Management	External	60	40	100	4	30	20	50	
C105	Business Law	External	60	40	100	4	30	20	50	
C106	Operation Management	External	60	40	100	4	30	20	50	
C107	Statistics & Quantitative Techniques	External	60	40	100	4	30	20	50	
C108	Optional Papers	External			50	2	30		30	
i)	Introduction to Marketing	Student can choose any one of these optional papers								
ii)	Introduction to Finance									
iii)	Introduction to HR									
iv)	Introduction to Pharmaceutical Business Environment									
v)	Introduction to Life Sciences and Biotechnology and Introduction to Bioinformatics									
vi)	IT its Core Concepts and Issues									
vii)	Geo Political Environment									
viii)	Healthcare Management									
ix)	Introduction to Operations & Supply Chain Management									
x)	Foundations of Analytics									
C109	Internal subjects	Internal								
i)	Business Computing				50	2	30			
ii)	Business Communication				50	2	30			
Total					850	34				

Semester -II

Subject Code	Subject Title	Examination	Marks		Total	Credits	No. of Sessions		Total 1 session @ 1 clock hours each	
			External	Internal			L	A		
C201	Financial Management	External	60	40	100	4	30	20	50	
C202	Entrepreneurship Development & Project Management	External	60	40	100	4	30	20	50	
C203	Marketing Management	External	60	40	100	4	30	20	50	
C204	Logistics & Supply Chain Management	External	60	40	100	4	30	20	50	
C205	Management Control System	External	60	40	100	4	30	20	50	
C206	Human Resource Management	External	60	40	100	4	30	20	50	
C207	Research Methodology for Managers	External	60	40	100	4	30	20	50	
C208	Optional Papers	External			50	2	30		30	
i)	Customer Relationship Management	Student can choose any one of these optional papers								
ii)	Personnel Administration & Documentation.									
iii)	Investment Banking									
iv)	Pharmaceutical Management									
v)	Application and Methodology of Biotechnology									
vi)	IT in Business Management									
vii)	Export & Import Management									
viii)	Hospital Administrations									
ix)	Production & Operations Management									
x)	Introduction to Business Analytics									
C209	Internal subjects	Internal							50	
i)	Excel-1				50	2	30			
ii)	Industry Study-Sect oral Analysis				50	2	30			
	Total				850	34				

Semester -III

Subject Code	Subject Title	Examination	Marks		Total	Credits	No. of Sessions		Total 1 session @ 1 clock hours each
			External	Internal			L	A	
C301	Business Policy & Strategic Management	External	60	40	100	4	30	20	50
C302	Elective - I, Paper - 1	External	60	40	100	4	30	20	50
C303	Elective - I, Paper - 2	External	60	40	100	4	30	20	50
C304	Elective - I, Paper - 3	External	60	40	100	4	30	20	50
C305	Elective - II, Paper - 1	External	60	40	100	4	30	20	50
C306	Elective - II, Paper - 2	External	60	40	100	4	30	20	50
C307	Elective - II, Paper - 3	External	60	40	100	4	30	20	50
C308	Internal Subjects	External							
i)	Project Viva for SIP				100	4(2+2)			
ii)	Personality Development Lab & Training for Facing Interview				50	2			30
	Total				850	34			

Semester -IV

Subject Code	Subject Title	Examination	Marks		Total	Credits	No. of Sessions		Total 1 session @ 1 clock hours each
			External	Internal			L	A	
C401	Business Ethics & Corporate Governance & Social Responsibility	External	60	40	100	4	30	20	50
C402	Elective - I, Paper - 4	External	60	40	100	4	30	20	50
C403	Elective - I, Paper - 5	External	60	40	100	4	30	20	50
C404	Elective - I, Paper - 6	External	60	40	100	4	30	20	50
C405	Elective - II, Paper - 4	External	60	40	100	4	30	20	50
C406	Elective - II, Paper - 5	External	60	40	100	4	30	20	50
C407	Elective - II, Paper - 6	External	60	40	100	4	30	20	50
	Total				700	28			

Electives (Student can choose any one Elective along with Marketing Management as compulsory elective)

Note : In the final degree certificate both electives would be mentioned (as dual specialization)

SEMESTER I

SYLLABUS MBA I SEM

COURSE CODE & TITLE: C101- ORGANIZATIONAL BEHAVIOR & PRINCIPLES AND PRACTICES OF MANAGEMENT

I. Course Description:

Every organization's performance is ultimately dependent on the motivational levels of its human resources and the willingness and ability of people to work harmoniously and effectively towards the accomplishment of shared goals. Principles and Practices of Management help us in understanding the role and functions of a manager, who coordinates and oversees Human resource so that organizational goals can be accomplished in an effective and efficient manner.

II. Objectives:

1. Understanding the concepts of organizational behavior and its application in managing people.
2. Exploring the relationships among the various components of organizational behavior

III. Course Outline:

Unit – I: Introduction to Organizational Behavior & Perception Process

Definition, Concept and Importance, Different models of OB - autocratic, custodial, supportive, collegial and SOBC, Models of OB, Nature & Importance, Perceptual Selectivity, Perceptual Organization, Social Perception, Impression Management. Perception: Nature & Importance, Perceptual Selectivity, Perceptual Organization, Social Perception, Impression Management

Unit–II: Personality, Attitude, Motivation, Group Dynamics, Teams, Conflict Management

Meaning of personality, Development of personality, Nature and dimensions of attitude, The Stage approach (Freud, Erikson, Levinson, and Halls Models), Theories of Attitude, Job Satisfaction, and Organizational Commitment. Motivation: Definition, Concepts and Characteristics, Morale - Definition and relationship with productivity, Morale Indicators, Theories of Work Motivation.

Theories of Group Formation, Formal and Informal Groups, Importance of teams, Formation of teams, Team Work, Conflict Management-Traditional vis-à-vis Modern view of conflict, Constructive and Destructive conflict, Conflict Process, Levels of Conflict, Strategies for Conflict resolution.

Unit – III: Stress management, Change management

Concept of stress, Sources of Stress, Effect of stress, Work life balance, Concept of Change, Forces Responsible for Change, Resistance to change, Change process, Lewin's Change model, Force Field Analysis, Concept of learning organizations.

Unit – IV: Basic concepts of management, Planning, Organizing & Staffing.

Definitions of management, Evolution of Management thoughts, Contribution of F.W Taylor, Henri Fayol and Contingency Approach , Role & Skills, Levels of Management, Concepts of PODSCORB,

I) Functions of Management : Planning: The nature and purpose of planning, Setting objectives, Management by objectives, Strategies, policies and planning premises, Decision making.

II) Organizing: Organizing: Concepts, Structure (Formal & Informal, Line & Staff and Matrix), Meaning, Advantages and Limitations, Departmentation: Meaning, Basis and Significance ,Span of Control: Meaning, Factors affecting span of Control, Centralization vs Decentralization. Managerial Skills for effectiveness

III) Staffing - Concept, Nature, Importance, Steps. Concept of knowledge worker.

Unit – V: Directing, Controlling & Leadership, Decision Making:

Directing- - Concept, Nature, Importance, Process of controlling. , Control Techniques

Leadership: Concept, Nature and Importance, Attributes of a leader, developing leaders across the organization, Leadership Grid.

Decision making: Concept, Nature, Importance, and Process, Types of decisions, Problems in decision making.

Prescribed books:

1. Harold Koontz and Heinz Wehrich, Essentials of Management, Tata McGraw-Hill, 6th Edition
2. Stephen P. Robbins, Organizational Behavior, Prentice Hall of India, 9th Edition,

Suggested readings:

1. Jit S.Chand, Organisational Behavior, Vikas Publishing House Pvt. Ltd.
2. Saxena., Principles and Practice of Management

COURSE CODE & TITLE : C 102 – MANAGEMENT ACCOUNTING

I. Course Description

Managerial Accounting deals with the framework of accounting and presents alternative methods of preparing managerial accounting information. It discusses the scope of accounting function and its emerging role in modern business. The course emphasizes the construction of the basic financial accounting statements - the income statement, balance sheet, and cash flow statement - as well as their interpretation. Managerial accounting is a company's internal language, and is used for decision-making.

II. Course Objectives:

1. To understand the various branches of accounting and their importance in today's business.
2. To familiarize with the process of determination of different types of costs
3. To explain how the costing technique are useful in the process of managerial decision-making .

III. Course Outline:

Unit I: Introduction to Accounting

Definition of Accounting, Scope of Accounting, Significance of Accounting, Basic Accounting

Terminologies, Accounting concepts and conventions, Accounting Equation, Financial A/c Vs Management Accounting, Cost Accounting Vs Management Accounting

Unit II: Accounting Cycle

Classification of Accounts, Journal, Ledger, Trial Balance and Final Accounts. Users of accounting information, Limitations of Financial Accounting, Final Accounts of sole trader.

Unit III: Corporate Reporting

Preparation of Balance Sheet as per Schedule III of the Companies Act, Cash flow statement, Presentation & analysis of Audit reports & Director's reports, Chairman's report

Unit IV: Introduction to Cost Accounting

Basics: Meaning of Cost, Cost Accounting, Cost classification, Special Cost for management decision making. Elements of cost, preparation of cost sheet, Types of cost, cost classification, cost sheet.

Material: Direct & Indirect, pricing of issues (FIFO & LIFO methods), EOQ,

Unit V: Decision Making Techniques

Marginal costing: Meaning, BEP, margin of safety, P/V ratio

Standard costing: Meaning, variance analysis, material & labor variances.

Budgetary Control: Meaning, process, functional & flexible budgets.

Books Recommended:

1. Paresh Shah: Basic Financial Accounting For Management, Oxford University Press.
2. Ramachandran, N. & Kakani, R.K. Financial Accounting for Management, Tata McGraw Hill.
3. Bhattacharya, S.K, Accounting for Management : Text and Cases, Vikas Publishing House, New Delhi
4. Bhattacharya, H., -How to Read a Balance Sheet: Adapted to Indian laws & requirements| Oxford and IBH Publishing Company Pvt.

COURSE CODE & TITLE: C 103 – MANAGERIAL ECONOMICS

I. Course Description: Managerial economics is a science that deals with the application of various economic theories, principles, concepts and techniques to business management in order to solve business and management problems. It deals with the practical application of economic theory and methodology to decision-making problems faced by private, public and non-profit making organizations.

II. Objectives

1. To integrate economic theory with business practice and to apply economic concepts and principles to solve business problems.
2. To understand the allocation of the scarce resources in the optimal manner and also to minimize risk and uncertainty

3. To understand the tools for demand forecasting and profit planning which gives answers to the basic problems of business management.

III. Course outline:

Unit – I: Nature and scope of Managerial Economics: Definition, nature and scope of Managerial Economics, Managerial Economics and Micro-economics, Managerial Economics and Macro-economics, Applications of Economics in Managerial decisions making. **Fundamental Economic Concepts:** Positive & normative approach, Optimization, Marginal analysis, Opportunity Cost, Economic Model, Static & Dynamics.

Unit – II: Demand Analysis & Supply: Determinants of Market Demand, Law of Demand, Elasticity of Demand, Measurement and its use, Demand Forecasting. **Supply:** Supply Analysis Law of Supply, Determinants of market supply. **Production Function & Cost Theory:** Meaning of Production Function, Costs and Cost Functions, Short Terms Costs and their use on decision making, Determinants of costs, Break Even Analysis

Unit-III: Pricing and Market structures: Pricing decisions under different market forms like perfect competition, monopoly, oligopoly, Pricing Methods - Pricing in Public Sector Undertakings and Cooperative Societies, Profit Concept, Theories of Profit.

Unit-IV: Government and Business: Need for Government intervention in the market, Price Controls - Support Prices and Administered Prices, Prevention and control of monopoly, Protection of consumers' interest, Economic Liberalization, Process of disinvestments- Need and methods, Policy planning as a guide to overall business development.

Unit-V: National Income Accounting: Inflation, Money & Banking, Indian economy policy

Prescribed books:

1. Mote, Paul and Gupta, Managerial Economics, Tata McGraw-Hill, First Edition
2. Warren E. Buffett, Fundamentals of Managerial Economics,

Suggested readings:

1. R L Varshney and K L Maheswari, Managerial Economics, Sultan Chand & Sons, New Delhi, Eighteenth Edition,
2. Reckie and Crooke, Managerial Economics, Prentice Hall; fourth Edition.
3. Samuelson, Paul, Economics, Tata McGraw-Hill, Eighteenth Edition,

COURSE CODE & TITLE: C 104- INTERNATIONAL BUSINESS MANAGEMENT

I. Course Description: The most conspicuous aspect of international boundaries is crossing the national boundaries. Firms seek international market opportunities more today than ever before, touching the lives of billions of people around the world. Knowledge about international business, therefore, assumes great relevance for the upcoming Global managers.

II. Objectives:

1. Understand the scope and challenges for a company to enter into the international market along with the theories of International Trade.
2. Understand the Country risk analysis process before making a decision to enter an international

market and market entry strategies.

I. Course outline:

Unit – I: Definition and Scope of International Business: Why companies do International Business, Forces of Globalization, International Trade Theories, Domestic Business Vs International Business. **Country Risk Analysis:** Political Risk Analysis, Economic Risk Analysis, Socio-Cultural Risk Analysis, Legal Environment.

Unit – II: Balance of Trade and Balance of Payment: Trade Barrier, Tariff Barriers & Non Tariff Barriers

Unit – III: Regional Trade Agreements: Bio lateral Trade Agreements & Multi lateral Trade Agreements

Unit – IV: Foreign Market Entry Strategies: International Pricing decisions & International Commercial Terms (INCO) Terms

Unit V: International Monetary System: Foreign exchange rates, International Monetary fund (IMF), International Bank for Reconstruction and Development (IBRD)

Prescribed books:

1. International Business –By K Ashwathappa, TATA McGraw-Hill publication, Third edition

Suggested readings:

1. International Business–Competing in the Global Marketplace by Charles W Hill and Arun K Jain, TATA McGraw-Hill publication, Sixth edition

2. International Business –Strategy, Management And The New Realities By S.Tamer Cavusgil, Gary Knight and John R. Reisenberger, Pearson Publications, First Edition.

COURSE CODE & TITLE : C 105 – BUSINESS LAW

I. Course Description:

The aim of this course is to instill a keen understanding and appreciation of the legal aspects of business. This course will provide an understanding of legal methodology and the main principles of law relating to business transactions. The course will also demonstrate how commercial law and business practice inter relate and often influence each other in shaping modern communication and industry. In particular, key legal topics will be explained and illustrated from business perspective.

II. Objectives:

1. Understand and appreciate the relevance of business law to individuals and businesses.
2. To make the students familiar with the concept of law & various laws relating to business.

III. Course outline:

Unit I: Introduction to Business laws: Objectives of the stud, Importance of these Laws to the future Managers (Students) to be effective global business leaders.

The Contract Act, 1872: Nature and classification of contracts - Essential elements of a valid contract. Offer and Acceptance - Consideration - Valid Consideration - Capacities of Parties

Provisions relating to free consent, valid agreements, Provisions (relating to performance and discharge of contract, Breach of contract - Meaning and remedies, Contingent Contracts, Quasi-contracts, Wagering Agreements, Contracts of Indemnity - Meaning, nature - Right of Indemnity Holder and Indemnifier, Contracts of Guarantee - Meaning, Nature and Features - Types of Guarantee - Provisions relating to various types of Guarantee ,Surety and Co-surety - Rights and Liabilities - Discharge of surety from his liability, Agency: Agent and Principal, Creation of Agency, Ratification of Agency, Classification of Agent, Relationship between Principal, Agent and Sub-agent, Agent's authority, Revocation and Renunciation, Rights, Duties and Liabilities of Agent and Principal, Termination of Agency

Unit II: Sales of Goods Act, 1930: Contract for Sale of Goods, Meaning, Sale of Goods and Agreement to Sell, Essentials of a Contract of Sale, Formalities of a Contract of sale, Sale and Hire Agreements, Provisions relating to conditions and Warranties, Provisions relating to transfer of property or ownership, Provisions relating to performance of Contract of Sale - Rights of Unpaid Seller – Remedial measures, Provisions relating to Auction Sale

Unit III: The Negotiable Instruments Act, 1881: Negotiable Instruments, Meaning, Characteristics, Types, Parties, Holder and holder in Due Course, Negotiation and Types of Endorsements, Dishonor of Negotiable Instrument - Noting and Protest

Unit IV: The Consumer Protection Act, 1986 :Definitions of Consumer, Person, Goods, Service, Trader, Manufacturer - Meaning of Consumer, Dispute, Complaint - Unfair Trade Practices - Restrictive Trade Practice, Consumer Protection Councils, Consumer Disputes Redressal Agencies

The Information Technology Act, 2000:

Digital Signature, Electronic Governance, Electronic Records, Certifying Authorities. Legal & Business environment (Micro & Macro)

Unit V: Companies Act, 1956

Introduction to Company, Its Registration &Types, Lifting the Corporate Veil, Memorandum of Association, Doctrine of Ultravires & Indoor Management, Articles of Association, Prospectus, Shares, Shareholders, Members & Share Capital, Directors: Appointment, Qualification, Power, Duties Removal Meetings, Winding up, its Types & Procedure.

Prescribed books:

- 1.Business Laws - S.S.Gulshan EXCEL BOOKS
- 2.An Introduction to Mercantile Laws - N.D.Kapoor

Suggested readings:

In addition to above books, students are advised to refer to the monthly journals like Chartered Accountant, Chartered Secretary and All India Reporter for latest case laws.

COURSE CODE & TITLE : C106 -OPERATION MANAGEMENT

I. Course Description:

Operations Management (OM) is concerned with the management of resources and activities that produce and deliver goods and services for customers. The course focuses on the basic concepts, issues, and techniques for efficient and effective operations.

II. **Objectives:**

1. To understand the strategic role of operations management in creating and enhancing a firm's competitive advantages.
2. To understand key concepts and issues of OM in both manufacturing and service organizations.
3. Apply analytical skills and problem-solving tools to the analysis of the operations problems.

III. **Course outline:**

Unit I: Introduction to Operations Management - Nature, Scope, Importance and Functions, Evolution from manufacturing to operations management-Evolution of the factory system, manufacturing systems, quality, mass customization. Contribution of Henry Ford, Deming, Cross by, Taguchi.

Unit II: Types of Industries – Variety of Businesses – Integration of Manufacturing & Services, Scale of Operations. Methods of Manufacturing, Project/Jobbing, Batch Production, Flow/Continuous Production, Process Production, Characteristics of each method. Facilities Location & Layout – Strategic importance - Factors affecting location & layout - Installation of facilities – Single location, multi-location decisions. Principles and Types of Facilities Layout.

Unit III: Importance and Functions of Production Planning & Control. Introduction to PERT / CPM - Network Crashing (Numericals expected for PERT/CPM). Maintenance Management - Importance and types of maintenance – Maintenance Planning - Spare Parts Management – Concept of TPM.

Unit IV: Inspection - Cent percent Inspection, Sample Inspection, Operation Characteristics Curves, Statistical Quality Control – Construction & Interpretation of Control Charts – (X-R, n, p, c, np) Introduction to Six Sigma, (Numericals expected for Control Charts). Gap analysis for service quality assessment.

Unit V. Productivity - Work Study - Objectives, Scope and Uses - Methods Study – Flow process chart, Flow diagram & Process mapping - Work Measurement - Elements - Performance Rating - Allowances - Standard Time - Synthetic Time Standards – Work Sampling (Numericals expected for Standard Time), Lean Production Systems – TOYOTA system – JIT - KANBAN - Theory of Constraints.

Prescribed Books:

1. Production & Operations Management – Chary
2. Manufacturing & Operations Management - L.C.Jhamb

Suggested Readings:

1. Operations Management - Krajewski
2. Operations Management - Mahadevan
3. Production & Operations Management - Chase

COURSE CODE & TITLE : C 107- STATISTICS & QUANTITATIVE TECHNIQUES

I. Course Description: The basic knowledge of the Statistical and Quantitative Techniques is must for every management student and professional. The increased scale of business operations and growing competition has made the job of a management professional more challenging than ever before. SQT is an important knowledge that student should have for handling these competitive business situations.

II. Objectives:

1. To strengthen a fundamental understandings of basic statistics.
2. To provide a formal quantitative approach to problem solving.
3. To develop skills in solving managerial problems using some widely used mathematical models.

III. Course outline:

Unit – I: Introduction to Statistics: Statistics in Business Management, Statistical Terms & Concepts – Data, variable, Population, Sample, Random sample. Arranging data to convey meaning – Tables, Graphs and frequency Distribution - Measures of central Tendency & dispersion - Simple and Multiple Regression and Correlation - Association of Attributes

Unit – II: Probability: Probability Distribution, Binomial Distribution, Poisson distribution. Normal Distribution.

Unit – III: Linear Programming: Formulation and Graphical solution to two variables assignment problem, Transportation problem.

Unit – IV: Management Theories: Queuing Theory- Single server and Multi Server, Games Theory- 2 X 2 zero sum game with dominance – Pure Strategy and Mixed Strategy
Decision Theory- 5 criteria of Decision-making. Markov Chain with simulation techniques- Monte Carlo simulation

Unit – V: Usage of MS-excel in statistics: Introduction to statistical packages - SPSS/SISSTAT/MATLAB

Books Recommended

1. Richard I. Levin and David S. Rubin, Statistics for Management, 7th edition, Prentice Hall of India Pvt. Ltd., New Delhi.
2. David M. Levine, Timothy C. Krehbiel and Mark L. Berenson –Business Statistics: A First Course, Pearson Education Asia, 2nd edition, New Delhi, 2000.
3. Hooda, R.P., Statistics for Business and Economics, Macmillan India Ltd., 2nd edition.
4. David F. Groebner, Patrick W. Shannon, Phillip C. Fry and Kent D. Smith, –Business Statistics: A Decision making approach, 5th edition, Prentice Hall, 2001.
5. Chandan. J. S., Statistics for Business and Economics, Vikas Publishing House Pvt. Ltd.,

OPTIONAL PAPERS:

COURSE CODE & TITLE: C 108 (I) – INTRODUCTION TO MARKETING

I. Course Description: Marketing Management is designed to serve as an introduction to the theory and practice of marketing. Students will improve their ability to develop effective marketing strategies and assess market opportunities, as well as design strategy implementation programs. In addition, students will have the opportunity to communicate and defend their recommendations and build upon the recommendations of their peers.

II. Objectives:

1. Appreciate the holistic role of marketing in a firm
2. Distinguish between the specific nature of different markets, goods and services
3. Understand the theories and practices behind the marketing mix variables

III. Course outline:

Unit I: Marketing: Meaning, significance, core concepts, needs, wants, demand - market- its meaning and classification, Marketing management – meaning and functions, marketing organization and types.

Unit II: Marketing Mix- Concepts and Components, Products Meaning, Characteristics, Classification. Pricing – Meaning, Objectives and Methods of pricing distribution system, meaning and types of channels of distribution. Promotion, meaning and elements of promotion mix, Definition of each of 4 P’s-significance.

Unit III: Product – Meaning, Goods & Services, Product Mix, Levels of Product, Product Life Cycle - Managing the product in Product Life Cycle.

Unit IV: Price: Meaning, Importance, Pricing objectives, Factors influencing pricing decision - Approaches to pricing – Price & Non-price competition, Setting the price and managing the price changes.

Unit V: Place: Importance, functions of distribution channels, Introduction to the various channels of distribution, designing marketing channels, Introduction to Wholesaling, Retailing, Franchising, Direct Marketing, and Impact of technology & Internet on distribution.

Promotion: Concept and role in marketing, Promotional Mix, Advertising, Sales Promotion, Personal Selling, Public Relations. Impact of technology & Internet on Promotion

Prescribed books:

1. Keller Kevin Lane, Kotler Philip, Marketing Management, Pearson Education, 13th Edition, 2009
2. V S Ramaswamy, S. Namakumari, Marketing Management, Macmillan, 4th Edition, 2009

COURSE CODE & TITLE: C 108 (II) – INTRODUCTION TO FINANCE

I. Course Description:

Introduction to Finance deals with the framework of finance. It discusses the scope of finance function and its emerging role in modern business.

II. Objectives:

1. To understand the overview of finance function and their importance in today's business.
2. To understand the significance of financial statements and the management techniques.
3. To understand the importance of working capital.

III. Course Outline:

UNIT I: Overview of Finance Function, Nature & Scope of Finance Function, Objectives of Finance Functions – Significance of Finance Functions, Agency cost Theory – Role of modern Finance Manager

UNIT II: Financial System - Meaning and significance of Financial Market – Financial and financial system – Constituents of Financial system (Brief overview) Basic understanding of Capital Market & Money Market

UNIT III: Financial Analysis – Understanding Financial statements & statutory framework **under** Company's Act Schedule I – A requirements - Annual Report of company common size financial statement and common base year financial statement. Ratio analysis: Meaning – significance – Calculating different ratios

UNIT IV: Working Capital Management - Concept – need and determinants of working capital. Concept of working capital cycle – Estimation & control on working capital

Books Recommended:

1. IM Pandey, -Financial Management, Vikas Publishing, Ninth Edition
2. Prasanna Chandra, -Financial Management, Tata McGraw-Hill, Sixth Edition
3. James C Vanhorne – Financial Management and Policy – Pearson Education Asia, 12th edition
4. M.Y. Khan & P.K. Jain. —Financial Management, Tata McGraw-Hill, Fourth Edition 2
5. A. P. Rao, -Financial Management, Everest Publishing, Pune

COURSE CODE & TITLE : 108 (III) – INTRODUCTION TO HUMAN RESOURCE MANAGEMENT

I. Course Description: The management of Human Resource is a very complicated and challenging task for those who are entrusted with successful running of an organization and this implies considerable knowledge of various aspects of –Personnel Management.

The discipline of human resource management has gained importance since professionalization of management is now regarded as a ‘_must’ for the successful running of any business.

II. Objectives:

1. To get acquainted with the basics of human resource management like functions, genesis and growth, scope and philosophy, etc.
2. To learn the techniques and methods through which humans are injected in an organization, trained, appraised and compensated.
3. Understanding human psychology their needs and expectations and how employers provide them with the amenities.

III. Course outline:

Unit-I: Introduction to HR: Definition, Importance & Evolution, and difference between Personnel Management & Strategic HRM

Unit-II: Human Resource Planning: Need, Importance and Process, Job Analysis, Job Specification & Job description, Manpower audit, Recruitment & Selection

Unit-III: Employee Training & Appraisal: Importance & Need for training, Training methods and evaluation, Performance appraisal-Need, Importance & Methods.

Unit-IV: Wage and salary administration: Job evaluation, Compensation management-Nature and purpose, Rewards & Incentives.

Unit-V: Industrial Relations & Disputes: Definition of Industrial relations & Objectives, Industrial disputes- Introduction & Settlement of disputes

Prescribed Books:

1. Personnel Management: Text and Cases By C.B. Mamoria & S.V.Gankar, Himalaya Publishing House

Suggested Readings:

1. Human Resource Management: Text and Cases By K. Ashwathappa, TATA McGraw Hill
2. Human Resource Management By Biswajeet Pattanayak, Prentice Hall of India

C108 IV: INTRODUCTION TO PHARMACEUTICAL BUSINESS ENVIRONMENT

I. Course Description: This course enables students to learn about the channel of pharmaceutical marketing, Pharmaceutical Business Environment and its effect of promotional strategies, and physician's prescriptions.

II. Objectives:

1. It enables students to learn about the channel of pharmaceutical marketing, Pharmaceutical Business Environment.
2. It enables students to learn Pharmaceutical Business Environments` effect of promotional strategies, and physician's prescriptions.

III. Course Contents:

Unit I: Introduction to Pharmaceutical Management: Identification of pharmaceutical market; market behaviour; physician prescribing habits; patient motivation; market analysis.

Unit II: Environmental Scanning of Pharmaceutical Business Environment: Micro & Macro Analysis, PESTLE Analysis of Pharmaceutical Business Environment

Unit III: The Pharmaceutical Products: Drug Development and the Marketing Research Interface; Diversification and Specialisation; Marketing Generic Drugs; Non-prescription drugs.

Unit IV: Distribution Channels: Manufacturer; Wholesaler; Retailer; Hospital and Government Agencies.

Unit V: Competitive Practices: Economic and Competitive Aspects of the Pharmaceutical Industry; Advertising; Detailing and other forms of Promotion; Retail Competition – The Community Level; International Marketing.

Unit VI: Controls: Internal & External Controls

Books Recommended

1. Sachin Itkar, Pharmaceutical Management, Nirali Prakashan, 2nd Edition
2. Subba Rao, Pharmaceutical Marketing in India
3. Pharmaceutical Selling – Muka Bodya
4. Tora Tora, Principles of Anatomy & Pharmacology, John Wiley & son, 11th Edition
5. Satoskar, Pharmacology (Pharmaceutical), Popular Prakashan, 9th Edition

C108V: INTRODUCTION TO LIFE SCIENCES, BIOTECHNOLOGY AND BIOINFORMATICS

I. Course Description: This course is designed to learn the basic concepts in Biotechnology and Bioinformatics. The objective of the course is to familiarize the students with the tools and techniques in Biotechnology and Bioinformatics. They would also understand the importance of analytical tools in biotechnology & its applications in various industries. At the end of the course, the students will have sufficient scientific understanding of the basic concepts in instrumentation used in Biotechnology.

II. Course Objectives:

1. To introduce students with basic concepts of Life sciences.
2. To familiarize the students with basic concept in Biotechnology and advanced research area
3. To familiarize the students with the tools and techniques in Biotechnology and Bioinformatics.

III. Course Outline:

Unit I: Introduction to Life Sciences: Cell Biology, Biochemical composition and the ultra structure of the cell. Cell -Cell interaction, structure and function of cell organelles.

Unit II: Introduction to Microbiology: Morphology and fine structure of bacteria. Control of Microorganisms, Viruses, Microbial organisms and diseases.

Unit III: Introduction to Biochemistry: Structure, Classification and Properties of Carbohydrates, Lipids, Proteins and Nucleic acids.

Unit IV: Introduction to biotechnology, history of biotechnology, facts of modern biotechnology, scope and importance of Biotechnology.

Unit V: Tools and techniques in Biotechnology: Analytical techniques and Molecular Techniques

Unit VI: Biotechnology and Biodiversity, Applications of Biotechnology in India, Business opportunities in biotechnology, Future of biotechnology in India.

Unit VII: Introduction to Bioinformatics - What is bioinformatics, databank, data capture, data analysis, databases, Databases - Different biological databases and their applications. Applications of Bioinformatics - Bioinformatics industry in India.

Books Recommended:

1. B. D. Singh, Biotechnology, Kalyni Publishers, 1st Edition.
2. Kumar H. D., Textbook of Biotechnology, East-West Press
3. Attwood T. K., D. J. Parry-Smith, Introduction to bioinformatics, Pearson Education
4. Rastogi, Bioinformatics: Methods and Applications, Prentice Hall India, 2nd Edition
5. David Mount, Bioinformatics: Sequence and Genome analysis
6. Stephen and David, Introduction to Bioinformatics: A theoretical and practical approach

C 108 VI: IT ITS CORE CONCEPTS & ISSUES

I. Course Description: This course is designed to be an introductory course in information technology. The course focuses on key concepts for understanding modern computer systems. Students will also learn about the capabilities and limitations of information technology systems.

II. Course Objectives:

1. Understand the fundamentals of information technology

2. Learn core concepts of computing and modern systems
3. Understand modern software programs and packages
4. Learn about upcoming IT technologies

III. Course Outline:

Unit I: Introduction to Information Technology: Course overview -Information Systems-Software vs. Hardware-Past, present, and future of Application Software -GUIs-Word Processors and Spreadsheets-KillerApp

Unit II: Microsoft Office: Microsoft Office PowerPoint, Numeral Systems and Graphics-Decimal, Binary, and Hexadecimal-Computer Graphics-3D Graphics-Virtual Reality-Image file types

Unit III: Internet and World Wide Web-Internet –definition and history-Client / Server-Web Browsers-Web , Web Publishing-HTML and CSS-Tags, Links, Images, Fonts, Colors-WYSIWYG HTML Editor

Unit IV: Networks: Network Hardware-Protocols-Hardware-Computer vs. Components-Key computer components

Unit V: Operating Systems: Functions of Operating Systems-Windows, Mac, and Linux

Unit VI: Secondary Storage: Hard Disks-Optical Media-Next Generation

Unit VII: Databases: Types of Databases-History of Databases-Database Management Systems, Security and Forensics-Privacy-Hackers-Computer Crimes-Computer Forensics

Unit VIII: Programming and ERP Systems: Software Design Cycle-Programming Languages- Enterprise Resource Planning (ERP) Systems- Social Media-Major Types of Websites-Wikis-Social Networking-Marketing

Books Recommended:

1. Management Information System: Jawadekar
2. Management Information System: Laudon & Laudon
3. The Essential Guide to Knowledge management: Amrit Tiwana
4. The GIS Book: George B. Karte.
5. Internet (Use of Search Engines Google & yahoo etc)
6. E – Commerce: Milind Oka
7. E – Commerce: C.V.S. Murty
8. Fire Wall and Internet Security: William Cheswick, Stevens, Aviel Rubin
9. E-Governance Case Studies – Ashok Agarwal

COURSE CODE: 108 VII: GEOPOLITICAL ENVIRONMENT

I. Course Description: To select and use appropriate methodological approaches in geopolitical and geostrategic analyses, and make critical considerations in political analyses. Evaluate international spheres of interest and contemporary geopolitical distributions, as well as geo-strategies in the regions and worldwide. Assess modern political threats in the international environment.

II. Course Objectives: To study the dynamics of world economy from the geographical perspective.
(a) To examine the linkages between spatial organisations functional interest and global realities.
(b) To analyze contemporary world problem and issues with the help of geopolitical models.

III. Course Structure:

Unit I: Political geography and geopolitics: Modern political geography and geopolitics; geopolitics and geo-strategy in the science system; role of territories in politics; notion and distribution of space; geo-strategy and geostrategic views;

Unit II: Methodological Approaches in Political Geography: (a) Functional Approach (b) Unified Field Theory (c) The Genetic Functional Approach

Unit III: Development of political geography and geopolitical image of the world: Evolution of World Economy, critical geopolitics; formal geopolitics, structural and practical; state borders and criteria for defining borders, distributions and natural factors.

Unit IV: Management of Resources : (a) Resource Distribution and Disparities (b) Economic Groupings and Geopolitics (i) Political Grouping (ii) Regional Groupings (c) Politics of World Trade and trade treaties

Unit V: Geopolitics of the 21st century: EU borders according to their level of stability; BRIC countries (Brazil, Russia, India, and China); rapid development of Brazil, Russia, India, and China (BRIC) countries and possible changes of economic and political relationships worldwide

Prescribed Books:

1. J.R.V. Presscott, Political Geography: Field of Political Geography (1972).
2. P. K. Taylor, Political Geography (London: Longman, 1985)
3. Dickenson I. P., The Political Geography of Underdevelopment (Routledge, Kegan Paul, 1982)
4. Jagdish Bhagwati, (ed.) Economics and World Order From 1970-1999, (New York),
5. Dikshit R. D., Political Geography: The Discipline and its Dimensions (New Delhi : Tata MacGraw Hil, 1994).
6. Majid Husain, (ed) Resource Geography (New Delhi : Amol, 1994)

C108 VIII: HEALTHCARE & HOSPITAL MANAGEMENT

I. Course Description: The Masters in Hospital Administration is aimed towards orienting and developing students for executive positions in hospitals. The course develops the managerial skills of individuals and also exposes them to clinical aspects of hospital management. The students have the option of developing their skill set in a particular area of hospital management while taking the optional modules.

II. Course Objectives:

1. Students should be able to analyse and assess various situations in the hospital
2. Students should be able to plan and organize developmental policies and implement strategies

- Students should be able to participate in management decisions and convert them into action plans

II. Course Outline:

Unit I: Introduction to Health care management with three tier Health care delivery

Unit II: National Health programmes overview

Unit III: Role of Government agencies in implementing Health Care to population

Unit IV: International Health Organizations

Unit V: National Health Policy

Unit VI: Planning & Organisation of Hospitals

Unit VII: Management in O.P.D /ICU/Operation Theatre/materials & logistics

Unit VIII: Supportive Hospital Services (Laundry, Kitchen, Diet, Fire Safety, Ambulatory Service, Security)

Books Recommended

- S.L. Goal, Hospital Administration & Management, Prentice Hall India
- Darr Kurt, Hospital Organization & Management
- Frinch C.B., Host Planning & Management
- Goal S.L, Management of Hospital.
- Gupta P.D., Useful reading for Hospital Management
- Prof Satoskar, Hospital Mgt, Pragti Books.

C108 IX: INTRODUCTION TO OPERATIONS & SUPPLY CHAIN MANAGEMENT

I. Course Description: This course introduces the viewer to the basics of Operations and Supply Chain Management. The concepts in Operations Management are restricted to the planning and operational decisions within an organization while the supply chain concepts are for a network of organizations. The main emphasis of the course is on the basic concepts and on quantitative modeling of the various decision problems.

II. Course Objectives:

- To Specify and implement a framework for identifying a business problem.
- To develop alternative solutions and a set of evaluation criteria.
- To assess the outcomes of a course of action and make appropriate adjustments.

III. Course Outline:

Unit I: Introduction to Operations Management: Nature, Scope, Importance and Functions - Evolution from manufacturing to operations management - Evolution of the factory system - manufacturing systems –quality – mass customization. Contribution of Henry Ford, Deming, Crosby, Taguchi.

Unit II: Forecasting: Introduction, The Strategic Importance of Forecasting, Benefits, Cost implications and Decision making using forecasting, Classification of Forecasting Process, Methods of Forecasting, Forecasting and Product Life Cycle, Selection of the Forecasting Method, Qualitative Methods of Forecasting, Quantitative Methods, Associative Models of Forecasting, Accuracy of Forecasting

Unit III: Operations Scheduling: Introduction, Purpose of Operations Scheduling, Factors Considered while Scheduling, Scheduling Activity under PPC, Scheduling Strategies, Scheduling Guidelines, Approaches to Scheduling, Scheduling Methodology [Quantitative], Scheduling in Services.

Unit IV: Supply Chain Management : Introduction, Domain Applications, SCM– The Breakthrough Article, Supply Chain Management, Views on Supply Chain, Bullwhip Effect in SCM, Collaborative Supply Chain, Inventory Management in Supply Chain, Financial Supply Chain – A New Revolution within the SCM Fold.

Unit V: Just-In-Time : Introduction, Characteristics of JIT, Key Processes to Eliminate Waste, Implementation of JIT, Pre-requisites for implementation, JIT Inventory and Supply Chains

Books Recommended

1. Operations Management by Evans and Collier.
2. Operations Management by Heizer and Render.
3. Supply Chain Management by Janat Shah.
4. Supply Chain Management by Chopra and Meindl.

C108 X: FOUNDATIONS OF ANALYTICS

I. Course Description:

The goal of this course is to provide students with the mathematical and practical background required in the field of data analytics.

II. Objectives:

1. To provide a supportive, hands-on environment for students to gain mathematical and practical experience with R Tools.
2. To introduce a probability and statistics, the R tool is introduced for statistical computing and graphics.
3. To become familiar with the processes needed to develop, report, and analyze business data.

III. Course Outline:

Unit I: Introduction: Meaning of business analytics and some main levers used by the firms use to capture value through it.

Unit II: Predicting outcomes: introduction of lending analytics, a common tool to leverage the data for prediction purposes: logistic regression, possible offering by big data and the possibilities for mass customization of services, various methods which are alternatives to regression or logistic regression.

Unit III: Quality of Predictions : Healthcare Analytics , assess the quality of predictions and quantify the errors while predicting outcomes, notion of ROC curves, account of errors when making economic trade-offs, task of predicting re-admissions of patients in hospitals, and the implications for preventive treatment measures.

Unit IV: Financial analytics: in-sample and out-of-sample predictions assessment of quality of

predictions, concept of the design of trading strategies

Unit V: Testing / retail analytics: prescriptive analytics module, the evaluation of the quality of decisions and the optimization, Difference in Differences- a tool to test the quality of changes in decisions in complex environments in the absence of perfect experiments, evaluation of a major new initiative at a retail chain and through the evaluation of the ROI of online advertising campaigns, Analytics for decision making

Prescribed books:

1. Kerns, G. J. (2010). Introduction to probability and statistics using R. Publisher: G. Jay Kerns.
2. Verzani, J. (2014). Using R for introductory statistics - 2nd Edition. New York: Chapman & Hall.

INTERNAL SUBJECTS

COURSE CODE & TITLE: C109 (I) COMPUTER APPLICATION FOR BUSINESS

I: Course Description: Introduction to Business Computing is one the important tools to make the students aware of the computer and the routine job done in offices with help of Microsoft Word, Access and PowerPoint tools which helps a student to become more presentable and efficient in working in Business.

II: Objectives:

1. To get students acquainted with the basic knowledge about computers and its tools.
2. To make the students aware about the basics of word, access and Excel which are the most important tools used in offices for routine work.

III: Course Outline:

UNIT I: Introduction to Computers - Hardware - Software - Systems Software, Application Software and Packages - Introduction to Embedded Software.

UNIT2: Commonly used Software Packages like Microsoft Word, Microsoft Excel, Microsoft Power Point, Microsoft Access, Tally etc.

UNIT3: Introduction to World Wide Web - Internet operations - Introduction to Electronic Commerce and Electronic Business.

Books Recommended:

1. Fundamentals of Computers: Prof Raja ram
2. Ghosh Dastidar, Chattopadhyay and Sarkar, " Computers and Computation - A Beginner's Guide ", Prentice Hall of India

COURSE CODE & TITLE: C109 (II) BUSINESS COMMUNICATION

I. Course Description: Communication plays a vital role in business organizations. Business organizations function in a close knit and highly collaborated environment with the help of the threads of communication network. Efficient communication networks prevent possible failure situations and events by feeding the data and information forward and help in making a business proposal a reality.

II. Objectives:

1. Understand the concepts and acquire necessary communication skills that would help in shaping personalities.
2. Understand communication tactics and help acquire abilities to deal with the global business and life situations appropriately.
3. Help in adapting good communication skills that fosters oneself to anticipate problems, make decisions, co-ordinate work flow and develop relationships.

III. Course Outline:

Unit I: Communication: Meaning and definition, Nature of Business Communication, Objectives and Importance of Business Communication, Limitations of Business Communication, Communication Process, Classification of Business Communication, Principles - 6 C's of Communication.

Unit II: Forms of Communication and Listening Skill: Verbal and Non-Verbal Communication, Merits and Demerits of Oral, Written & Non Verbal Communication, Difference between Listening and Hearing, Listening and Reading ,Principles, Barriers, and Advantages of Listening, Types of Listeners, How to be a good Listener.

Unit III: Presentation Skills and Meeting Managements: Profile of a Good Speaker, Features of good presentation, Points to remember while delivering your presentation – stages of effective presentation, The use of visual aids to support your presentation. What makes meetings wasteful? How to reduce wastage? When to call meetings? Meeting Etiquettes, Notice, Agenda & Minutes of a Meeting.

Unit IV: Written Communication: Format of Business Letters, Fully Blocked, Semi-Blocked - Open Punctuation, Letters of application and resume writing, Letters of Resignation, Enquiry and Reply, Complaint and Adjustment or Apology, Formal E-mails, Report writing

Unit V: Interviews: Types of Interviews, Interview Techniques, Frequently asked Questions at Interviews, Mock Interviews.

Unit VI: Effective Communication: Importance & Barriers to Effective Communications, Communication Skills, Influencing Techniques

Unit VII: Cross Cultural Communication: The Cross Cultural Dimensions of Business Communication, techniques of electing response, probing questions, Observation, Business Etiquettes

Prescribed Books:

1. Rao P. Subba, Kumar B. Anita & Bindu C. Hima, Business Communication, Cengage Learning, 2012.

Books Recommended:

1. Rajendra Paul & Korlahalli, Essential of Business Communication, Sultan Chand, 10th edition, 2004
2. Lesikar, R.V. & Flatley, M.E. (2005). Basic Business Communication Skills for Empowering the Internet Generation. Tata McGraw Hill Publishing Company Ltd. New Delhi

COURSE CODE & TITLE : CI : DISASTER MANAGEMENT

I. Course Description:

This course is being introduced to enable students and citizens to recognize the increasing vulnerability of the planet in general and India in particular to disasters. This, it is expected would create a basis to work towards preparedness and also help develop a culture of safety and prevention. The course elaborates on both natural and man made disaster and how to mitigate in the wake of accidents. Under each category, the causes and impact along with illustration would be discussed in detail.

II .Objectives:

1. To understand the various types of disaster.
2. To understand about risk and vulnerability
3. To learn how to mitigate disaster

I. Course Outline:

Unit I: Understanding Natural Disasters

Understanding Natural Disasters, Understanding Disaster Management, Flood, Drought, Cyclone, Earthquakes, Landslides, Avalanches, Volcanic Eruptions, Heat and Cold Waves, Climate Change: Global Warming, Sea Level Rise, Ozone Depletion.

Unit II: Understanding Man-Made Disasters

Understanding Man-Made Disasters, Nuclear Disasters, Chemical Disasters, Biological Disasters, Building Fire, Coal Fire, Forest Fire, Oil Fire, Air Pollution, Water Pollution, Deforestation, Industrial Pollution, Road Accidents, Rail Accidents, Air Accidents, Sea Accidents.

Unit III: Risk Assessment and Vulnerability Analysis

Hazard, Risk and Vulnerability, Understanding Risk: Concept and Elements, Risk Reduction, Risk Analysis Techniques, Participatory Risk Assessment, Vulnerability Analysis and Risk Assessment, Observation and Perception of Vulnerability, Strategies for Survival, Strategic Developments for Vulnerability Reduction.

Unit IV: Disaster Preparedness

Disaster Management: Prevention, Preparedness, and Mitigation, Disaster Preparedness: Concept and Nature, Disaster Preparedness Plan, Disaster Preparedness by various authorities, Information Technology:

Book Recommended:

1. Bryant Edwards (2005): Natural Hazards, Cambridge University Press, U.K.
2. Carter, W. Nick, 1991: Disaster Management, Asian Development Bank, Manila.
3. Sahni, Pardeep et.al. (eds.) 2012, Disaster Mitigation Experiences and Reflections, Prentice Hall of India, New Delhi.

SEMESTER II

SYLLABUS : SEMESTER II

COURSE CODE & TITLE : C 201 – FINANCIAL MANAGEMENT

I. Course Description:

Financial management explores the core finance principles and theories and relates them to the practical world with the help of several pedagogical tools that help manage an organization's money. It practices create organizational value by allocating scarce resources among various business opportunities. It helps in the execution and supervision of organizational business policies. The importance of sound financial management practices cannot be stressed more in an ever-changing global economy.

II. Objectives:

1. Understand how finance is optimally managed in a corporate entity.
2. To understand the process of wealth maximization of shareholders
3. To learn the technique of capital budgeting

III. Course Outline

Unit I: Introduction to Financial Management: Overview of Financial Management, Financial Decisions, Profit Maximisation Vs Wealth Maximisation, Finance Functions, , Agency Problem, Relationship of Finance with other Disciplines, Role of Modern Finance Manager, Indian Finance system & Financial Market

Unit II: Financial Analysis and Planning: Analysis of Financial Statements: Financial ratios, Uses and Problems of Financial Statement Analysis, Standardized Financial Statements, Application of Financial Analysis, Uses and Problems of Financial Statement Analysis. Financial Planning and Forecasting: Introduction to Finance Planning and Forecasting, Financial Reporting statement & analysis, corporate Finance

Unit III: Valuation Concept & Investment Decision: Valuation Concept: Time Value of Money & Risk and Return, Capital Budgeting: Introduction, Features, Process, Techniques of Evaluation of Capital Budgeting Decision Cost of Capital: Introduction, Cost of Debt, Cost of Equity, Cost of Preference Capital, WACC.

Unit IV: Capital Structure & Financing Decision:

Capital Structure and Firm Value: Introduction, Assumptions for Analysis, Net Income Approach, Net Operating Income Approach, Traditional Approach, Modigliani and Miller (MM) Approach. Designing Capital Structure: EBIT-EPS Analysis, ROI-ROE Analysis, Leverage Analysis, Ratios and Industry norms for Capital Structure. Sources of Finance: Equity Capital, Preference Capital, Term Loans, Debentures & Internal Accruals, Short Term Sources of Finance. Raising Long-term Finance: Venture Capital, IPO, Secondary Public Offer, Right Issue and Private Placement.

Unit V: Working Capital Management:

Working Capital Management: Introduction, Meaning, Scope, Factors influencing Working Capital Requirements, Operating Cycle and Cash Cycle, Estimation of Working Capital Requirements. Inventory Management: Meaning, Motives for Holding Inventory, Deciding Optimal Level of

Inventory. Receivables Management: Meaning and Importance of Accounts Receivables, Impact of Credit Policy. Cash Management: Meaning, Motives for Holding Cash, Collections and Disbursements Management.

Book Recommended:

Prasanna Chandra, -Financial Management, Tata McGraw-Hill

Suggested Readings:

1. IM Pandey, -Financial Management, Vikas Publishing, Ninth Edition
2. Sixth Edition MY Khan & PK Jain, -Financial Management, Tata McGraw-Hill, Fourth Edition
3. A.P Rao, -Financial Management, Everest Publishing, Pune
4. Sheeba Kapil, -Financial Management, Pearson

COURSE TITLE: C 202 ENTREPRENEURSHIP DEVELOPMENT & PROJECT MANAGEMENT

I. Course Description: Entrepreneurship education plays a very vital role in creating awareness of enterprise and self-employment as a career option for students. Using this framework, students will have experiences that will enable them to develop the insight needed to discover and create entrepreneurial opportunities; and the expertise to successfully start and manage their own businesses to take advantage of these opportunities.

II. Objectives:

1. Creating awareness of enterprise and self-employment as a career option for students
2. Developing positive attitudes towards innovation, enterprise and self-employment
3. To instill a spirit of Entrepreneurship among the student participants.

III. Course outline:

Unit I: Entrepreneur and Entrepreneurship: The Entrepreneur: Definitions and Concept Entrepreneurial Traits, Characteristics and Skills, Entrepreneur Vs Professional Managers, Successful Entrepreneurs, Women Entrepreneurs

Unit II: Entrepreneurship Development: Entrepreneurship Environment, Entrepreneurship Development Program and Training, Problems of Entrepreneurship, Growth of Entrepreneurs, Entrepreneurial Failures.

Unit III: Role of Government and Financial institutions

DIC-District Industries Centre

SISI-Small Industries Service Institute

EDII-Entrepreneurship Development Institute of India

NIESBUD-National Institute for Entrepreneurship and Small Business Development

NEBD- National entrepreneurship Board of Development

Unit IV: Doing Business in India: Introduction, Major Issues and Challenges, Ethical approach, Types of Organization, Legal Compliances.

Unit V: Project Management: Project: Concept and Classification. Search for a Business Idea. Making a Business Plan, Marketing plan, Successful Projects of Social Entrepreneurs.

Prescribed Textbook:

The Dynamics of Entrepreneurial Development and Management by Desai Vasant, Himalaya Publishing house, Delhi, Fifth Edition, 2014.

Reference Books:

1. P.Saravanavel, Entrepreneurship Development, Himalaya Publishing.
2. Vasant Desai, Problems and Prospects of Small Scale Industries in India, Himalaya Publishing.
3. Peter F. Drucker, Innovation and Entrepreneurship, East-West press.
4. Hisrich, Entrepreneurship, Tata McGraw Hill, 6th Edition
P.C.Jain (ed.), Handbook for New Entrepreneurs, EDII, Oxford University Press, New Delhi

COURSE CODE &TITLE : C 203 - MARKETING MANAGEMENT

I. Course Description:

Marketing is a value-enhancing function that identifies opportunities, develops markets, and builds brands. Consequently, good marketing enables companies to charge price premiums, sustain competitive advantage and maintain long-run profitability. To this end, the course covers the following topics: understanding consumer and corporate behavior, conducting customer and competitor analysis, developing new products, branding and brand extension, pricing, designing distribution channels, and managing marketing-mix activities. First, you will be exposed to the fundamental concepts of marketing and thus learn the -language of marketing (i.e., talk-the talk).

II. Objectives:

1. Understanding marketing concepts and their application to profit-oriented and non-profit oriented organizations.
2. Applying these concepts to the analysis of marketing problems and development of appropriate and creative marketing strategies to solve these problems.

III. Course outline:

Unit-I: Marketing for the 21st Century

- The Importance of Marketing
- The Scope of Marketing
- What Is Marketing? What Is Marketed? Who Markets? 7
- The New Marketing Realities
- Major Societal Forces New Company Capabilities Marketing in Practice

Unit-II: Analyzing Consumers Markets

- What Influences Consumer Behavior? Cultural Factors Social Factors

- Key Psychological Processes
- Motivation: Freud, Maslow, Herzberg, Perception ,Learning ,Emotions ,Memory
- The Buying Decision Process:
- Problem Recognition ,Evaluation of Alternatives ,Purchase Decision Post purchase Behavior
- Moderating Effects on Consumer Decision, Making Behavioral Decision
- What Is Organizational Buying? The Business Market versus the Consumer

Unit-III: Identifying Market Segments and Targets

- Bases for Segmenting Consumer Markets
- Geographic Segmentation ,Demographic Segmentation
- Bases for Segmenting Business Markets Market Targeting
- Effective Segmentation Criteria Evaluating and Selecting the Market Segments

Unit-IV: Analyzing the Macro environment

- Needs and Trends, Identifying the Major Forces, The Demographic Environment
- The Economic Environment the Sociocultural Environment The Natural Environment
- The Technological Environment
- Marketing Insight the Green Marketing Revolution the Political-Legal Environment

Unit-V: Developing Pricing Strategies and Programs Understanding Pricing 383

- A Changing Pricing Environment
- How Companies Price Consumer Psychology and Pricing
- Setting the Price
- Managing Mass Communications: Advertising, Sales Promotions, Events and Experiences, and Public Relations Developing and Managing an Advertising Program
- Setting the Objectives, Deciding on the Advertising Budget Developing the Advertising Campaign Sales Promotion Objectives Advertising versus Promotion Major Decisions

Unit VI: Concept and Process of Integrated Marketing Communications (IMC):

- Elements of IMC & Developing respective communication campaign: Advertising, Sales Promotion, Publicity , Personal Selling, Direct marketing and direct response methods, Event Management
- E-Commerce, Corporate Communication, Public Relations – Types of PR, Media relations
- Community relations, Industrial relations and Government relations

Suggested Readings

1. Marketing Management A South Asian Perspective, Kotler, Keller, Koshy & Jha, Prentice Hall/Pearson
2. Marketing Management , Rajan Saxena, TMH
3. Marketing Management , Arun Kumar, N Meenakshi, Vik as Publishing
4. Fundamentals of Marketing, Bruce Walker & Stanton, McGraw Hill
5. W.D. Perraut & E.J. Mc Carthy, Basic Marketing, TMH
6. Russel S. Winner, Marketing Management , Pearson
7. Marketing Management, Ramaswami & Namakumari,
8. Integrated Marketing Communications - Kenneth Clown& Donald Ba

COURSE CODE & TITLE: C-204: PROJECT MANAGEMENT

I. Course Description: This course is designed to acquaint the students with the planning process in business and familiarize them with the project management. The students will get knowledge of various network techniques used in project management.

II. Objectives:

1. To familiarize students with the function & techniques of project management.
2. To acquaint students with Project co-ordination, Project audit and Project Termination.

III Course Outline:

Unit I: Project Planning: Introduction, Meaning, Definition, Characteristic & objective period, Nature of Planning, Importance of planning, Advantages of planning, Steps in planning process, Methods of planning

Unit II: The Project Life-Cycle, Project Management Maturity, Project Selection and Criteria of Choice, Types of Project Selection Models, Project Portfolio Process, Project Proposals. Project Management and the Project Manager, Problems of Cultural Differences, Impact of Institutional Environments, Project Organization, The Project Team.

Unit III: Initial Project Coordination: The Nature of Negotiation, Partnering, Chartering and change, Conflict and the project life cycle. Estimating Project Budgets, Improving the Process of Cost Estimation

Unit IV: Network Techniques: PERT and CPM, Risk Analysis Using Simulation with Crystal Ball 2000. Critical Path Method- Crashing a Project, The Resource Allocation Problem Resource Loading, Resource Leveling, Constrained Resource Allocation The Planning-Monitoring-Controlling Cycle, Information Needs and the Reporting Process, Earned Value Analysis The Fundamental Purposes of Control, Three Types of Control Processes, Comments on the Design of Control Systems, Control as a Function of Management.

Unit V: Purposes of Evaluation- Goals of the System, The Project Audit, Construction and Use of the Audit Report, The Project Audit Life Cycle, some Essential of an Audit/Evolution, The Varieties of Project Termination, when to Terminate a Project, The Termination Process.

Books Recommended:

1. Prasanna Chandra , Project Planning, Analysis, Selection , Implementation and review.
2. Gopalkrishanan P & Ramamoorthy V.E. , Textbook of project management.
3. Kemer Harold , Project Management
4. Dennis Hock , Project Management Handbook.
5. Choudhary S., Project Management

COURSE CODE & TITLE : C205 – MANAGEMENT CONTROL SYSTEMS

I. Course Description:

This subject gives roughly equal emphasis to the techniques of Management Control Process, such as transfer pricing, budget preparation and management compensation; and the behavioral consideration involved in the use of these techniques, such as motivation, goal congruence and relative roles of superiors and subordinates.

II. Objectives:

1. To introduce the overall conceptual framework of MCS
2. To describe the environment in which management control takes place.

III. Course outline:

Unit I: Conceptual Framework of MCS

- Meaning of MCS & Significance of MCS
- Features of effective MCS, Design and Evaluation of MCS

Unit II: Organizational framework of MCS

- Organization structure & MCS ,Organization behavior & MCS
- Management style & MCS, Formal & Informal Control System
- Goal- Hierarchy, Conflict, Congruence, Types of Management Controls
- Cybernetic Paradigm & Control Process, Function of the Controller
- Strategic Choice and Management Control Systems, Strategic Planning (Long Range Planning)
- Framework for management performance & control

Unit III: Responsibility Centers

- Meaning of Responsibility Centre, Significance Of Responsibility Centre, Types

Unit IV: Tools and Techniques of MCS

- Transfer Pricing, ROI and ROA, EVA
- Budgetary Control, Capital Budgeting, Zero Base Budgeting, Balanced Score Card
- Auditing, Cost Management Techniques

Unit V: MCS in Service Sector

Books Recommended:

1. Robert N. Anthony & V. Govindarajan – Management Control Systems – Tata McGraw Hill – 10th edition,
2. Joseph A Maciariello & Calvin J-Kirby, Management Control System –Prentice Hall of India, Second Edition
3. Ramanathan Kavassari, Management Control in Non-profit organization, John Wiley & Sons, New York
4. N. Ghosh, Management Control System, Prentice Hall of India, Second Edition

COURSE CODE & TITLE : C206 HUMAN RESOURCE MANAGEMENT

I. Course Description: Of all the resources available to human endeavor, it is perhaps ironically

the _human resource‘which most often presents the greatest perplexities to managers. Just as some business leaders might argue that it is the organization’s most important resource, others may assert that it is also its most nebulous. As organizations today continuously strive to keep abreast of their rapidly changing business environments they are coming to understand that human resource management (HRM) must assume an increasingly important role within their operations and planning.

II. Objectives:

1. Develop a clear and meaningful understanding of HRM theory, functions and practices.
2. Understand and defend the role and value of strategic human resource management in the success of modern organizations.
3. Apply human resource management concepts and skills across a variety of contexts, situations and incidents

III. Course Outline:

Unit – I: Perspective of HRM:

Concepts of HRM, Difference between PM & HRM, Changing Environment in the Marketplace Role and Competencies of HR, Ethical HRM, Strategic HRM

Unit – II: . Human Resources Planning

Definition, Need, Process of HRP, Demand Forecasting & Supply Forecasting, Job Analysis, Job Description & Job Specification, Concepts of Recruitment & Selection, Sources of Recruitment Difference between Recruitment & Selection, Selection Process, Induction & Socializing

Unit – III: Human Resource Development

Training and Development - Objectives and Needs-Training Process-Methods of Training –Tools and Aids-Evaluation of Training Programs., Career Management-career Planning and succession planning, . Performance Management System-Definition, Concepts, Different methods of Performance Appraisal- Rating Errors.

Unit – IV: Employee Relation & Employment Law

Introduction to employee relations, Origin and growth of Labor relations, Labor Laws, Trade Unions, Collective Bargaining, Grievance Handling.

Unit – V: Contemporary practices in HRM

Organizational Design IT in HR, TQM-Kaizen-Quality Circles.

Prescribed books:

Sharon Pandey & Basak- Human Resource Management, Pearson Education

Suggested readings:

1. Aswathappa, K. Human Resource to Personnel Management, Tata Mc Graw Hill
2. Mamoria C.B and Mamoria S., Personnel Management, Himalaya Publishing Company
3. Seema Sanghi, HRM, Vikas Publishing

COURSE CODE & TITLE : C-207 RESEARCH METHODOLOGY FOR MANAGERS

I. Course Description:

Research Methods gives essential guidance on how to carry out research projects and it introduces the core concepts, methods and values involved in doing research. This course provides a valuable learning through its comprehensive coverage of methods that are used by experienced researchers investigating the world of business. Researchers find it difficult to conduct an in-depth analysis in their areas of specialization without the sound knowledge of scientific process of conducting research. This course provides an opportunity to understand the crux of research methodology in a scientific and systematic manner.

II. Objectives:

1. To familiarize the student with the dimensions and methods of research.
2. To orient the student to make an informed choice from the large number of alternative methods and experimental designs available.
3. To enable the student to present a good research proposal.

III. Course outline:

Unit – I: Introduction to Research Methodology

Meaning of research: Purpose, Significance of research in Social and Business Science, and Ethics in Research, Defining research problem: Review of literature; Features of a good Research Design, Types of Research Design:

Unit – II: Research Design Formulation-Sampling and Data Collection

Sampling: Meaning, Characteristics of a good Sample, Sampling Methods, Probability and Non-probability Sampling, Steps in Sampling Design, Sampling Errors. Sources of Data: Primary and Secondary, Methods of collecting primary data: Survey and Observation

Unit – III: Measurement and Scaling

Scaling techniques: Scales of Measurement and Levels & Types of Measurement Scales
Drafting the questionnaire, Reliability and Validity. Criteria for good measurement

Unit – IV: Data Analysis- Hypothesis Testing:

Meaning and Purpose of Hypotheses Testing, Steps in Hypotheses Testing, Use of Statistical, Data Editing, Coding, Tabulation, Cross Tabulation, Concept of hypothesis, Procedure in Hypothesis Testing, Errors in Hypothesis testing, Types of Parametric and Non Parametric tests, Meaning of Correlation, Rank Correlation, Simple Linear Regression Analysis, Multiple Regression Analysis, Issues in Regression, Meaning of Regression Practical problems Chi-square test

Unit-V: Result Presentation and Report writing

Report Writing – Layout of a Research Paper, Types of Report, Critical elements of a Research Report Techniques of Interpretation, Steps in drafting reports.

Prescribed book: Bajpai, N. (2014). Business Research methods. Pearson Education, 5th Impression.

Suggested readings:

1. Sachdeva, J.K. (2010). Business Research Methodology. Himalaya Publishing House, 1st Edition.
2. Cooper, D.R. and Schindler P.S. (2006). Business Research Methods. Tata McGraw Hill, 9th Edition.

3. Malhotra, N. (2011). Marketing Research – An Applied Orientation. Pearson Education, 6th Edition.
4. Bryman, A. and Bell, E. (2011). Business Research Methods. Oxford, 3rd Edition.

C208: OPTIONAL PAPERS

COURSE CODE & TITLE : C208 (I)- CUSTOMER RELATIONSHIP MANAGEMENT

I. Course Description: Customer Relationship management (CRM) is a system for managing a company's interactions with current and future customers. It often involves using technology to organize, automate and synchronize sales, marketing, customer service, and technical support. CRM systems are customer relationship management platforms. The goal of the system is to track, record, store in databases, and then data mine the information in a way that increases customer relations

II. Objectives

1. Engage users' interest and participation.
2. Retain users; ensure they return to the site., Learn about customer preferences.
3. Relate back to users with customized interactions.

III. Course outline:

Unit – I: Introduction to CRM

What is a customer? What is consumer Behavior? Customer Life Cycle.
How do we define CRM? Customer Value: Concept and Characteristics. Customer Lifetime Value (CLTV), types of CRM

Unit – II: Introduction to eCRM

Introduction to eCRM, Technology Components of eCRM, difference between CRM & eCRM
eCRM Tools : Data mining and Data Warehousing.

Unit – III: Call Centers and its Technologies:

Call Centers: Concepts and Features, What is ACD (automatic call distribution),
IVR (interactive voice response), CTI (computer telephony integration)

Unit – IV: CRM and its Technologies

Sales Force Automation and its Technological aspect: data synchronization, flexibility & performance, reporting tools Definition & need of SFA, Barriers to successful SFA, SFA : functionality Enterprise Marketing automation (EMA) : components of EMA (promotions , events , loyalty & retention programs), marketing camping, camping, planning & management, business analytic tools Eight Building Blocks of CRM

Unit – V: Implementation Process of CRM:

Pre implementation, kick off meeting, requirements gathering, prototyping & detailed proposal generation, development of customization, Power User Beta Test & Data import, Training, roll out & system hand off, ongoing support. system optimization and follow up. who are ASP's?, their role & fuction, advantage & disadvantage of implementing ASP.

Recommended Books:

1. Customer Relationship Management –By Prof. Jagdish Sheth, Biztantra Publication.
2. CRM at the Speed of Light by Paul Greenberg, YMH 2nd edition.
3. CRM by V. Kumar, Werner J. Reinartz, Wilry India edition.
4. CRM by Kristin Anderson and Carol Kerr

COURSE CODE & TITLE: 208-II-PERSONNEL ADMINISTRATION AND DOCUMENTATION

I. Course Description: People are vital input for the effective functioning of an organization. For any organization to become successful it is necessary to recognize the potential personnel, acquire them, develop and to retain the same. The term ‘Personnel’ refers to ‘Body of employees’ who fill the various positions in an organization. Personnel administration is the collective concern towards the human resources of an organization.

II. Course Objectives:

1. Maximum individual development – the employer should always be careful in developing the personality of each individual.
2. Desirable working relationship between employer and employee

III. Course Outline:

Unit I: Personnel Administration – Definition, Nature, Objectives, Principles.

Unit II: Personnel Policy – Definition, Scope, Process, Objectives, Contents of Personnel file & Personnel audit, Personnel Department Structure, proper Environment around factory.

Unit III: General Communication – Drafting of appointment orders, Interview letters, Promotion, Transfer & Appreciation Letters, Notices & Circulars (All Types)

Unit IV: Wage & Salary Administration – General consideration in wage & Salary administration – Objectives & principles, Time keeping, Attendance.

Unit V: Disciplinary Action Communication – Suspension Orders, show cause, Notices, memo, charge sheet, warning, letter of termination & dismissal.

Unit VI: Challenges of modern personnel manager.

Books Recommended:

1. Guide on Labour Management forms and precedents (Law, Practice & Procedure) by S.D. Puri (Snow white publications)
2. Personnel Management by Edwin Flippo
3. Personnel Management by C.B. Mamoria

4. Dynamics of personnel Administration by Rudrabaswaraj.

COURSE CODE & TITLE: C208 III- INVESTMENT BANKING

I. Course Description:

Investment Banking:

A financial intermediary that performs a variety of services. Investment banks specialize in large and complex financial transactions such as underwriting, acting as an intermediary between a securities issuer and the investing public, facilitating mergers and other corporate reorganizations, and acting as a broker and/or financial adviser for institutional clients.

II. Objectives:

Main objectives of this course are to:

1. Provide an insight into the Indian investment banking industry.
2. To provide background knowledge of the industry of investment banking so that they are able to relate the following terms.
3. Merchant banking, Mergers and Acquisitions,

III. Course outline:

Unit – I:

Nature and scope of investment management –what is investment?- Financial and economic meaning of investment- investment and speculation – investment and gambling- why investment are important Structure and Characteristics of Investment Banking, Concepts and definition of investment banking

Unit – II:

Overview of Financial Markets- type of financial markets, money market, functions of financial markets, various financial services, Introduction to Capital Market, Objective and Importance of Capital Market, Components of Capital Markets, Role of Capital Markets, new issue market, Stock Market

Unit – III:

Merchant Banking and Issue Management- Meaning & Concepts of merchant banking, merchant banking functions, Merchant banking v/s Investment banking, Functions of Merchant banking in issue management

Unit – IV:

Venture Capital- Meaning and Definition, features of venture capital, origin, types of venture capitalists, modes of finance, stages of investment/financing, factors affecting investment decision,

Unit – V:

Merger and Acquisitions_- Introduction to merger and acquisitions Introduction, Forms of expansion, reason of merger, Legal and Procedural aspects of merger, valuation of Firms, Case Studies related to mergers and acquisitions.

Reference books:

Financial Services –Shashi K.Gupta and Nisha Aggarwal
Investment Banking – Pratap G.Subramany

COURSE CODE & TITLE: C208 IV: PHARMACEUTICAL MANAGEMENT-II

I. Course Description: Our pharmaceutical companies are trying their best to achieve remarkable export sale in the international markets. This also provides quality management with special focus on pharmaceutical management for developing business leaders by nurturing knowledge, skills, communication, attitudes and behavior. Pharmaceutical export is contributing to the GDP of the country and every year this contribution is positively growing. The content of the course is designed to address the challenges facing the pharmaceutical industry. The Indian pharmaceutical company has been built from an industry that copies patent drugs and manufactures them inexpensively. Now it is counted amongst the industries that are fuelling India's economic growth and holds enormous potential. Indian-based pharmaceutical companies are also predicted to gain considerable market share in the world. It holds rank worldwide, in terms of technology, quality and range of medicines manufactured. Thus the course concentrates on the Pharmaceutical Export: Facts and Challenges that should not be ignored.

II. Objectives:

1. To know about production management, production planning and control, design and development of packaging, marketing of pharmaceuticals.
2. To know the pharmaceutical research techniques, product management, planning, marketing accounts and finance as well as Quality Control of Pharmaceuticals.
3. To know the Inventory control, concept and techniques to improve production In packaging, marketing, sale and accounting.

III. Course Outline :

UNIT I : Production Management:

Fundamentals of production, organization, economic policy, manufacturing economics, production capacities, production lines and job balancing, visible and invisible inputs, methodology of activities. Production planning and control, production processes Considerations for design of large scale manufacturing units including intricate design criteria for units to manufacture sterile and non-sterile products with special reference to tablets, capsules, and injections. Design and development of packaging units including recent advances in packaging techniques for various types of sterile and non-sterile dosage forms. Warehousing design, construction, maintenance and sanitation; good warehousing practice, materials management.

UNIT II: Pharmaceutical Marketing:

Evolution of marketing concept; production oriented, sales oriented, promotion oriented and consumer oriented (modern concept); market segmentation; concept of marketing, mix Role of 7 P's (Product, Price, Promotion, Place, Physical Evidence, Process, People) in Pharmaceutical Marketing Management, corporate planning & strategy, Pharmaceutical industrial marketing management. Pharmaceutical marketing environment. Product management. E-Pharma Marketing.

UNIT III: Product Planning:

Selection of product, new product development and product differentiation, pricing, promotion – personal selling; salesmanship, qualities of salesman, management of sales force, advertising, publicity and window display, channels of distribution.

Marketing Research: Definition and importance, Pharmaceutical Marketing Research techniques, marketing information system, pharmaceutical marketing research area.

Market Demands and Sales Forecasting: Major concepts in the demand measurement, estimating current demands, geo-demographic analysis, estimating industry sales, market share and future demand, sales forecasting.

UNIT IV: Introduction to financial management:

Financial planning and control, working capital management, management of fixed assets. Concepts and techniques of financial management decision, concepts in evaluation – time value of money, valuation of a firm’s stock, capital assets pricing model, investment in assets and required returns, risk analysis, financing and dividend policies, capital structure decision, working capital management, management of cash, management of accounts receivable, inventory management.

Evaluation of investment decisions by pay back period, accounting rate of return, net present value methods, break even analysis.

Project definition, preparation of feasibility assessment and selection, project reporting, conventional project appraisal; limitations, towards a new framework. Projections, profitability, cost and benefit analysis, appraisal criteria – financial, economic and social. Risk analysis.

Prescribed Textbook:

1. Management accounting by Khan & Jain; Tata Mc Graw Hills
2. Cost Accounting Methods & Problems by BHAR ; A P Academics
3. Cost Accounting Principles & Practice by Dutta ; Pearson

Suggested readings:

1. Product Management by Lehmann IV th edition; Tata Mc Graaw Hills
2. Project Management- The Managerial Process by Gray & Larson; Tata Mc Graw Hills
Investment & Portfolio Management by M. Ranganathan; Pearson Publication

COURSE CODE & TITLE: C-208V: APPLICATION & METHODOLOGY OF BIOTECHNOLOGY

I. Course Description: Biotechnology can be broadly defined as "using organisms or their products for commercial purposes." As such, (traditional) biotechnology has been practiced since the beginning of recorded history. It has been used to bake bread, brew alcoholic beverages, and breed food crops or domestic animals. But recent developments in molecular biology have given biotechnology new meaning, new prominence, and new potential. It is (modern) biotechnology that has captured the attention of the public. Modern biotechnology can have a dramatic effect on the world economy and society.

II. Objective:

1. To acquaint the students with the significance of Methodology of Biotechnology.

III. Course Outline:

Unit I: Plant Tissue culture: Primary culture, callus, Somaclonal propagation, application, Scope and applications Pharma and agriculture-products, new bio products, tissue culture based products, crop improvement and protection, floriculture, herbal medicine.

Unit II: Animal Tissue culture: Animal cell culture- basics and techniques, organ culture, application.

Unit III: Recombinant DNA technology- Restriction endonucleases, Gene Cloning, genome library, Vectors, Plant and animal Vectors, molecular cloning strategies.

Unit IV: Introduction to Plant Biotechnology: Transgenic Plants, Introduction to Animal Biotechnology, Transgenic animals

Unit V: Hybridoma technology-basics of immunology, Immunization techniques, Hybridoma technology and applications,

Unit VI: Bioinformatics: Data Analysis- Accessing databank, sequence analysis, BLAST, sequence comparison, multiple alignments, Clustal W, protein structure prediction.

Books Recommended:

1. B. D. Singh, Biotechnology, Kalyni Publishers, 1st Edition.
2. Kumar H. D., Textbook of Biotechnology, East-West Press
3. Attwood T. K., D. J. Parry-Smith, Introduction to bioinformatics, Pearson Education
4. Rastogi, Bioinformatics: Methods and Applications, Prentice Hall India, 2nd Edition
5. David Mount, Bioinformatics: Sequence and Genome analysis
6. Stephen and David, Introduction to Bioinformatics: A theoretical and practical approach

COURSE CODE & TITLE: C-208VI: IT IN BUSINESS MANAGEMENT

I. Course Description: This course is to providing computing, telecommunications, networking infrastructure and audio visual support to academic and administrative programs and services. The information technology implements cost effective solutions that enhances the organization`s ability to provide a quality education for students and it gives administrators and faculty the means to operate successfully.

II. Course Objectives:

1. To develop skill for maintaining a reliable and scalable information technology infrastructure, enabling innovative uses of technology for educational excellence.
2. To develop a technology governance process which includes input from all clients

III. Course outline:

Unit I: Information Technology Framework: Information System Functionality-Comprehensive Information System Integration-Communication Technology-Rationale For ERP Implementation-ERP System Design-Supply Chain Information System Design.

Unit II: Impact of Globalization & Information Technology on different areas of management practices

Unit III: Information Technology in Supply Chain: Role and Importance of IT in Supply Chain Management, IT solutions for Supply Chain Management, Supply Chain Information Technology in Practice

Unit IV: Global IT Management: Introduction, Challenges & Opportunities of IT in Global Market.

Unit V: Ethical issues of IT in Business

Prescribed books:

1. 1.Management Information System: Jawadekar
2. Management Information System: Laudon & Laudon
3. The Essential Guide to Knowledge management: Amrit Tiwana

Reference Books:

1. Douglas Long International Logistics: Global Supply Chain Management Springer-Verlag New York, LLC;2004
2. Information Technology Enabled Services – Vol. 1 and 2 (ICFAI University Press)

COURSE CODE & TITLE: C-208VII EXPORT &IMPORT MANAGEMENT

I. Course Description: Globalization has affected all countries of the world and global trade is growing at pace that makes it importance for business to stay attuned to the changing world economy. Till the early 1990s, most of the countries were closed economies there were quantitative restrictions on import and stringent restrictions on foreign investment. The emerging economies along with the development countries have assumed an importance role in the field of international trade.

II. Course Objectives:

1. Help in understanding of EXIM procedures assumes greater significance in today's global world.
2. In order to manage global business, it is essential to understand the procedures, regulations, stipulations, provisions and opportunities involved in export and import.

III. Course Outline:

UNIT I: Understanding International Trade Environment

- **Introduction to Export & Import Management**

Nature and Defined of Export Management, Need and Features of Export Management, Motivation for Export, Process of Export Management, Functions of Export Manager

- **International Trading Environment**

Multilateral Trading System Uruguay Round, Measures for Protection of Domestic Industries Trade Block & Trade Agreement, Implication for Market Entry Strategies.

- **Organizing & Registration of Export & Import Process**

Nature of Export Firm, Setting up an Export Firm, Procedure for the Allotment of Importer and Exporter Code Number, Registration of Export Firm, Starting Export Business Tips

UNIT II: Managing Exports Business

- **Method of Payment**

Nature / Method of Payment Terms, Advance Payment, Open Account, Letter of Credit (Form & Type of L/C), Documentary Collection, Instruments of Payment (Incoterms).

- **Export Pricing Decision**

Nature of Pricing Decision, Price Defined, Structure of Cost, Setting price & Price Negotiation, Content of an Export Price Quotation.

UNIT III: Execution of Export Order

- **Export – Import Documentation, Procedures and Steps**

Steps for Successful Exporting, Export – Import Documentation.

- **Business Risk Management and Coverage**

Risk Management in Export – Import Business, Types Of Risks, Quality and Pre-shipment Inspection.

- **Export Contract & Incoterm**

Incoterm – Terms and Condition, Purpose and Scope of Incoterm, The Structure of Incoterms, Incorporation of Incoterms into the contract of sale, Inco term Group.

UNIT IV: Post Export Follow up

- **Customs Clearance of Export Import Cargo**

Clearance of Export Cargo, Clearance of Import Cargo, Customs Valuation.

- **Export Incentive Schemes**

Duty Exemption Schemes, Duty Remission Schemes, Export Promotion Capital Goods Scheme, Special Economic Zones.

- **Import Procedures**

Types of Importer, Import of Unrestricted Item, Import of restricted Item, Import Clearance & Documents, Cargo Handling and Demurrage Charges, Application Fee for Import Licences.

- **World Shipping & Containerization**

Overview of Shipping Operation, Types of Ships and International Trade, Need & Type of Containerization, Inland Container Depots.

Prescribed books:

1. Export Import Management By Justin Paul and Rajiv Aserkar , Oxford Publishing
2. Export Management , BY P.K. Khurana , Galgotia Publishing

Reference Books:

1. Export and Import Management By Aseem Kumar , Anurag Jain Publishing.

C208 VIII- HOSPITAL ADMINISTRATIONS

I. Course Description: The Masters in Hospital Administration is aimed towards orienting and developing students for executive positions in hospitals. The course develops the managerial skills of individuals and also exposes them to clinical aspects of hospital management. The students have the option of developing their skill set in a particular area of hospital management while taking the optional modules.

II. Course Objectives:

1. Students should be able to work in teams and help in team building across different faculties and departments in the hospital
2. Students should be able to identify problem areas and integrate practices that help towards quality improvement
3. Students should be able self assess and participate in continuous professional development

III. Course Outline:

Unit I: Hospital Organization-Structure, Function, Role In Primary Health Care

Unit II: Hospital Administrator- Roles/Responsibilities

Unit III: Skills of A Hospital Administrators

Unit IV: Hospital Operations Management

- OPD
- Inpatient
- ICU
- OT
- Accident And Emergency
- Day Care
- Nursing Services
- Diagnostic(Lab/Radiology)
- Hospital Records/HIS
- Dietary Services
- CSSD

- Laundry Services
- Bio Medical Services
- House Keeping/Maintenance Services

Unit V: Human Resource /Personnel Management

Unit VI: Materials Management In Hospital

Unit VII: Quality Management In Hospitals

Unit VIII: Laws and Ethics Related To Hospitals & Financial Management In Hospitals

COURSE CODE & TITLE C208 IX: PRODUCTION & OPERATIONS MANAGEMENT

I. Course Description: The management of the efficient transformation of inputs into outputs to suitably satisfy customers. Inputs are materials, labor, capital and management. Outputs are products or services, which customers want and often pay for. The course provides an introduction to the operations and the related management concepts. The level of discussion varies from strategical to daily control of business processes.

II. Objectives:

- 1) To explain the role of operations, and their interaction with the other activities of a firm: finance, marketing, organization, corporate governance, etc.
- 2) To understand how operations affect people and society.
- 3) To appreciate the challenge, excitement and creativity associated with managing operations.

III. Course Outline:

Unit I: Production Management: Integrated Production Management, System Productivity, Capital Productivity, Labour Productivity, Personnel Productivity, Training, Nature and scope of Operations: Functions of Operations Management, System's perspective, Challenges in Operations Management, Competitiveness, Types of Manufacturing and service Systems.

Unit II: Facilities Planning, Layout and Material Handling: Location , factors affecting size of the firm, factors affecting plant location, economic survey of the site selection , computation of investment and cost of production and distribution , factors and location rating, break even analysis for facility location planning, simple median model, centre of gravity method, Plant layout, material flow system, process layout, product layout, mixed layout, project layout, cellular layout, process charts, flow diagram, travel chart, REL chart

Unit III: Inventory Management, Production planning and control: Continuous Inventory Systems, Periodic Inventory system, Two- bin system, The ABC classification, EOQ methods, Order quantity with variable demand, order quantity for a periodic inventory system, Production planning Hierarchy, Aggregate planning, Level strategy, Chase strategy, Mixed strategy, Disaggregating the aggregate plan, Rough Cut Capacity planning, Material Requirement planning

Unit IV: Quality Management: Meaning, cost of quality, contribution of famous quality Guru, TQM, Six Sigma, SQC, Quality certification

Unit V: Maintenance Management: The Maintenance Function, Equipment Life Cycle, Measures of Maintenance Performance, Maintenance Strategies, Total Productive Maintenance

IV. Prescribed books:

1. Production and Operations Management – Chary - Tata McGraw- Hill Publications
2. Operations Management for Competitive Advantage – Chase, Aquilano, Jacobs, Agarwal
Tata McGraw- Hill Publications

COURSE CODE & TITLE: C 208 X - INTRODUCTION TO BUSINESS ANALYTICS

I. Course Description:

Analytics has been defined as the extensive use of data, statistical and quantitative analysis, explanatory and predictive models, and fact-based management to drive decisions and actions. Analytics is more than just analytical methodologies or techniques used in logical analysis. It is a process of transforming data into actions through analysis and insights in the context of organizational decision making and problem solving. Analytics includes a range of activities, including business intelligence, which is comprised of standard and ad hoc reports, queries and alerts; and quantitative methods, including statistical analysis, forecasting/ extrapolation, predictive modeling (such as data mining), optimization and simulation.

II. Objectives:

1. To introduce the fundamental ideas behind optimization technology to the extent that you can utilize this knowledge to build your own solvers based on various paradigms.
2. To gain an understanding of how managers use business analytics to formulate and solve business problems and to support managerial decision making.
3. To learn how to use and apply Excel and Excel add-ins to solve business problems.

III. Course Outline:

Unit I. Overview of Business Analytics: Introduction to Analytics, Competing on Analytics, Analytics: The New Path to Value.**Unit II. Visualization/ Data Issues:** Organization/sources of data, Importance of data quality, Dealing with missing or incomplete data, Data Classification, The Dark Side of Customer Analytics

Unit III. Introduction to Data Mining: Introduction to Data Mining, Data Mining Process, Various Data mining tool , Market Basket Analysis , Classification and Regression Trees

IV. Introduction to Decision Modeling: Optimization Use of Excel to solve business problems: e.g. marketing mix, capital budgeting, portfolio optimization, Decision Making under Uncertainty Simulation

Unit V: Introduction to risk: Types of problems: inventory management, capital investment analysis, market share estimation, sensitivity analysis

Prescribed books:

1. Kerns, G. J. (2010). Introduction to probability and statistics using R. Publisher: G. Jay Kerns.
2. Verzani, J. (2014). Using R for introductory statistics - 2nd Edition. New York: Chapman & Hall.
3. Webster J.C. and Albert M.Cook, -Clinical Engineering Principle and Practicell, Prentice Hall Inc., Englewood Cliffs, New Jersey, 1979 (Unit I).
4. Goyal R.C., — Handbook of hospital personal managementll, Prentice Hall of India

C-209 : DATA ANALYTICS

I. Course Description: This course seeks to present you with a wide range of data analytic techniques and is structured around the broad contours of the different types of data analytics, namely, descriptive, inferential, predictive, and prescriptive analytics.

II. Course Objectives :

1. To understand business intelligence and business and data analytics.
2. To provide a basic understanding of data analysis using statistics and to use computational tools on problems of applied nature.
3. To Create competitive advantage from both structured and unstructured data.

III Course Outline:

Unit I: Introduction to excel: Start Excel Open/create spreadsheet Save & exit spreadsheet Edit spreadsheet using formulae and function Format spreadsheet Print spreadsheet Using multiple spreadsheet , Understanding excel`s Files, Ribbon and Shortcut, Essential worksheet operations, Visualizing data using conditional formatting, printing your work

Unit II: Statistics in Business: Descriptive Statistics , Probability Distributions, Machine Learning: Introduction and Concepts, Differentiating algorithmic and model based frameworks.

Unit III: Decision Science: Decision Sciences and role of Quantitative Techniques, Managerial decision modeling with spreadsheet.

Unit IV: Working with dates, times and text, creating formulas that count, sum, subtotal, creating formulas for financial applications, creating formulas that look up values, creating charts and graphics.

Unit V: Using custom number formats, using data tab and data validation, protecting your work, performing spreadsheet what-if analysis. Analyzing data with the Analysis tool pak, using pivot tables for data analysis.

Prescribed books: Quantitative Techniques in publishers India Ltd. , 4th Edition

Reference Books

1. Introduction to operations Research by billey E. Gillett, TMGH

2. Operation Research by Nita Shah , Ravi Gor , Hardik Soni,PHI
3. Hastie, Trevor, et al. The elements of statistical learning. Vol. 2. No. 1. New York: springer, 2009.
4. Montgomery, Douglas C., and George C. Runger. Applied statistics and probability for engineers. John Wiley & Sons, 2010

SEMESTER III

COURSE CODE & TITLE: C 301–BUSINESS POLICY & STRATEGIC MANAGEMENT

I. Course Description:

Strategic management gives a holistic direction to the organization by stating the organization's objectives and goals, formulating and implementing policies, evaluating and control of the said objectives and goals and also allocating resources to implement the plans.

Strategy crafting and decision making is a dynamic and vital area for optimum management and functioning of any company for survival and growth as it helps companies decide their long term goals, finalization of action plans and resources to achieve the same.

II. Objectives:

- a. To help students understand concepts and give exposure to various viewpoints in the field of strategic management.
- b. To help students understand strategic tools.
- c. To help students develop skills to understand and solve business related problems through strategies.

III. Course outline:

Unit-I: Introduction to Strategic Management and Business Policy decisions, Environmental appraisal, corporate level strategies, Business level strategies, Strategic management in Indian firms, Practices and cases:

- Introduction to business policy and strategy, concept of strategy. Corporate, business and functional levels of strategy. Introduction to Strategic Management, definition of strategic Management, elements of strategic management, model of strategic management processes, strategic management vs operational management. Stakeholders in business.
- Hierarchy of Strategic Intent: Understanding strategic intent, concept of stretch and fit, vision, mission, business definition, business model, goals and objectives.

Unit – II: Strategy Formulation

- Concept of environment, characteristics of environment, internal and external environment, environmental sectors, environmental scanning, appraising the environment, Industry analysis- Porters five forces model of competition, competition analysis and competitive edge, ETOP.
- Organizational appraisal: Company internal environment, organizational appraisal, concept of value chain, value chain analysis, organizational capability factors, structuring organizational appraisal, SWOT.
- Corporate Level Strategies: Concentration, integration, diversification, internationalization and cooperation, stability, retrenchment and restructuring, merger and acquisition strategies, achieving acquisition success, effective acquisition
- Business Level Strategies: Managing relationship with customers, purpose of business level strategies, foundations of business level strategies, positioning of firm in industry, business

strategies for different industry conditions, cost leadership strategy, differentiation strategy.

Strategic analysis and choice

- Strategic alternatives, strategic analysis, contingency strategies.
- Tools and techniques for strategic analysis-, , GE 9 cell model, Portfolio analysis- BCG matrix, experience curve, impact matrix.

Unit – III: Implementing strategic plan-

- Implementing strategic plan – Role of chief executive officer and the board of directors, Role of top management – Power games – Strategic management in MNC, functional and operational implementation, corporate culture, structure and organizational values.

Unit – IV: Strategic evaluation

- Operations control and Strategic control, Techniques for Strategic Evaluation and Control, Symptoms of malfunctioning of Strategy.

Unit – V: Government policies and strategic policy decisions – Ethics and social responsibility of business,

– Ethics and social responsibility of business, Corporate Governance.

- Government policies, CSR.

Prescribed Books:

1. Azhar Kazmi, –Strategic Management and Business Policy, Tata Mc Graw Hill, 3rd Edition.
2. Thompson, Strickland, Gamble and Jain, –Crafting and Executing Strategy- The quest for Competitive Advantage, Tata Mc Graw Hill, 16th Edition.
3. P. Subba Rao, 'Business Policy and Strategic Management' Himalaya Publishing House.
4. Hitt Et. All., Strategic Management, 9th Edition, Cengage Learning.

Suggested readings:

Francis Cherunilam, —Strategic Management.

Websites:

<http://www.thepalladiumgroup.com>

<http://www.mckinsey.com>

Elective I

COURSE CODE & TITLE: C302A-SALES & DISTRIBUTION MANAGEMENT

I. Course Description:

Economic growth can only be increased and sustained if manufacturers, distributors and the service industries are able to sell and distribute their products profitably to the widest possible markets.

Selling, Sales & Distribution Management are therefore essential functions without which economic growth cannot take place.

II. Objectives:

1. Understand the role and contributions of Sales and Distribution Management in the corporate marketing strategy.

2. Understand different types of buyers, their buying process and preparing suitable selling strategies, developing required skills and leveraging information technologies.

III. Course outline:

Unit – I: Introduction to Sales Management:

- Marketing vs. Sales
- Sales Strategies

Unit – II: Sales Techniques:

- Personal selling process
- Consumer and organizational buyer behaviour
- Sales responsibilities and preparation
- Key Account management
- Customer Relationship Management

Unit – III: Sales force Management:

- Designing and organizing the sales force
- Recruiting and selecting right salespeople
- Training, motivating and developing the sales force

Unit – IV: Sales environment:

- Cultural factors that effect a Firm's sales performance
- International Selling
- Selling of financial services
- B 2 C selling Vs. B 2 B selling

Unit – V: Distribution Management:

- Marketing Logistics
- Distribution role and functions of Channels
- Channel Design Decisions, Channel Selection Criteria and Issues
- Channel Management & Conflict Management

Prescribed books:

1. Sales and Distribution Management – Text and Cases By: Krishna K. Havaladar & Vasant M. Cavale, TATA McGraw-Hill

Suggested readings:

1. Selling and Sales Management; David Jobber & Geoff Lancaster: Pearson Education
2. Sales Management-Shaping future sales leaders; John F. Tanner Jr, Earl D. Honeycutt Jr., & Robert C. Erffmeyer; Pearson Education.

COURSE CODE & TITLE: C303A-CONSUMER BEHAVIOR

I. Course Description:

The study of Consumer Buying Behavior helps us to understand the behavior a consumer shows in searching for, buying, using, evaluating, and positioning of products and services as they expect will satisfy their needs.

Consumer Behavior investigates the manner that people interact with products and their marketing environment. During this course we will explore, many social, cultural and marketing factors that influence the selection and usage of products and services.

Marketing ethics and Social Responsibility.

II. Objectives:

1. To help the student understand consumer behavior and the details of aspects related to consumer behavior.
2. To help students understand different models of consumer decision making.

III. Course outline:

Unit I: Introduction to Consumer Behavior:

- Consumer Behavior, its Origin and Strategic Applications.
- **Market Segmentation:** Importance of Market segmentation, Criteria for effective targeting. Basis of Segmentation, Implementing Segmentation Strategies.
- **Consumer Needs and Motivation:** Types and Systems of needs, Motivation dynamics.

Unit II: Personality and Consumer Behavior:

- Theories of Personality, Personality and Understanding Consumer Behavior, Brand Personality, Self and Self Image, Virtual Personality for Self.
- **Consumer Perception:** Sensory Dynamics of Perception, Elements of Perception, Consumer Imagery.
- **Consumer Learning:** The elements of consumer learning, Behavioral learning. **Consumer Attitude Formation and Change**, structural models of attitudes, attitude formation,
- **Communications and Consumer Behavior:** The source of message initiator, the receivers of target audience, the media, persuasive messages, and effectiveness.

Unit III: Influence of Family and Social class on Consumer Behavior:

- Family decision making and consumption related roles, the family cycle. Influence of Culture on Consumer behavior: Culture and need, culture is dynamic, cultural aspects in emerging markets. Cross-Cultural Consumer Behavior: Developing multi-national strategies. Cross cultural consumer analysis and psychographic segmentation.
- **Consumers and Diffusion of Innovations:** Adoption of innovations, the diffusion process, the adoption process.

Unit IV:: Consumer Decision making:

- Levels of consumer decision making, Models of consumers, Segments, lifestyles and consumer decision making.

Unit V:: Marketing ethics and Social Responsibility:

- Exploitative targeting, manipulating consumers, and social responsibility, Marketing to base of pyramid consumers.

Prescribed Books:

Consumer Behavior, Leon G. Schiffman and Leslie Lazar Kanuk & S. Ramesh Kumar, Tenth Edition. Pearson, India

Suggested Readings:

1. Consumer Behavior – Hawkins, Best, Coney
2. Customer Behavior – A Managerial Perspective – Sheth, Mittal – Thomson,

3. Conceptual Issues In Consumer Behavior Indian Context – S Ramesh Kumar-Pearson.

COURSE CODE & TITLE: C304A-PRODUCT & BRAND MANAGEMENT

I. Course Description:

Product and Brand Managers are the lifeblood of many of the world’s most successful companies. They provide their companies with significant competitive advantage. Generally they are responsible for the development and introduction of new products, including pricing, promoting and distributing products. They also manage old, new and derivative products (product extensions); determine when old products die and how to position their products against the competition.

II. Course Objectives:

1. The role of brands, the concept of brand equity and the advantages of creating strong brand equity.
2. The three main ways to build brand equity by properly choosing brand elements, designing marketing programs and activities, and leveraging secondary associations.

III. Course outline:

Unit I: Product Management: Product Development, Product focused organization; Market focused organization, Factors influencing design of the product, Changes affecting product management.

Unit II: Developing Product Strategy: Setting objectives & alternatives, Product strategy over the life-cycle, Customer analysis, Competitor analysis, Design of manufacture, New product development.

Unit III: Brands & Brands Management:

- Commodities Vs Brands
- The role of brands
- Branding Challenges and opportunities
- The Brand equity concept
- Building a strong Brand
- Sources of brand equity: Brand Awareness & Brand Image.

Unit IV: Brand Positioning & Brand Building

- Brand knowledge
- Brand portfolios and market segmentation
- Identifying and establishing brand positioning
- Defining and establishing brand values.
- Steps of brand building: Choosing Brand elements
- Designing marketing programs to build brand equity
- Integrated Marketing Communications

Unit V: Brand Leveraging & Brand Performance

- Leveraging secondary brand associations
- Co-branding
- Celebrity endorsement
- Establishing brand equity management system,
- Measuring sources of brand equity and consumer mindset

Unit VI:: Designing & Sustaining Branding Strategies

- Brand hierarchy
- Designing a Branding strategy
- Brand extension and brand transfer
- Managing brand over time
- Using cause related marketing to build brand equity.

Unit VII:: Measuring and Managing brand equity

- Brand Value chain & Brand Audits
- Brand Tracking, Brand Valuation.
- Brand Equity Models – Brand Asset Valuation, Aaker Model, BRANDZ,
- Brand Resonance, Reinforcement, Revitalization, Crisis

Prescribed Books:

1. Strategic Brand Management By Kevin Lane Keller, M.G.Parneswaran & Issac Jacob, 3rd edition, Pearson education.
2. Product management - Donal R. Lehmann, Russel S. Winer

Suggested Readings:

1. Branding Concepts & Process - Debashish Pati
2. Marketing Management - Philip Kotler
3. Successful Branding - Pran K Choudhary
4. Brand Positioning Strategies for Competitive Advantage -Subrato Sen Gupta
5. Strategic Brand Management –Caperer
6. Behind Powerful Brands – Jones

<u>Elective II (HRM)</u>

COURSE CODE & TITLE: C305 B-PERFORMANCE COMPENSATION MANAGEMENT

I. Course Description:

This course familiarizes students with the concepts of Performance & compensation management within the wider context of human resource management. It provides students with an understanding of the reward management process which includes pay survey, job evaluation, and the design of pay structure. Students will acquire basic data management techniques and recognize what are the factors that determine the pay levels and benefits of employees in the job

market.

II. Objectives:

This course aims at enhancing students' capability and decision making skills in handling Performance and compensation management functions within the context of human resource management. It is expected that students will be mindful about the application of ethical and legal principles in the design process of compensation and performance management systems.

III. Course outline:

Unit-I: Foundations of Performance Management

- Concepts of Performance Management
- Performance Appraisal to Performance Management,
- The five-Factor Model,
- Effective Performance Management & Challenges to PM.
- Introduction, Aims, Need, Elements, and Functions of PMS
- Competency based PMS
- E-Performance Management.
- Performance Counselling

Unit-II: Performance Planning & Managing

- Concepts of Performance Planning.
- Developing Performance Plan
- Process & Barriers of Performance Planning
- Effective Performance Plan, Performance Managing & Competency Mapping

Unit-III: Performance Appraisal

- Concepts of Performance Appraisal
- Performance Appraisal Interview & Methods of Appraisal
- Common Rating Errors & Pitfalls of Performance Appraisal
- Good Performance Appraisal System
- Performance Monitoring

Unit-IV: Implementing Performance Management

- Hindrances in Implementation of PM
- Strategies for effective implementation of PM
- Reward Management
- Job performance & Job Satisfaction
- Arguments for and against Performance based rewards
- High Performance teams.
- Hr, Ethics and performance management

Unit-V: Foundations of Compensation Management

- Objectives, significance of Compensation

- Wage & Compensation
- Principles of Compensation Formulation
- Theories of Wage determination
- Types of wages & Significance of Employee Compensation
- VIE Theory
- Compensation Decision
- Types of Executive Compensation
- Compensation Trends in India

Prescribed Books:

3. A.S. Kohli & T. Deb, Performance Management, Oxford, 10th Edition
4. D.K. Bhattacharya, Compensation Management, Oxford, 6th Edition

Suggested Readings:

1. K. Ashwathappa , Human Resource Management, Tata macgrahill, 4th Edition
2. T. V. Rao, Performance Management, Response Books, 1st Edition
3. Personnel Management by Edwin Flipp
4. Personnel Management by C.B. Mamoria

COURSE CODE & TITLE: C306 B-LABOUR LAWS

I. Course Description:

Labour laws are one of the most far-reaching, crucial aspects of a democracy. Their enshrinement in law and the mere fact of their existence acts as an often reliable safeguard to employment abuses. It provides an outlet for employee grievances, should there be justifiable reasons for such grievances.

II. Objectives:

- 1 In this course, the students are to be acquainted with the Industrial relations framework in our country. Further, the importance of the maintenance of Industrial peace and efforts to reduce the incidence of Strikes and Lockout and Industrial Strike are to be emphasized.
- 2 The main theme underlying the Programme is to critically examine the machineries contemplated under the provisions of the Industrial Disputes Act 1947 for the prevention and settlement of Industrial Disputes.

III. Course outline:

Unit I: Introduction to Industrial Relations, Industrial Disputes, Causes and effects of industrialdisputes, Grievance and disciplinaryaction,

Unit II: Strikes & Lockouts: Types ofstrikes, Legal provision in respect ofstrikes, Lockout and unfair labourpractices Industrial Disputes Act 1947: objectives, definitions, the prohibition of strikes & lock outs, lay-offs, retrenchment & closure. Unfair labour practices, settlementmachinery

Unit II: Retrenchment:

legal provisions and formalities of retrenchment, layoff, Voluntary retirement scheme, golden shake hands schemes, Closers

Labour Welfare: Voluntary Welfare Measures, Bonus calculation, Statutory Welfare Measures, PF and gratuity calculations, Introduction to occupational health, Well-being of employee-Job insecurity, working hours, and control at work.

Unit III: Legal framework :

Introduction to Factories act 1948

Industrial Disputes Act-1947

Workmen's Compensation Act-1923

Standing Orders Act-1964, Domestic Enquiry & Principles of Natural Justice, Trade union act 1926, Social security Acts : Objectives ,applicability & definitions, Procedures for certification & modification of standing orders, matters to be provided in standing orders

Unit IV: The payment of wages act 1936, The minimum wages act 1948, The Payment of Bonus act 1965, Industrial Employment (standing Order) Act 1946, applicability & definitions, Provisions & permissible deductions, the enforcement machinery, Penal provisions

Prescribed Books:

- Mamoria-Dynamics of Industrial relations
- S. P Jain – Industrial and Labour Laws.

Suggested Readings:

- S. C Srivastava - Social Security and Labour Laws.
- S. N Mishra - Labour Laws
- Srivastava K. D - Commentaries on Industrial Disputes Act, 1947.
- V. V Giri - Labour problems in Indian Industry.
- Malhotra O. P - Industrial Disputes Act Vol. I and II.
- Labour Law and Labour Relations Published by Indian Law Institute.
- Madhavan Pillai - Labour and Industrial Laws.

COURSE CODE & TITLE: C307 B-STRATEGIC HRM

I. Course Description:

Strategic HRM will deal with various issues of strategic HRM. The course will cover various topics ranging from Organisation theory, Economics, Labor market issues, performance management systems, recruitment training and retention of employees.

II. Objectives:

1. In this course, the students are to be acquainted with the Industrial relations framework in our country. Further, the importance of the maintenance of Industrial peace and efforts to reduce the incidence of Strikes and Lockout and Industrial Strike are to be emphasized.
2. The main theme underlying the Programme is to critically examine the machineries contemplated under the provisions of the Industrial Disputes Act 1947 for the prevention and settlement of Industrial Disputes.

III. Course outline:

Unit I: Introduction To Strategic HRM: Definition, need and importance; Introduction to business and corporate strategies; Integrating HR strategies with business strategies; Developing HR plans and policies

Unit II: Human Resource Environment: Technology and structure; Workforce diversity; Demographic changes Temporary and contract labour; Global environment; Global competition Global sourcing of labour; WTO and labour standards

Unit III: Recruitment and Retention Strategies : Online recruitment; Employee referrals; Recruitment process outsourcing Head hunting; Executive education; Flexi timing; Telecommuting Quality of work life; Work - life balance; Employee empowerment Employee involvement; Autonomous work teams

Unit IV: Training and Development Strategies: Creating a learning organization; Competency mapping; Multi-Skilling Succession planning; Cross cultural training

Unit V: Performance: Management System & HR Strategies: •Performance Evaluation and diverse functions • Characteristics of Different Performance Evaluation systems • Pay for Performance: Economic, psychological and social arguments opposite each other. • Striking the Balance: Some Key Issues and Tactics • If not Pay for Perform ance: Forms, Bases and Distributions of Rewards • How and why you do jobs more exciting and challenging? • Job design: Job - enlargement and job- enrichment

Unit VI: Reward and Compensation Strategies: Performance based pay; Skill based pay; Team based pay Broad banding; Profit sharing; Executive Compensation; Variable pay

Unit VII: Retrenchment Strategies: Downsizing; Voluntary retirement schemes (VRS) HR outsourcing; Early retirement plans; Project based employment

Unit VIII: Human Aspects of Strategy Implementation: Behavioral issues in strategy

implementation; Matching culture with strategy Human side of mergers and acquisitions; Leadership, power and politics; Employee morale; Personal values and business ethics

Unit IX: Global HR Strategies: Introduction to global HR strategies; Developing HR as a value added function

Books Recommended:

- 1 Strategic HRM – Jeffery Mello, Thompson publication, New Delhi
- 2 Strategic HRM – Charles Greer, Pearson education Asia, New Delhi
- 3 Strategic HRM - Michael Armstrong, Kogan page, London
- 4 Strategic HRM – Agarwal, Oxford university press, New Delhi
- 5 Human resource management – Garry Dessler, PHI, New Delhi

<u>Elective II (FINANCIAL MANAGEMENT)</u>
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COURSE CODE & TITLE: C305 C-STRATEGIC FINANCE MANAGEMENT

I. Course Description:

This subject examines the principle of adding value for shareholders through the selective restructuring of assets, liabilities and capital in the corporate organisation. The subject uses a case study method of instruction to expose students to actual financial decision making situations. In this way students draw on knowledge gained in previous subjects to analyse problems and strategic issues faced by the financial manager in the contemporary business environment.

II. Objectives:

1. To be able to explain how financial management relates to general corporate policy.
2. To be able to evaluate real world issues and problems faced by the financial manager, by being able to select appropriate financial techniques;
3. To be able to analyse financial data and provide a decision on a course of action that is in the best interest of firm shareholders; and
4. To be able to analyse and account for risk in the decision making process.

III. Course outline:

Unit I: Conceptual Framework

- Meaning of SFM
- Evaluation of costs and benefits
- Reasons for managing business financially
Strategy & strategist
- 9-s model for SFM

Unit II: Compensation Management.

- Need of compensation management.
- Types of employees & compensation strategy.
- Design of wage policy.
- Negotiations.
- Design and implementation of VRS
 - Implications of FBT.

Unit III: Financial Aspects of Supply Chain Management strategy with respect to Following areas

- Vendor management
- Purchasing
- Inventory control and its techniques
- Distribution Management Relationship with dealers
- Product pricing
- Marketing cost analysis

Unit IV: Corporate Valuation & Financial Restructuring

- Reasons for valuation of business enterprise.
- Different Approaches to enterprise valuation
 - i. Market Related Valuation-At replacement cost and realizable value.
 - ii. Future cash flows
 - iii. Market Capitalization
 - iv. Economic value added approach
 - v. Mergers & Acquisitions

Unit V: Overview of financial engineering.

- Meaning
- Benchmarking practices
- Innovative sources of Finance.
 - a. Off balance sheet financing.
 - b. Versatile bonds.
 - c. Junk Bonds.
 - d. Vendor Finance.
 - e. Co operative federation
- Funding strategies, monitoring and assessment.
- Programs and policies to reward various stake holders.

Unit VI: Taxation:

- Direct Taxes:
 - i) Personal Income Tax & Corporate Income Tax: Deductions, General provisions relating to TDS
 - ii) Wealth Tax
 - iii) Capital gains Tax
- Indirect Taxes:
 - i) Sales Tax: Concept of VAT, Important features of VAT, brief information about GST
 - ii) Excise Duty Features of Indirect Taxes, Nature of Excise Duty, Types of Excise Duties

iii) Service Tax Nature of Service Tax, Value of taxable service, Exemption from service tax, Classification of services, Procedures of Service tax

Unit VII: Ethical Aspects.

- Ethical Dilemma faced by Financial Managers.
- Need for corporate social responsibility.
- Corporate governance.
 - a. Recommendations of Kumar Mangalam Birla Committee.
 - b. Recommendations of Narayanan Murthi Committee.
- Financial Restructuring
 - a. Need for financial restructuring
 - b. Restructuring through privatization.
 - c. Restructuring of sick companies.
- Mergers and Acquisitions
 - a. Demergers
 - b. Accounting standard 14.
 - c. Provisions of companies act on amalgamations, minority interest.
 - d. Tax implications of mergers, Demergers.
 - e. Leverage buy-out.
- Joint ventures.
 - a. Meaning.
 - b. Accounting standard
- Reasons for Strategic Failures in mergers/acquisitions/Joint Ventures.

Books Recommended:

1. Strategic Financial Management- G.P. Jakhotiya
2. Strategic Finance Case Studies- N.J. Yashaswy
3. Guide to Companies Act- Rammaiya
4. Accounting Standards and Corporate Accounting Practices- T.P. Ghosh.

COURSE CODE & TITLE: C306 C-SECURITY ANALYSIS & PORTFOLIO MANAGEMENT

I. Course Description:

Security analysis and portfolio management course is to help students understand the investment field for sound investment decisions making. This course is designed to emphasize both theoretical and analytical aspects of investment decisions and deals with modern investment theoretical concepts and instruments.

Security Analysis is the subject to study the composition and performance of stocks in capital market. The stocks are analyzed using tools of fundamental analysis and technical analysis.

Portfolio management refers to the management or administration of a portfolio of securities to protect and enhance the value of the underlying investment. It is the management of various securities (shares, bonds etc) and other assets (e.g. real estate), to meet specified investment goals for the benefit of the investors. It helps to reduce risk without sacrificing returns.

II. Course Objectives:

1. Understand the traditional & modern investment avenues.
2. Understand Fundamental Analysis and Technical Analysis
3. Create and manage portfolios.

III. Course outline

Unit – I: Markets and Financial Instruments: Investment Objectives, Types of Markets- Equity, Debt, Derivatives, Commodities, Various types of Investment Avenues, Difference between Speculation & Investment.

Unit – II: Mutual Funds: The Concept of Mutual Funds, Advantages of Mutual Funds investing, Types of Funds

Unit – III: Risk and Return: Concept of risk and return, Measurement of risk - standard deviation and variance, Factors influencing risk, relationship between risk and return, CAPM

Unit–IV: Fundamental Analysis: Economy analysis, industry analysis and company analysis, weaknesses of fundamental analysis.

Unit – V: Technical Analysis: Tools of technical analysis, important chart formations, price patterns and technical indicators.

Unit - VI: Portfolio Theory & Portfolio Management - Efficient Market Theory, Random Walk Theory, Portfolio Management Framework, Guidelines for Investment Decisions.

Books Recommended:

1. P Pandian, _Security Analysis & Portfolio Management‘, Vikas Publishing Houses
2. P Chandra, _Security Analysis & Portfolio Management‘, McGraw Publishers
3. Fischer, _Security Analysis & Portfolio Management‘, Pearson India

COURSE CODE & TITLE: C307 C-FINANCIAL SERVICES & FINANCIAL

MARKETS

I. Course Description:

A financial system plays a vital role in the economic growth of a country. It intermediates between the flow of funds belonging to those who save a part of their income and those who invest in productive asset. It mobilizes and usefully allocates scarce resources of a country.

A financial system is a complex, well-integrated set of sub-systems of financial institutions, markets, instrument, and services which facilitates the transfer of funds, efficiently and effectively.

II. Objectives:

1. Understand the concept, Constituents,(SEBI, RBI, IRDA etc) and the role and importance of a financial system.
2. Understand the functions of stock markets and highlights of stock market reforms and Stock Trading and settlements.
3. Understanding Functions and services provided by merchant banks.

III. Course outline:

Unit-I- Financial Services and Institutions:

Meaning and role of financial services in a country's economy-Different types of financial services-Their advantages and disadvantages

Financial Institutions In India And Their Role-1) SEBI 2) RBI 3) Irda 4) Stock Exchanges 5) Commodity Exchanges 5) Stock Holding Corporations

Credit rating – Factoring and forfeiting – leasing and hire purchasing- Securitization of debts- Housing finance – Merchant Banking services and functions, Mutual Funds.

Unit II: Overview of Indian Financial System- Development Since 1991- Role of Financial Intermediaries- Various Financial Intermediaries

Unit III: Capital Market: Instruments-Traditional and Emerging (ECB, ADR, GDR) Capital Marketing in India- Operations in Primary Markets-Instruments involved-Role of SEBI.

Unit IV: Secondary Markets- Stocks Exchanges in India-National Stock Exchange(NSE)— Stock Holding Corporation of India (SHCIL)-Share Trading- Introduction to Derivatives and Commodities-Scrip less Trading –E-Trading-Index/Futures Trading –Share Lending Scheme- Book Building – Buy back of shares-Mergers & Acquisition –Regulations.

Unit V: Money Market – Nature and role of Money market in India – Instruments in Money Market viz, CPs, CDs, Bill of exchange, ICDs, Treasury Bill – Role of DFHI/STCI in Money Market – ECBs

Unit VI: Overview of Financial Markets: type of financial markets, money market, functions of financial markets, various financial services, Introduction to Capital Market, Objective and Importance of Capital Market, Components of Capital Markets, Role of Capital Markets, new issue

market, Stock Market

Unit VII: Short term financial Markets: Eurodollars, Euro currencies, Euro notes and Multinational Banking Market Efficiency: Efficiency of money markets and efficiency of foreign exchange markets.

Unit VIII: Long term financial markets : Equity and Bond investments, Equity and Bond financing, Eurobonds and foreign bonds, Multi-currency bonds, Bank financing – Parallel Loans and Credit Swaps.

Books Recommended:-

1. Indian Financial Services- M.Y. Khan
2. Marketing of Financial Services- V. A. Avdhani
3. Advance Financial Management- Kohak
4. Relevant Text of SEBI Guidelines.

Elective II (PHARMACEUTICAL MANAGEMENT)

COURSE CODE & TITLE: C305 D-PHARMA PRODUCT & BRAND MANAGEMENT

I. Course Description: This course defines the principles of the product management system which gives a complete overview of the role of product management in the pharmaceutical industry. In order to increase creativity and efficiency of product managers, the course focuses on strategic planning and profit responsibilities and how to make the product manager familiar with the basic marketing concepts.

II. Course Objective: This course enables students to learn about the basics of brand and development of brand of a product as well as pharma products.

II. Course Outline:

Unit I: Product: Concept, classification, levels, Product Mix.

Unit: II: Concept of Brand: Introduction, Role of brand, Advantages of Branding, Core Values of Brand.

Unit: III: Brand Equity: Concept, Brand elements. Principles of Branding, Communication Mix Strategy.

Unit IV: Brand Media: Communication Channels and techniques, Advertising, Brand Perception, and Packaging.

Unit V: Brand Extension: Nature, advantages and disadvantages, factors of brand extension. Brand personality: Nature, advantages, brand personality and user imagery. Concept of Brand positioning.

Unit VI: Brand Strategy: Introduction and type of strategies.

Unit VII: Brand valuation: Meaning, techniques, methods of valuing a brand. Introduction to service brands.

Books Recommended:

- 1 Pharmaceutical Marketing by Mickey C. Smith
- 2 Pharmaceutical Product Development by N. K. Jain
- 3 Product Management by Lehman & Winer

COURSE CODE & TITLE: C306D-PHARMA SALES, DISTRIBUTION & RETAIL MANAGEMENT

Course Description: This course focuses on the Pharma services, how to obtain orders, and establishes new accounts by planning and organizing daily work schedule to call on existing or potential sales outlets and other trade factors. How to adjust content of sales presentations by studying the type of sales outlet or trade factor and also focuses sales efforts by studying existing and potential volume of dealers.

Course Objectives:

1. To study of pharmaceutical sales is different from study of general sales, various factors like physicians behaviour, promotional strategy, marketing reputations of organizations etc.
2. It enables students to understand about selling of medicines and pharmaceutical market dynamic.

Course Outline:

Unit I: Need and scope of Pharmaceutical selling

Unit II: Direct selling – concepts & types

Unit III: Role & responsibility of medical representatives

Unit IV: Distribution channel and network in pharmaceutical industry, Distribution Channels: Manufacturer; Wholesaler; Retailer; Hospital and Government Agencies.

Unit V: -Managing sales force

Unit VI: -Pricing of pharmaceutical products

Unit VII: -Sales forecasting of pharmaceutical products

Unit VIII: Retail Competition – The Community Level; International Marketing.

Unit IX: -Principal channel relationship

Books Recommended:

1. Prahlad, CK and Hart, Stuart L(2002). _The Fortune at the Bottom of Pyramid‘, strategy
2. Jaiswal, anand K.(2008). _The fortune at the Bottom or the Middle of the Pyramid?‘, Innovations, 3 (1), 85-10

COURSE CODE & TITLE: C307D-PHARMACEUTICAL MANUFACTURING & REGULATORY AFFAIRS

I. Course Description: The Regulatory Affairs function within the pharmaceutical industry is absolutely pivotal to the successful development and licensing of safe and effective medicines, to the benefit of patients' health worldwide. The course focuses on a winning combination of lectures and interactive case studies that afford you the opportunity to put theory into practice.

II. Course Objective: The objective of the Pharmaceutical Manufacturing & Regulatory Affairs subject is to participate in the legislation related activities which govern all aspects of drugs, Research, Quality Control, Sales Manufacturing and Distribution of drugs etc. in both proactive and reactive manner. To effectively discuss all draft amendments of primary legislations dealing in drugs namely, Drugs and Cosmetic Act, and offer suggestions to the Drugs Controller - General (India), Government of India, New Delhi.

III. Course Outline:

Unit I: Historical perspective on the impact of Food and Drug laws.

Unit II: Drug regulatory and accrediting agencies of the world (USFDA, TGA, ICH, WHO, ISO etc.)

Unit III: Globalization of drug industry, present status and scope of pharmaceutical industry in India. WHO and NABL certification, ICH guidelines for manufacturing and quality assurance of drug formulation.

Unit IV: Manufacturing: Introduction, regulatory requirements as per Indian and other regulatory authorities for manufacturing information formula, process, validation of manufacturing process, equipment, documentation, inspection requirement, regulatory guidelines for active ingredients and formulations.

Unit V: Manufacture of and controls on dosage forms: Manufacturing documents, master formula, batch formula records, standard operating procedures, quality audits of manufacturing processes and facilities. In process quality controls on various dosage forms; sterile and non-sterile, standard operating procedures for various operations like cleaning, filling, drying, compression, coating, disinfections, sterilization, membrane filtration etc.,

Unit VI: Regulatory guidelines for packaging materials, test and evaluation of packaging materials, biological test, microbiological test and evaluation of closures.

Books Recommended:

1. Guidelines for Developing National Drug Policies; WHO Publications, 1998.
2. Quality Assurance of Pharmaceuticals–A Compendium of Guidelines and Related Materials, Vol.–1; WHO Publications.
3. GMP by Mehra.
4. How to Practice GMP by P.P. Sharma.
5. Good Manufacturing Practices for Pharmaceuticals-A Plan for Total Quality Control by Sidney H. Willing & James R Stoker. (Drugs & Pharm. Sciences) Vol. 78; Marcel Dekker Inc.
6. Current good manufacturing practices for pharmaceuticals by Manohar A. Potdar

Elective II (IT)

COURSE CODE & TITLE : C305 E -COMMERCE & SOCIAL MEDIA MARKETING

I. Course Description:

E-commerce has moved into the mainstream life that have the market brands and financial muscle required for the long term deployment of e-commerce technologies and methods. As the growth of Internet and the popularity of social media among consumers, firms can now communicate with consumers in a non-traditional fashion.

II. Objectives:

This course aims for the students to

1. Comprehend the marketing strategy applications enabled by the Internet technology,
2. Assess the influence of new media and social networks on consumer behavior and marketing response.
3. Ability to compare the pros and cons of different online platforms such as blogs, online reviews, or online discussion forums, etc.,

III. Course outline:

Unit – I: Introduction to E-commerce, Models & Concepts

What is e-commerce?

- Difference between e-commerce and e-business.
- Features of e-commerce technology
- Types of e-commerce
- Types of business models
- B2C Business Models E

Unit – II: E-Commerce Infrastructure & Marketing

- The Internet today
- The Internet and web
- The Internet Audience & Consumer Behaviour
- Online Consumer behavior model
- Shoppers: Browsers v/s Buyers
- The Revolution in internet marketing technologies
- B2B and B2C e-commerce marketing and branding strategies
- Establishing the customer relationship
- Customer retention
- Net Pricing strategies
- E-Commerce and marketing communications

Unit – III: Ethical, Social and Political Issues in E-Commerce

- Moral dimensions of an internet society
- Responsibility, Accountability and Liability
- Intellectual Property Rights, Copyright, Patents
- E commerce Governance
- Public safety and welfare

Unit – IV: Online Retail Services & Supply Chain Management:

- The online retail sector
- Online service sector
- Advantages and Disadvantages
- B2B e commerce evolution
- Trends in supply chain management

Unit – V: Social Media Marketing:

- Strategic planning with social media
- Social consumers in digital communities
- The four zones of social media
- Measuring the impact of social media
 - * Digital Marketing
 - * Viral (Content) Marketing

Prescribed books:

1. Kenneth Laudon & Carol Traver, E-Commerce: Business. Technology Society; 4th edition, Pearson education.

2. Chaffey, Dave ; E-Business and E-Commerce Management , 3rd edition, Pearson Education, England.
 3. Tuten, Tracy L. and Michael R. Solomon, (2013), Social Media Marketing, Pearson Education, England.
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COURSE CODE & TITEL: C306 E-DATABASE MANAGEMENT SYSTEM

I. Course Description:

Investigates how database management system techniques are used to design, develop, implement and maintain modern database applications in organizations.

II. Course Objectives: The student should develop skills and understanding in:

1. the design methodology for databases and verifying their structural correctness
2. implementing databases and applications software primarily in the relational model
3. using querying languages, primarily SQL, and other database supporting software
4. applying the theory behind various database models and query languages
5. implementing security and integrity policies relating to databases
6. working in group settings to design and implement database projects

III. Course Outline:

Unit I: Introduction: History: Advantages and limitations of RDBMS; Users of RDBMS, Software Modules in RDBMS; Architecture of RDBMS.

Unit II: Modeling Techniques: Different Types of Models, Introduction to ERD.

Unit III: Hierarchical Database, Data Mining for Business Decision Relational Database Introduction; Codd's Rules; Concept of Domain, Tuple, Cardinality; Comparison between HDB-NDB-RDB

Unit IV: Normalization Advantages and disadvantages of Normalization; 1NF-2NF-3NF- rules with examples; Anomalies.

Unit V: SQL commands. Basic Structure, Set Operations, Aggregate Functions, Null Values, Nested Sub queries, Views, Complex Queries, Modification of the Database, Joined Relations, Data-Definition Language, Embedded SQL, Dynamic SQL, Exercises.

Unit VIII: Introduction to object oriented database Concept, Object binding in Oracle - Class, Attribute, Methods, Object type, Definition, Declaring and initializing, Methods, Alter and Drop type.

Unit VI : Introduction to object oriented database Concept, Object binding in Oracle - Class, Attribute, Methods, Object type, Definition, Declaring and initializing, Methods, Alter and Drop type.

Books Recommended:

1. DATABASE System Concepts, Silberschatz , Korth, Sudarshan
2. SQL by Scott Urman

COURSE CODE & TITLE: C307 E-SUPPLY CHAIN MANAGEMENT INFORMATION SYSTEMS

I. Course Description:

This course studies the advanced design of the SCM operations using e-business connectivity and emerging information systems for visibility, event management and optimization from source of raw materials to the ultimate consumer of products and services.

The major SCM processes of procurement, production, logistics, after-sales - service, and order commitment must be integrated and linked with customer relationship management (CRM) processes to create customer value at the lowest total system cost to create economic value added (EVA).

The emergence of global competition is creating a need for instant order commitment, rapid delivery, and mass customization of products and services, which is well beyond the capability of most of today's SCM operations. To meet future these future requirements, SCM operations must increase its competence through the internal integration and external collaboration of processes, organizations and new technologies.

II. Course Objectives:

1. Developing the e-SCM operations plan to support enterprise strategy for core competitiveness in products, cost, service, and agility.
2. Creating intra - enterprise integration of the five major SCM processes: procurement, production, logistics, services, and order commitment.
3. Linking enterprise and channel business application with e-business systems that plan, monitor and manage supply chain operations events.
4. Measuring and evaluating the customer and financial performance of e-SCM operations.

III. Course Outline:

Unit I: Supply chain Information Systems: Supply chain Processes, Advanced Planning Systems (APSS), ERP

Unit II: Development of ERP & SCM: Role of ICT in supply chain Management

Unit III: Supply chain management Software Options

Unit IV: Business Process Reengineering in Supply Chains: Implementation of ICT to improve ISCM (Internal Supply Chain Management)

Unit V: System Selection: ERP System Selection methodology

Unit VI: Supply Chain Software Installation Project management: Benefits of ICT implementation in Supply chain

Unit VII: Challenges in CRM(Customer Relationship Management) and SRM (Supplier Relationship Management)

Books recommended:

1. Introduction to e-Supply Chain Management by David Ross (St. Lucie Press, 2003) ISBN 1-5444 -324-0.
 2. Supply Chain and Logistics by Bauer, Porrier, Lapide and Bermudez (CLM Press, 2001) ISBN 0-9658653-5-5.
 3. Innovations in Supply Chain Management for Information Systems: Novel Approaches (Premier Reference Source) 1st Edition by John Wang
-

Elective II (BIOTECH & BIOINFORMATICS MANAGEMENT)

COURSE CODE & TITLE: C305 F-FUNDAMENTALS OF PRODUCTION PLANNING AND CONTROL FOR BIOTECHNOLOGY

I. Course Description: Biotechnology is a knowledge-intensive industry, it is expected that India will have a competitive advantage and will be able to make full use of this opportunity as has been the case with the IT industry. This course is beneficial to the students who want to make their carrier in biotechnology industry.

II. Course Objectives:

1. To familiarize the students with the fundamentals of production planning and control for biotechnology.

III. Course Outline:

Unit I: Microbial and Fermentation Biotechnology, Technologies used for microbial production of food ingredients, Fermenter, bioreactors, large-scale production, GMP, bioreactor design, facility, scale up
Diagnostics: Conventional methods

Unit II: Design of Food Preservation Equipments General engineering aspects and processing methods, types of equipments and their design: Refrigerator, freezer, dryer, calculation of pasteurization time, time and temperature calculation for HTST sterilization Basic principles of Process design: Design Factors, Design procedure, Codes and Standards, Optimization, Design Loads, Combined Loading in Equipments.

Unit III: Process equipment: Types of pressure vessels, material of construction, selection of corrosion allowance and weld joint efficiency, purging of vessels, Selection and design of various types of heads. Design principles of bioreactors, Geometric configuration, flanges, nozzles, gaskets, supports

Unit IV: Procurement of material: Material for construction of bioreactors and selection criteria, Procurement process, Water system- air system layout. Master formula designing.
Unit V: Quality control management in Biotechnology, General introduction about drugs manufacturing process and policies, Standard operating procedures, Quality control and quality assurance.

Books recommended:

1. Process Equipment Design, M. V. Joshi. Mc Millan India.
2. Process Equipment Design. S. D. Dawande, Dennet and Company.
3. Process equipment design by L.E. Brownell and E. Young, John Wiley, New York, 1963.

COURSE CODE & TITLE: C306 F-ETHICS, BIOSAFETY AND HAZARD MANAGEMENT IN BIOTECHNOLOGY

I Course Description: From the promise of a world without hunger to the possibility to choosing our children's traits, genetic engineering is revolutionizing agriculture, industry, and medicine in the 21st century, transforming our food supply and changing the way we think about health and disease. This course examines biotechnology and genetic engineering in historical, social, political, and ethical contexts.

II Course Objectives:

1. To gain familiarity with bioethical approaches and learn to apply them to the issues raised by biotech.
2. To understand what is meant by –The social construction of technology

III Course Outline:

Unit I: Bioethics and its history: Ethical Principles and Guidelines for the Protection of Human Subjects of Research. Bio-safety during industrial production

Unit II: Branches of Biotechnology: Red biotechnology, Concerns/Risks associated with red, biotechnology Green biotechnology, Concerns/Risks associated with green, biotechnology, White biotechnology, Blue biotechnology

Unit III: Concerns associated with biotechnology: Risks to human/animal health, Concerns due to antibiotic resistance genes, Food safety, Risks to environment, Horizontal gene transfer (HGT), Super weeds due to herbicide resistance genes, Impact on soil fertility, Biosafety Guidelines and Regulations

Unit IV: Impacts on biodiversity: General concerns, Definition of bio-safety, Principles of bio-safety, Guidelines for bio-safety, Risk analysis, Risk assessment, Risk management, Risk Communication, Containment, Physical containment, Biological containment, Gene containment, Bio-safety Levels (BSLs, Regulations for bio-safety, National and International regulations, Legal and Socio-economic Impacts of Biotechnology

Unit V: Hazardous and Solid Waste Management: Xenobiotic compounds, recalcitrance; Hazardous Waste Management, Sources & Classification, physicochemical properties, Hazardous Waste Control & Treatment; Concept of Waste minimization: benefits and technologies to hazardous waste reduction; Hazardous Waste Management & Handling rules, Hospital Waste Management, Good Laboratory Practice (GLP) and Good Manufacturing Practice (GMP)

Books recommended:

1. Bioethics and Biosafety , 1/e- M K Sateesh- I.K. International Publication house Pvt. Ltd.
2. Biosafety and Bioethics Varsha Gupta, Manjistha Sengupta, Jaya Prakash, Baishnab Charan Tripathy- Springer publications

COURSE CODE & TITLE: C307 F-BIOTECHNOLOGY PLANT MANAGEMENT

I. Course Description: It seeks to provide education and training, empower students with technical skill-set, create capacities and build career opportunities in three key domains of biotechnology namely: Research and development, Science education and Policy, regulations and management.

II. Course Objectives:

1. To familiarize the students with the working of Biotechnology plant management in Biotechnology sector.
2. To advance education and research in Plant Biotechnology and explore sustainable solutions for agriculture, environment and energy sectors.

III. Course Outline:

Unit I: Laboratory/ Factory safety Parameters. Bio safety parameters. Choice of biological materials and properties, Scale up aspects.

Unit II: Physical components: Equipments. Electrical. Airflow, Building – GMP

Unit III: Food industry plant management, Maintenance of equipments, Various Unit operations in Food industry

Unit IV: Fermentation Technology, Microbial Products- Environmental location aspects Design of buildings.

Unit V: Instruments, Process safety- GMP. Regulatory clearances. Animal and human cell based product Environmental location. Design of buildings.

Unit VI: Plant based products- Environmental location. Design of buildings. Instruments, process safety-GMP. Regulatory Clearances.

Books recommended:

1. Biotechnology: Plant Health Management Hardcover – by Neeta Sharma (Author), H. Singh
2. Handbook of Environmental Biotechnology- 2010th Edition- by Lawrence K. Wang
3. Plant Biotechnology and its Applications in Tissue Culture , 1/eAshwani Kumar & Shikha Roy

Elective II (IBM)

C305 G-INTERNATIONAL TRADE, WTO & TRADE POLICY ISSUES

I: Course Description: The purpose of the trade policy courses is to ensure that participants are thoroughly exposed to all WTO-related issues, and develop practical skills as well as an extensive network of contacts. They also serve as a general introduction for those who may become specialists at a later stage.

II. Course Objectives:

1. To develop a good understanding of all aspects of the WTO, including the Agreements (transfer of knowledge);
 2. To improve analytical and negotiating skills (improvement of skills);
 3. To learn to use effectively the relevant information and documentation on trade-related issues (autonomy);
 4. To strengthen capacity to work in teams and in an international environment (team work);
1. To establish and/or strengthen a network of contacts with each other and the trainers/experts (network).

III. Course Outline:

Unit I: International Business Environment – Globalization – Forces, Meaning, dimensions and stages in Globalization – Introduction to theories of International Trade by Adam Smith, Ricardo and Ohlin & Heckler – Trading Environment of International Trade – Tariff and Non-tariff Barriers – Trade Blocks – Rise of new economies like Japan, South East Asia and China as compared to India.

Unit II: Bilateral and Multilateral Trade Laws – General Agreement on Trade and Tariffs, (GATT), World Trade Organization – IPR, TRIPS, TRIMS, GATS – Ministerial Conferences.

Unit III: EXPORT – IMPORT POLICY 2002-2007 : Procedures and Documentation, GSP Rules of Origin, ECGC, Exim Bank / Lines of Credit. Documents prescribed by some importing countries , Trade Fair Authority Exhibitions / International Exhibition / FIEO/ ITPO L/C, B/L etc. Costing, QBAL/ VBAL, DEPB.

Unit IV: Selected Trade Developments and Issues

Unit V: Case Studies:

Cases on theories of International Trade

Cases on WTO

Cases on International Marketing

Books Recommended:-

1. International Business Environment – Sundaram and Black

2. International Business Environment – Bhalla and Raju

3. International Financial Management – P.G.Apte

4. International Business – Francis Cherulinam

5. Import Management in a developing economy

6. Import Procurement Planning

a. Registration of factories with concerned authorities DGTD, SSE, in relation to import of Capital Goods

b. Project Import/ EPCG

7. Identification, Selection and Evaluation of Suppliers

8. Purchase Contract, Terms of Delivery and Payment.

COURSE CODE & TITEL: C306G-INTELLECTUAL PROPERTY RIGHTS

I: Course Description:

The course is tailored to meet industry requirements as well as the needs of aspiring professionals. It includes up-to-date education in US, European and Indian Patent and IP laws and procedures and is designed and delivered by outstanding professionals with rich teaching, research, industry and consulting experience. The course is designed with a view to create IPR consciousness; and familiarize the learners about the documentation and administrative procedures relating to IPR in India.

II. Course Objectives:

1. Intellectual Property Law has assumed a great importance in recent times as a result of the recognition that –knowledge is property. The creations of the human brain as IP are required to be understood and protected.
2. It encompassing all relevant IP legislations in India with a view to understand and adjust with changing needs of the society because creative work is useful to society and law relating to innovation/creativity i.e.
3. Intellectual Property is one of the fastest growing subjects all over the globe because of its significance and importance in the present era. Disseminate information on national and international IPR issues.

III. Course Outline:

Unit I: Intellectual Property: Introduction, Meaning, History, Concepts and Types.

- International Treaties and Conventions for Protection of IPs
- Role of Intellectual Property in Growth, Development, Trade and Commerce
- Various types of Intellectual Property Rights: Trademarks Basic, Copyright Basics, Trade Secrets, Geographical Indications

Unit II: Introduction of WTO's intellectual Property (TRIPS): Intellectual Property: protection and enforcement, Origins: into the rule-based trade system, Basic principles, National treatment, MFN, and balanced Protection

Unit III: Economic Concepts relevant to intellectual Property Rights: Trade secret law

Unit IV: Legal Aspects: Protection & Maintenance of IP

- Trademark: Statutes, Filing Procedure
- Copyright: Statutes, Filing Procedure
- Trade secrets: Protection
- Patent: Statutes, Filing Procedure

Unit V: Technical Aspects

- Patent Searches (Patentability searches)
- Patent Analytic (FTO, Invalidity, Landscaping, etc.)

- Claims and Specification Drafting
- Patent Prosecution

Unit VI: Management Aspects

- IP Valuation
- IP Portfolio Audit and Management
- Commercialization and issues related to technology transfer

Unit VII: Case Studies: Related to WTO and Intellectual Property Rights.

Books Recommended:

1. Cornish William – Intellectual Property.
 2. P. Narayanan – Intellectual Property Law.
 3. Rahul Matthan – The law relating to Computers and the Internet.
 4. Copinger & Skine James – Copyright.
 5. Pal P. – Intellectual Property Rights in India.
 6. Unni – Trade Mark, Design and Cyber Property Rights.
 7. Rodney Ryder – Intellectual Property and the Internet.
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COURSE CODE & TITLE: C307G-INTERNATIONAL BANKING

I. Course Description:

The course provides an outline of international banking and deals with recent developments and a solid understanding of international banking. Issues such as the historical evolution and foundation of international banking and its management, risk management, financial crises, commercial banking, investment banking, and regulations, supervision and crashes of international banking will be discussed.

II. Course Objectives:

1. To understand how international banks operate in global markets.
2. To understand regulatory framework governing International Banking operations
3. To understand the working of International Credit Rating Agency

III. Course Outline

Unit I: Introduction to International Banking

Meaning of International Bank, The working of Medici Bank in Renaissance Europe, Globalisation of banking, Structuring overseas operations, Commercial banking vs Investment Banking

Unit II: Legal And Regulatory Framework

Regulatory Framework, BASEL Norms, International law, choice of law, conflict of laws, jurisdictional issues, Exchange management and controls, International loan agreements, covenants and clauses , Country risk and bank risk management, International debt management, Anti Money laundering laws.

Unit III: Global Banking System

American Banking System: Organisation, structure and functions

Indian Banking System: Organisation, structure and functions

German Banking System: Deutsche Bundes Bank _German Central Bank‘ – Organisation, structure and functions.

Unit IV: International Corporate Finance

Fundamental principles of lending MNC, documentation and monitoring of

Corporate Finance, International credit rating agencies and global capital markets

Raising resources and its deployment, ECBs / FCNRs, Syndicated Loans, Role of FIIs, FDIs and EXIM Bank

Unit V: International Banking and Development

Bank lending in developing countries

Microfinance

Bank lending and sustainability (the Equator Principles)
The role of public institutions (IMF, WB, IDB)

Books Recommended:

1. Andrew W. Mullineux (edited), -Handbook of International Banking II, Edgar El-gar Publishing and J. Hughes,
2. S. MacDonald, -International Banking: Text and Cases, Addison-Wesley Publishing
3. B. Casu,-Introduction to BankingII, Prentice Hall

Elective II (Hospital & Healthcare Management)

COURSE CODE & TITLE: C305 H-COMMUNITY HEALTH MANAGEMENT

I. Course Description:

Community health is a fundamental course in the principles of personal health: nutrition, mental health, drugs, exercise, sleep and rest. Community health also explores the principles of community health sanitation, community services and public health agencies.

II. Course Objectives:

- To understand Modern health issues, Health care organizations structure
- To study Health statistics and also understand Ethics in health care
- To know Health care policy

III. Course Outline:

Unit I: Contribution to Community Health: Organizations that contribute to community health, communities measure disease, injury and death

Unit II: Control of communicable and non-communicable diseases: communities organize and solve health problems, Community health in schools, Health needs of mothers, infants and children

Unit III: Health needs of special populations: Community mental health, Abuse of alcohol, tobacco, and other drugs

Unit IV: Health care delivery system

Unit V: Environmental health problems

Unit VI: Intentional and unintentional injuries and Occupational health and safety

Books Recommended:

1. Family Health Care Nursing: Theory, Practice, and Research by Joanna Rowe Kaakinen
2. Foundations of Nursing in the Community: Community-Oriented Practice, 4e by Marcia Stanhope and Jeanette Lancaster
3. An Introduction to Community & Public Health by James F. McKenzie and Robert R. Pinger

C306 H-LAWS RELATED TO HOSPITAL & MEDICAL SERVICES

I. Course Description:

This course examines the law relating to the employment relationship. It focuses on the statutory and common law regulations of individual employment contracts. Some consideration will also be given to the role of unions and collective industrial action. The course makes extensive use of outside experts. Course is relevant for management- or policy-oriented students who will be working in, or interrelating with, public and private (both for-profit and not-for-profit) health insurance plans and organized delivery systems such as HMOs and hospital/physician integrated delivery systems. Course is also relevant to students who will be researching and analyzing these systems.

II. Course Objectives:

- To understand the laws related to Hospitals in India.
- To study various Health related issues and HR related laws as well as governance done by India Government.

III. Course Outline:

Unit I: Introduction & Legal Procedure: Court, Affidavit, Evidence, complaint, investigation, Oath, Offence, warrant, Summons. Medico Legal Aspects of Emergency Services. Rights & Responsibilities of Medical Person

Unit II: Inquest: Police Inquest, Magistrate's Inquest. Criminal Courts in India & Their powers

Unit III: General Important Legal Knowledge Pertaining to IPC, CRPC, Civil PC, Evidence Act Hippocratic Oath, Declaration of Geneva

Unit IV: Laws related to medical Procedures:

- Medical termination of Pregnancy Act 1971 (MTP Act)
- Prenatal diagnostic techniques, regulations & prevention of misuse Act 1994
- Code of Medical Ethics
- Medical negligence & Compensation, Illustrative cases of medical Negligence in India

Unit V: Organisational & procedural Laws:

- Indian Contract Act
- Nursing Home-Registration Act

Unit VI: Labour Laws applicable to a hospital

- Indian Trade Union Act 1926/Industrial Dispute Act 1947
- The Workmen's Compensation Act
- The Industrial Employment (standing orders) Act 1946
- Maternity Benefit Act
- Employee Provident
- Payment of Wages Act

Suggested readings:

1. Parikh's Text Book of Medical Jurisprudence & Toxicology- By Dr. C.K. Parikh-CBS Publication
2. Medical Negligence & Compensation – By Jagdish Singh- Bharat Law, Jaipur
3. Medico-Legal Aid at Hospitals & Doctors with Consumer Protection aw- By M.S. Pandit & Shobha Pandit-Pandit Publications

COURSE CODE & TITLE: C307 H-MANAGEMENT OF HOSPITAL INFORMATION SYSTEM

I. Course Description: To make the learner to understand MIS as a managerial decision making tool and to know the sources and compiling of MIS.

II. Course Objectives:

1. To train Medical & Non-Medical Graduates in the specialty of the Hospital Administration to meet the growing demand of Hospital Administrators at the middle level of management.
2. To enable such persons to take up consultancy in the Hospital Planning.
3. To enable them to take up higher courses of learning /specialization in the field of Hospital Management in due course of time.

III. Course Outline:

UNIT-1: Introduction to Management Information Systems: Decision Making Process Techniques – Major Trends in Technology in Decision Making – Computerized data processing – Decision Support Systems – Expert System – Executive Information System – Health Management Information System.

UNIT-2: Health Records: The World of Informatics The Future of healthcare technology - Functions of the health record – Changing functions of the patients record – privacy and confidentiality and Law – Advantages of the paper record – Disadvantages of the paper record – Optically scanned records – The Electronic health record – Automating the paper record – Advantages of the HER – Disadvantages of the HER – Bedside or point-of-care systems – Human factors and the HER – Roadblocks and challenges to HER implementation.

UNIT-3: Telemedicine: Telehealth – Historical perspectives – Types of Technology – Clinical initiatives – Administrative initiatives – Advantages and Barriers of telehealth – Future trends – Summary – The Future of informatics; Globalization of Information. Technology – Electronic communication – Knowledge management – Genomics – Advances in public health – Speech recognition – Wireless computing – Security – Telehealth – Informatics Education – Barriers to Information Technology implementation.

UNIT-4: Software Applications in Health Care: Awareness on the application of computer software packages in various functions of hospital – Internet and Intranet and their application in healthcare.

UNIT-5: Practicals of Software Applications: One way ANOVA using Statistical Software –

Suggest Practicals: Mail Merge using MS Word Profit Analysis using Excel Vendor Analysis using Excel Lead Time Analysis using Excel Electricity billing using Excel Grade Analysis using Excel Budget Consumption using Excel Correlation using Statistical Software Regression

using Statistical Software Chi-square using Statistical Software One Sample T Test using
Statistical Software Two Sample T Test using Statistical Software Test of Significant difference
– Independent Samples Test of significant difference –

Reference Books:

1. Green. E. Paul. Danald S. Tull, Gerald Albaum, Research for Marketing Decisions, Prentice Hall, New Delhi, 1996.
2. Ghosal, A., Elements of Operations Research, Hindustan Publishing Corporation, New Delhi, 1969.

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Elective II (OPERATIONS AND SUPPLY CHAIN MANAGEMENT)

PAPER – I OPERATIONS RESEARCH & MANAGEMENT Paper Code: C305I

Objectives:

1. To familiarize the Operations Management concepts
2. To introduce various optimization techniques with managerial perspective
3. To facilitate the use of Operations Research techniques in managerial decisions.

UNIT –I Introduction to Operations Management - Process Planning - Plant Location - Plant Lay out - Introduction to Production Planning.

UNIT –II Stages of Development of Operations Research- Applications of Operations Research- Limitations of Operations Research- Introduction to Linear Programming- Graphical Method- Simplex Method - Duality.

UNIT-III Transportation Problem- Assignment Problem - Inventory Control - Introduction to Inventory Management - Basic Deterministic Models - Purchase Models - Manufacturing Models with and without Shortages.

UNIT-IV Shortest Path Problem - Minimum Spanning Tree Problem - CPM/PERT - Crashing of a Project Network.

UNIT- V Game Theory- Two Person Zero-sum Games -Graphical Solution of (2 x n) and (m x 2) Games - LP Approach to Game Theory - Goal programming - Formulations - Introduction to Queuing Theory - Basic Waiting Line Models: (M/M/1):(GD/a/a), (M/M/C):GD/a/a).

Unit VI: Operations Strategy & Competitiveness: World of operations in 2020 – Operations Management in the organizational chart - Operations as a service – Historical role of Operations Management – Current perspectives. Behavioral Operations Management. Operations Strategy and Competitive dimensions – Operations and Corporate Strategy – Strategic Fit – A framework for Operations Strategy in Manufacturing, Services.

[Note: Distribution of Questions between Problems and Theory of this paper must be 60: 40 i.e,

Problem Questions: 60 % & Theory Questions : 40 %]

REFERENCES

1. Operations Strategy -- David Walters – Palgrave Mcmillan
2. Kanishka Bedi, PRODUCTION & OPERATIONS MANAGEMENT, Oxford, NewDelhi, 2007
3. Panneerselvam, R, OPERATIONS RESEARCH, Prentice-Hall of India, New Delhi, 2002.
4. G.Srinivasan, OPERATIONS RESEARCH, PHI Learning, NewDelhi,2010
5. Tulsian & Pandey, QUANTITATIVE TECHNIQUES, Pearson, NewDelhi, 2002
6. Vohra, QUANTATIVE TECHNIQUES IN MANAGEMENT, Tata McGrawHill, NewDelhi, 2010

PAPER - 2 LOGISTICS MANAGEMENT Paper Code: C306I

Objectives :

1. To introduce process and functions of logistics system
2. To understand the major building blocks, functions, business process
3. To performance metrics and decision making in supply chain network.
4. To provide an insight into the role of Internet Technologies in Logistics Management

Unit I Introduction to logistics management: Definition, scope, functions, objectives - Integrated logistics management, role of logistics in the Supply chain - Logistics & customer service, Role of logistics in competitive strategy, Logistics organization & performance measurement, Basics of ERP –SAP - ORACLE

Unit II Inventory planning: inventory costs, classifying inventory, Nature & importance of warehousing, types of warehouses, warehousing functions, warehouse layout & design. Material handling - objectives, guidelines & principles, selection of material handling equipments.

Packaging-role of packaging, packaging materials, consumer & industrial packaging, material handling efficiency

Unit III Transportation: Role of transportation in logistics, transportation selection decision, basic modes of transportation- Rail, Road, Water, Air, Pipeline- characteristics of different modes- transport economics - Inter modal operations

Unit IV Containerization: Concept, types, benefits, Types of carriers- indirect & special carriers, Role of intermediaries- shipping agents, brokers- freight management- route planning Role of ports, ICDs, CONCOR - Global shipping options

Unit V Reverse logistics: Scope, design, e-logistics- logistics information system-application of IT in logistics- automatic identification technologies- bar coding, RFID, Logistics outsourcing- 3PL & 4PL, Global logistics- operational & strategic issues, Pricing and revenue management

References:

1. Ailawadi C Sathish & Rakesh Singh, LOGISTICS MANAGEMENT, Prentice Hall,

India, 2005

2. Agrawal D K, TEXTBOOK OF LOGISTICS & SUPPLY CHAIN MANAGEMENT ,
Macmillan India Ltd, 2003
3. Coyle et al., THE MANAGEMENT OF BUSINESS LOGISTICS, Thomson Learning,
7th edition, 2004
4. Bowersox Donald J, LOGISTICAL MANAGEMENT- THE INTEGRATED SUPPLY
CHAIN PROCESS, Tata McGraw Hill, 2000

PAPER - 3 SUPPLY CHAIN MANAGEMENT Paper Code: C307I

Objectives:

1. To introduce process and functions of supply chain management.
2. Appreciate the design and network in supply chain management
3. To understand the role of coordination in supply chain management

Unit I Introduction to Supply Chain Management- Supply chain – objectives – importance – decision phases – process view – competitive and supply chain strategies – achieving strategic fit – supply chain drivers – obstacles – framework – facilities – inventory – transportation – information – sourcing – pricing. Concept of Supply Chain Visibility.

Unit II Designing the Supply Chain Network- Designing the distribution network – role of distribution – factors influencing distribution – design options – e-business and its impact – distribution networks in practice – network design in the supply chain – role of network – factors affecting the network design decisions – modeling for supply chain.

Unit III Planning Demand and Supply- Role of forecasting – demand forecasting – approaches – role of IT. Planning and Managing Inventories- Safety inventory and its appropriate level – impact of supply uncertainty, aggregation and replenishment policies.

Unit IV Strategic Approach in Managing Logistics Supply Chain : Logistics Outsourcing- Need / Benefits of Logistics Outsourcing, Clearing & Forwarding Agent –C& F Agent, Third –Party Logistics (3PL), Fourth – Party Logistics (4PL), Procurement – Manufacturing-Logistical Interface, Quality tool kit for managers, Sales and Operation Planning

Unit V Coordination in a Supply Chain- Lack of supply chain coordination and the Bullwhip effect – obstacle to coordination – managerial levels – building partnerships and trust – continuous replenishment and vendor-managed inventories – collaborative planning, forecasting and replenishment.

Unit VI: Information Technology framework: Information System Functionality-Comprehensive Information System Integration-Communication Technology- Rationale For ERP Implementation-ERP System Design-Supply Chain Information System Design.

References

1. Sunil Chopra and Peter Meindl, SUPPLY CHAIN MANAGEMENT – STRATEGY, PLANNING AND OPERATION, PHI, 4th Edition, 2010.
2. Wisner, Keong Leong and Keah-Choon Tan, PRINCIPLES OF SUPPLY CHAIN MANAGEMENT A BALANCED APPROACH, Thomson Press, 2005.
3. Coyle, Bardi, Longley, THE MANAGEMENT OF BUSINESS LOGISTICS – A SUPPLY CHAIN PERSPECTIVE, Thomson Press, 2006.
4. Gattorna J L and Walters D W, MANAGING THE SUPPLY CHAIN – A STRATEGIC PERSPECTIVE, Palgrave 1996.
5. Sahay B S, SUPPLY CHAIN MANAGEMENT IN THE TWENTY-FIRST CENTURY, Macmillan 2000.
6. Jeremy F Shapiro, MODELING THE SUPPLY CHAIN, Thomson duxbury 2002.
7. Mohanty R P, Deshmukh S G, SUPPLY CHAIN MANAGEMENT, THEORIES AND PRACTICES, biztantra, 200

COURSE CODE & TITLE: C 305 J - MARKETING ANALYTICS

I. Course Description:

This course aims to cover topics in marketing analytics, an area that remains the decision enabler of utmost importance for many of the offline and online companies' marketing and merchandising divisions. The objective of the course is to give students a general understanding of this vital area in marketing while demonstrating critical application areas in online and offline marketing channels.

II. Objectives:

1. To sensitize students to typical data-driven marketing problems.
2. To develop students' skills in collecting and preparing data.
3. To introduce students to marketing research methods that are typically used in marketing management
4. To develop students' hands-on competence in marketing analytics.

III. Course Outline:

Unit I: Introduction: Statistical Foundations of Marketing, Marketing Analytics as an enabler of Marketing Strategy, Descriptive Statistics, Distributions, General Linear Models, Optimization

Unit II: Product Management: Pricing and Revenue Management, Point-of-sale Data, Deciding on the -Right| Pricing Approach, Implementing tools to support pricing strategy, Managing the prices to meet revenue goals,

Assortment Optimization-Panel and Point-of-Sale data, Customer meets product, A retailer's nightmare: shelf-space optimization, Site-to-store, Product meets customer

Unit III: Marketing-Mix Allocation: Conjoint Analysis, **Digital Marketing**-Paid Search Advertising, Mobile Marketing and Spatial Regression, Future of Marketing Analytics

Unit IV: Customer Management: Customer Life time value- Customer Profits and Retention, Cross-Selling and Optimization, Loyalty Data, What is a customer's lifetime? How can we predict it?Market Basket Analysis - Market-Basket Data, Product Affinities

Unit V: Channel Analytics: Web Analytics- Online Data, Managing the online real estate, The -cloud| Marketing Budget Optimization Across Channels- Search Engine Marketing versus Search Engine Optimization, Managing the Delivery of Analytics Projects

IV. Prescribed books:

1. Marketing Analytics : Data Driven Techniques with Microsoft Excel- Wayne L. Winston
2. R for Marketing Research and Analytics- Chris Chapman and Elea McDonnell Feit
3. Cutting-edge Marketing Analytics: Real- Paul Farris, Rajkumar Venkatesan, and Ronald T. Wilcox

SYLLABUS MBA III SEM**COURSE CODE & TITLE: C 306 J - FINANCIAL ANALYTICS****I. Course Description:**

With the upsurge in data-driven insights and analytics, the financial industry has shown an increasing demand for advanced machine learning, data visualization and cloud-based data-driven solutions. In this environment, there is a strong need for individuals with profound knowledge in advanced finance, analytical techniques and computing technology who can design innovative solutions for real financial problems.

II. Objectives:

1. To gain actionable insight into financial and business performance.
2. To develop customer insight and sell the right product to the right person at the right time.
3. To build models to gain customer insight and combine structured and unstructured data to work efficiently with large data volumes.

III. Course Outline:

Unit I: Introduction to Financial Modeling: Mathematical Finance- Options, Futures, and Other Derivatives Stochastic Processes Derivative Asset Pricing Models

Unit II: Introduction to Financial Portfolio and Risk Management: Fixed Income Analysis Portfolio Optimization and Capital Asset Pricing Analysis and Management.

Unit III: Financial Management: Financial Planning and Control Capital Budgeting Dividend and Growth Strategies

Unit IV: Financial Econometrics: Time Series, Vector Error Correction, and Vector Autoregressive Models ARCH/GARCH Models Forecasting

Unit V: Numerical Methods: Finite Difference Methods Multi-Step, Iterative, and Adaptive Methods Systems, Stability, and Convergence

IV. Prescribed books:

1. Financial Analytics with R: Mark J. Bennett (Author), Dirk L. Hugen
2. Credit Risk Analytics: Measurement Techniques, Applications, and Examples in SAS- by Bart Baesens and Daniel Roesch

SYLLABUS MBA III SEM

COURSE CODE & TITLE: C 307 J - HR ANALYTICS

I. Course Description:

The Course is designed for managers, HR generalists, specialists, and other professionals who need to inform decisions using HR data.

II. Objectives:

1. Give examples of the value analytics brings to human resources (HR)
2. Generate a list of HR benchmarks and metrics relevant to an organization's mission or goals
3. Apply best practices for using HR analytics to support making data-driven decisions
4. Demonstrate use of the Analytics Process Model to analyze HR data

III. Course Outline:

Unit I: The Role of Analytics in HR: a Brief History of the Evolution of Analytics, Why Is Analytics Important to the HR Field? HR Analytics Defined, HR's Value Proposition

Unit II: An Overview of HR Regulations and Reporting Requirements: HR Policies, Procedures, and Guidelines, Key Regulations and Reporting Requirements, Metrics, Benchmarks, and Other Indicators, Connecting Missions or Goals to HR Benchmarks and Metrics

Unit III: Analytics Tools and Techniques for HR Professionals: Key Systems of Record for HR Data, Software Tools, Excel Quantitative Techniques, Excel Visualization, Excel Analytic Techniques. **Unit IV: Using the Analytics Process Model:** The Analytics Process Model and Its Phases, Applying the Analytics Process Model

Unit V: Effectively Presenting HR Data: Effectively Presenting HR Data

IV. Prescribed books:

1. The New HR Analytics- Jac Fitz-enz
2. HR Analytics: The What, Why and How.. Tracey Smith

C 308 PERSONALITY DEVELOPMENT LAB & TRAINING FOR FACING INTERVIEW

Unit 1: Personality: Physical Appearance; Body Language, Voice; communication Style; Content of communication; enriched Communication through sensory specific language.

Business style and professional image: Dress codes, guidelines For Appropriate Business attire- Differentiate among the dressy casual, semiformal, formal and black tie dress code , grooming for success, Multi-cultural dressing.

Unit 2: Impression Management: Impression Formation, Tactics, the self presentation Motive, the compass Qualities, first and lasting impressions, Magic Pills: Toxic traits, the social context: norms and Roles, the target`s values, actions; The environmental success; changing from the Outside-in, current social image, instrumental complementarily, the private self, worrying about impressions. Creating rapport, Powerful Persuasion strategies.

Unit 3: Assertiveness Training: concept of Assertiveness, Components of assertive behavior, rational emotive assertiveness training, handling fear, handling anger, handling depression, assertive behavior skills, how to handle putdowns, assertiveness on the job, assertiveness in Interpersonal relations, assertiveness in everyday commercial situations, assertiveness and others.

Unit 4: Business Etiquette: The ABC`s Etiquette, developing a culture of excellence, the principles of exceptional work behavior, the role of good manners in business, enduring words

Making introductions and greeting people: Greeting components, the protocol of shaking hands, introductions, introductory scenarios, Addressing individuals.

Meeting and Board room protocol: guidelines for planning meeting, before the meeting on the day of the meeting, guidelines for attending a meeting- for the chairperson, for attendees, for presenters

Multi-cultural Etiquette: Examples of cultural insensitivity, cultural differences and their effects on Business Etiquette.

Unit 5: Stress management: Introduction to stress, causes of stress, impact management stress, managing stress, Conflict management: introduction to conflict, causes of conflict, management managing conflict Time management: Time as a resource, identify Important Time management wasters, individual time management styles, Techniques for better time management

SEMESTER IV

COURSE CODE & TITLE : C401 BUSINESS ETHICS & CORPORATE GOVERNANCE & SOCIAL RESPONSIBILITY

I. Course Description:

The core of a successful management lies in its Clarity of Vision, Plan of Action and more importantly Execution of the Plan of Action – the real gamut of operations as it were, and it is here that the importance of Corporate Governance and Ethics comes into being. The purpose of this course is to strengthen the ability to anticipate, critically analyze, appropriately respond to, and provide leadership regarding, ethical issues students will confront as employees and eventually as managers of people, projects, and enterprises.

II. Course Objectives:

1. Apply general ethical principles to particular cases and practices in business.
2. Think independently and rationally about contemporary moral problems.
3. Recognize the complexity of problems in practical ethics.
4. Demonstrate how general concepts of governance apply in a situation or given circumstance.

III. Course Outline:

UNIT I: Business Ethics: An Overview

1. What is Business Ethics?
2. Principles of Personal and Professional Ethics
3. Entrepreneur Vs Professional Managers
4. Values and Ethics in Business
5. Changing Business environment and Ethical Challenges

UNIT II: Ethical Dilemmas and Ethical Decision-making

1. What is Ethical Dilemma?
2. How Ethical Dilemmas in Business affect Stakeholders?
3. How to resolve Ethical Dilemmas?
4. The process of making good ethical decisions
5. Personal Values and Ethical decision making

UNIT III: Globalization and Business Ethics

1. International Business issues
2. Key Global issues for Business
3. Corporate Governance is a prerequisite for Globalization
4. Global Compact
5. Ethics and Indian Business
6. Whistle Blowing

7. Indian Ethos
8. Corruption in India

UNIT IV: Corporate Governance and Corporate Social Responsibility

1. Corporate Governance and its significance for developing countries
2. Major Issues and thrust areas of Corporate Governance
3. Indian Model of Corporate Governance
4. CSR as a Business Strategy for Sustainable Development
5. Environmental Ethics
6. Role of various agencies in ensuring Ethics in Corporations.

Unit V: Ethics & Functional areas of Business Management

1. Marketing Ethics
2. Ethical issues in Human Resource Management
3. Ethical issues in Financial Management

Prescribed Textbook:

Business Ethics in India -An Indian Perspective by A.C.Fernando, Pearson Publication Second Edition

(A) Marketing Specialization

Reference Books:

1. Corporate Governance in India-An evaluation by S.C.Das, PHI Eastern Economy Edition
2. Business Ethics-An Indian Perspective by Ronald Francis and Mukti Mishra,TMG

COURSE CODE & TITLE : C 402 A- RETAIL MANAGEMENT

I. Course Description: This course examines the important and growing role retail marketing plays in consumer and organizational target markets. The emerging issues in retail marketing and customer service strategies are incorporated in the course.

II. Course Objectives:

1. Explain the unique challenges of retail marketing.
2. Describe how customer relationship marketing (CRM), including retention strategies, creates an environment that achieves excellence in customer service

III. Course Outline:

Unit – I: Introduction to the world of retailing

Meaning of retailing, Social & Economic significance of retailing, Opportunities in retailing, Types of retailers, Theory of retailing: Wheel of retailing, the Accordian, Emerging trends in retailing, The retail scenario in India, Multichannel Retailing, customer buying behaviour.

Unit – II: Retailing Strategy

Retail Strategy: Definition, Building a sustainable competitive advantage, Growth strategies, Retail locations, Retail site location, Retail organization & HRM, Gaining competitive advantage through CRM, Retail communication mix : Methods of communicating with customers.

Unit – III: E-Tailing

Introduction, Features of e-tailing, Advantages & Disadvantages, Scope of e-tailing, Growth drivers to e-tailing, E-Tailing strategies, Retailing V/s E-Tailing.

Unit – IV: Merchandise & Store Management

Merchandise management process, Sales forecasting, developing an assortment plan, store management : Responsibilities, store layout & design, space management, visual merchandising.

Unit-V: Customer Service & Supply Chain Management

Customer service strategies, Gap Model: standard and delivery, service recovery, Supply Chain Management & information system.

Books Recommended:

1. Retailing Management – Swapna Pradhan
2. Retail Management – Gibson Vedamani
3. Physical Distribution & Logistics Management – Dr. Subhash Bhawe
4. Channel Management & Retail Management – Meenal Dhotre

COURSE CODE & TITLE : C 403 A- SERVICES MARKETING

Course Description:

This course examines the important and growing role services marketing plays in consumer and organizational target markets. Discussing current issues in services marketing and customer service strategies, this course focuses on effective customer relationship management; key service delivery elements; and service recovery strategies that lead to the successful implementation of a customer focus in service-based businesses.

II. Course Objectives:

1. Explain the unique challenges of services marketing, including the elements of product, price, place, promotion, processes, physical evidence, and people.
2. Describe how customer relationship marketing (CRM), including retention strategies, creates an environment that achieves excellence in customer service.

Course outline:

Unit I: Introduction to Services:

Nature of Services;

Characteristics of Services – Intangibility, Inconsistency, Inseparability and Inventory;
Search, experience and credence attributes,
Classification of Services; Consumer versus Industrial Services.

Unit II: Global and Indian Scenario in services sector:

Importance of Services Marketing;
Every business a service business;
Service as key differentiator for manufacturing industries.

Unit III: Services Marketing Mix:

Introduction to the 7 Ps of Services Marketing Mix;
Product-Service Continuum;
Standalone service products;
Service products bundled with tangible products; Service Life Cycle.

Unit IV: Distribution: Place:

Distribution Strategies for Services;
Challenges in distribution of Services;
Digital and Social Media Marketing
Role of Internet in distribution of Services.

Unit V: People: The key role of service employees in a service business; Services marketing triangle; Service profit chain, Concept of Service encounter – Moment of Truth; Training and development of employees; Motivation and empowerment.

Unit VI: Physical evidence: Nature of physical evidence; Importance of physical evidence in services; Tangibilizing through physical evidence; Service scapes.

Unit VII: Process:

Service as a process & as a system - Different process aspects and managerial challenges
Strategies for managing inconsistency – Customer role in services - Customers as ‘co-producers’; Self Service Technologies, – Customer Service in Service Marketing

Prescribed books:

1. Services Marketing - Zeithaml, Bitner, Gremler & Pandit, TMGH, 4th ed.
2. Services Marketing - Christopher Lovelock
3. Services Marketing - Rampal & Gupta
4. Essence of Services Marketing - Ardian Payne

COURSE CODE & TITLE : C 404 A- B 2 B MARKETING

I. Course Description: Business-to-business (B2B) refers to a situation where one business makes a commercial transaction with another. This Course typically covers how a business is sourcing materials for their production process.

II. Course Objectives:

1. To study Nature of B2B Marketing
2. To study Factors influencing Organizational Buying Behaviour

III. Course Outline:

Unit I: Nature of B2B Marketing

B2B Marketing Vs. Consumer Marketing Relational approach to B2B Marketing- The Nature of Industrial Demand & Industrial Customer, Major Equipment; Accessory Equipment; Raw and Processed Materials; Component Parts and Sub- Assemblies; Operating Supplies; Standardized and Non-standardized parts, Industrial services

Unit II: Factors influencing Organizational Buying

Buying Roles; Organizational Buying Decision Process; Environmental & organizational Influences, Buying Roles; The Buy Grid Model; The Organizational Buying Decision Process, Industrial Product Life Cycle –Industrial Product Mix determinants viz. technology – competition – operating capacity – shift in location of customers – government controls – changes in level of business activity

Unit III: Channel Structure for Industrial Products

Geographical, size, operating characteristics – manufacturers' and sales agents – Brokers - Channel Logistics

Unit IV: Pricing for Industrial Products

Pricing Objectives - Price Decision Analysis – Breakeven analysis – net pricing – discount pricing – trade discounts – Geographic pricing – factory pricing – freight allowance pricing – Terms of Sale – Outright purchase – Hire-purchase – Leasing - Auctions-Documentation – bids – order placement – follow up – receipt and inspection

Unit V: Promotion for Industrial products

Supporting salesman – Motivating distributors – Stimulating primary demand – Sales appeal – Publicity & sponsorships – Trade shows – exhibits – Catalogs – Samples – promotional letters – Promotional novelties

Recommended books:

- Industrial Marketing – Hill, Alexander, Cross.
- Industrial Marketing – Hawaldar

Additional reading

- Industrial Marketing – Analysis, Planning and Control – Reeder, Brierty, Reeder
- Industrial Marketing – P. K. Ghosh

(B) HRM SPECIALIZATION

COURSE CODE & TITLE: C 405 – ORGANIZATIONAL CHANGE & DEVELOPMENT

I. Course Description: **Organization development (OD)** is a field of research, theory and practice dedicated to expanding the knowledge and effectiveness of people to accomplish more successful organizational change and performance. This course extends on OD to focus on aligning organizations with their rapidly changing and complex environments through organizational learning, knowledge management and transformation of organizational norms and values.

II. Course Objectives:

1. To study how to increase the effectiveness of the organization in terms of all of its goals.
2. To attempt to create an environment in which it is possible to find exciting and challenging work.

III. Course Outline:

Unit I: Definition, Values and Assumptions, Importance, Evolution: Kurt Lewin, Robert Tanenbaum, McGregor, Herbert Shepard, Robert Blake.

Unit II: Foundations Of OD: Action Research, Survey Feedback, Systems Theory, Teams And Teamwork, Participation And Empowerment, Applied Behavioural Science, Parallel Learning Structures.

Unit III: Process Of OD – Model Of Change, Six Box Model

Unit IV: OD Intervention: Meaning, Importance, Team Intervention: Role Analysis, Interdependency, Appreciation and Concern Inter group: Walton, Principled Negotiation Structural: Sts, Work Redesign, Self-Managed Teams. Individual: T-Group, Behaviour Modeling

Unit V : Human Resource Metrics and Analytics: Client And Consultant Relationship, HR scorecard, Implementation of HR Metrics

Books Recommended:

1. Organisational Development By S Ramnarayan, T V Rao.
2. Organisational Development And Change By Cummings And Worley (7th Edition)
3. Organisational Development By French And Bell (6th Edition)

COURSE CODE & TITLE : C 406 B – INTERNATIONAL HRM

I. Course Description: This course is designed to acquaint the students with the International Human resource Management. The students will get knowledge of various problems faced by International HR managers. The most noticeable aspect of international boundaries is crossing the national boundaries. Organizations need International HRM because of the international market opportunities more today. Knowledge about international HRM, therefore, assumes great relevance for the upcoming Global managers.

II. Objectives:

1. To familiarize students with the function International HR Manager.
2. To understand the scope and challenges for International HRM

II. Course Outline:

Unit I: Human Resources in a Comparative Perspective, Context of IHRM, Organizational Context of IHRM, Understanding Self: Indian Perspective, Cross Cultural Management Role of IHRM in Sustaining the International Business Operations

Unit II: International Recruitment and Selection: Recruiting and Selecting International Staff,

Unit III: Training and Development of International Staff, Developing International Staff and Multinational Teams

Unit IV: International Compensation Approaches to International Compensation, Cultural Factors/Issues in Performance Management, Performance Management for International Staff

Unit V: Repatriation, Managing Global, Diverse Workforce, Industrial Relations in a Comparative Perspective, Global Unions, Regional Integration and Framework Agreements

Unit VI: Emerging Trends in Employee Relations and Employee Involvement, International Labour Standards, HR/IR issues in MNCs and Corporate Social Responsibility, IHRM Trends and Future Challenges

Books Recommended:

1. International Business –By K Ashwathappa, TATA McGraw-Hill publication, Third edition
2. International Business-Competing in the Global Marketplace by Charles W Hill and Arun K Jain, TATA McGraw-Hill publication, Sixth edition
3. International Business –Strategy, Management And The New Realities By S.TamerCavusgil, Gary Knight and John R. Reisenberger, Pearson Publications, First Edition

COURSE CODE & TITLE: C407–TALENT RETENTION & EMPLOYEE ENGAGEMENT

Course Description:

The scope of the course on Talent Retention and Employee Engagement covers entire spectrum of Human Resource Management - starting from talent planning, talent acquisition, talent management and performance management talent development, talent retention, talent performance, careering planning, coaching and talent engagement.

II. Course Objectives:

1. Understand the scope and challenges retaining and engaging talent at every level at the work place thereby talent performs and gets aligned to the mission, vision, values and objectives of the organization.
2. Expose to the students to the latest trends in talent management and talent engagement by exposing through case studies, issues, exercise, researching on various organizations at different levels and industries.
3. To prepare the students to meet industry needs with regards to knowledge, aptitude, attitude in understands the workforce diversity and culture in managing and engaging the talent.

III. Course Outline

Unit I: Introduction to Talent Management: Introduction, nature & significance of Talent management

Unit II: Competency Assessment & Performance Management: Definition, concept Definition and different methods of performance appraisal

Unit III: Succession & Career Planning: Characteristic, Types of Succession Planning, Elements of Succession Panning. Definition and Concepts of Career planning, Advantages and Disadvantages of Career Planning.

Unit IV: Coaching, Training, and Development : Introduction to Training concept, Meaning, Need for Training, Importance of Training , objectives of training, Education, training and development. Driving Cultures of Success

Unit V: Employee Engagement: Definition, Importance, employee engagement linkage to business outcomes, Approaches to employee engagement, employee engagement strategy, and employee engagement survey.

Prescribed books:

1. Human Resource Management –By K Ashwathappa, TATA McGraw-Hill publication, Third edition
2. Human Resource management by John M Ivancevich, TATA McGraw-Hill publication, Third edition

C . FINANCE SPECIALIZATION

COURSE CODE & TITLE : C 405 – INTERNATIONAL FINANCE MANAGEMENT

I. Course Description:

The goal of the course is to provide students with a deep understanding of financial management issues in a global setting. The course aims to help students develop analytical tools that incorporate key international considerations into fundamental financial decisions. The cases provide opportunities to build the skills needed to create and capture value across borders.

II. Objectives:

To acquaint the students with the

1. Concepts of International finance,
2. Instruments used / available in International financial management and
3. Practices followed in International financial management

III Course Outline:

Unit I:

- Foreign Exchange Transaction
- Transfer of Funds,
- Nostro & Vostro account

Unit II:

- Balance of Trade
- Balance of Payment
- Current account transactions
- Capital account transactions
- Reserves
- Convertibility

Unit III:

- Rates of Exchange
- Factors affecting movement of exchange rates
- Management of risk due to fluctuation of rate of exchange
- Forward contract

Unit IV:

- Documents used in International trade
- Methods of payment
- Guarantees
- Letter of Credit
- Export Finance

Unit V:

- Exchange control Regulations
- Forex Markets
- Trade control Regulations
- Agencies in International Trade

Prescribed books:

International Financial Management, Text & Cases, V K Bhalla, Anmol Publications.

Suggested readings:

1. International Financial Management by Thummulur ;Siddiah
2. International Financial Management – by Madhu Vij --- excel books
3. International Finance and Trade – ICAI publication –2 volumes
4. Jeevanadam, C. et al., International Economics, Sultan Chand & Sons

COURSE CODE & TITLE : C 406 – INSURANCE & RISK MANAGEMENT**I. Course Description:**

Risk management course is of importance to business students expecting to deal with business and professional lives in the future. This subject is designed to introduce and discuss various risk management concepts, tools, and techniques in global context. Using integrated approaches, the course will emphasize discussion on the design and implementation of risk management practices. Basically, it purports to help students realize, understand, and master various state-of-the-art risk management theories and practices for their advancement in the future.

II. Course Objectives:

1. To provide students with a comprehensive perspective on risk management concepts, tools, and techniques;
2. To develop analytical and integrative thinking in understanding and implementing the risk management practices..

III Course Outline:

Unit I: Insurance: Introduction to insurer- Documentation, underwriting and claims including principles of insurance, Pricing of policies-various insurance products and their marketing in India, Role of IRDA.

Unit II: Risk Management: Concept, meaning and process of Risk Management, objectives of Risk Management-Application of Risk Management in corporate, Banks, Financial Institutions, stock Markets and Investments

Unit III: Managing Foreign Exchange Exposure

- Management of Translation Exposure & its measurement
- Transaction Exposure & its measurement
- Economic Exposure & its measurement

□

Unit IV: Internal & External Techniques of Risk Management

- Internal and External Techniques viz Netting,
- Matching,
- Leading, and
- Lagging

Unit V: Instruments of External techniques of Risk Management-

- Forwards and Futures Instruments
- Forward Rate Agreement
- Swaps Instruments
- Options Instruments

Prescribed book:

Madhumati, R. and Ranganathan, M. (2012). Derivatives and Risk Management. Pearson Education, 1st Impression.

Suggested readings:

1. Options and Futures- Hull
2. International Finance- A.V. Rajwade
3. Derivatives and Risk Management- Rajiv Srivastava
4. Commodity Futures & Options- George Kleiman
5. Indian Financial System – Machiraju, Vikas Publishing House, 2002, 2nd Edition.

COURSE CODE & TITLE : C 407 – INVENTORY MANAGEMENT

I. Course Description

Inventory management is the overseeing and controlling of the ordering, storage and use of components that a company will use in the production of the items it will sell as well as the overseeing and controlling of quantities of finished products for sale. Finance specialization students should have thorough knowledge about inventory management & the best possible ways to do it. The course has a practical implications as well wherein they will study about one aspect or the other about inventory management.

II. Course Objectives:

1. To know various aspects of inventory management
2. To know the practicalities of inventory management
3. To know what are the functions of store manager

III. Course Outline:

Unit 1: Introduction: Meaning of Inventory, functions, types of inventories, classification of inventories, factors affecting inventory control, advantages and disadvantages of inventory.

Unit 2 : Inventory Management and Control: Objectives, Inventory control concept, Inventory cost concept, Inventory control techniques: ABC Analysis, HML Analysis, FSN, VED Analysis, Material Requirement Planning (MRP), MRP Objectives & Methods, MRP System Components, Limitations and Advantages of MRP, Inventory control models: Static and dynamic control models, Lead-Time Analysis

Unit 3: Requirement of Material: Safety and Buffer Stock, Standard order quantity, Factors affecting Stock levels, Maximum and Minimum Level, Re-order level, Perpetual Inventory System, Lead Time, Economic Order Quantity (EOQ) with & without shortage, BASIC EOQ Model, EOQ under fluctuating demand, feedback inventory information system, economic production quantity, FOQ and FOC System.

Unit 4: Purchasing Management: Establishing specifications-selecting suppliers-price determination-forward buying-mixed buying strategy-price forecasting-buying seasonal commodities-purchasing under uncertainty-demand management, Investing Styles and Behavioral Finance

Unit 5: Materials Management & Warehouse Management: Just in Time (JIT) and Inventory Management, Inventory checking and Accounting, ERP and Inventory Management, Store Management: objectives, receiving procedures and control, identification of materials, storing of materials, Stores location and layout, stores documentation, preservation, Issue control, Stock Valuation & Verification.

Suggested Readings:

1. Inventory Management by R.S. Chaddha
2. Inventory Management by D. Chandra Bose
3. Inventory Management, Principles & Practices by P Narayan & Jaya Subramanian

(D) PHARMACEUTICAL MANAGEMENT SPECIALIZATION

COURSE CODE & TITLE : C 405

**(D) – INTELLECTUAL PROPERTY RIGHTS & LEGAL ASPECTS
IN PHARMACEUTICAL INDUSTRY**

I. Course Description:

It is well established that there is tension in the application of the new regime of Intellectual Property Rights in the Pharmaceutical Industry, especially in developing countries like India. The main purpose behind this study debate on the amendment of the Indian Patent Act, 1970 and the implementation of the TRIPS Agreement, critically analyzing the hypothesis that Intellectual Property Rights are necessary and need to be protected and also on the sufficient evidence to question this premise. Speculation and analysis of the Post-TRIPS, technological, economical and sociological behavior of the Indian Pharmaceutical Industry and the challenges faced by it, also formed the reason behind the present study.

II. Course Objectives:

1. To critically analyze of the Indian (Amendment) Patents Act, 2005 and the TRIPS Agreement.
2. To Study Post-TRIPS, technological, sociological and economical changes in the Indian Pharmaceutical Industry
3. To compare the exponential growth and development brought in by the introduction of the new Intellectual Property Rights regime with the hazardous relentless march of the Intellectual Property Rights bringing in contradiction to the public interest.
4. To analyze the accessibility of flexibilities guaranteed by the TRIPS Agreement.

III. Course contents :

Unit I: The Contract Act,1872 (Sections 1 to 75) – Nature and classification of contracts- Essential elements of a valid contract-Offer and acceptance, Consideration, Valid consideration, Capacities of parties-Provisions related to free consent, valid agreement- Provisions related performance and discharge of contract- Breach of contract, meaning and remedies for breach of contract- Contingent contracts, quaasi contracts, wagering agreements.

Unit II: Provisions relating to Agency (Sections 182 to 238) – Agent and principal, Creation of agency, Ratification ,classification of agents- Relationship amongst principals, agents and sub-agents – Agent’s authority, revocation, renunciation etc.- Rights, duties and liabilities of agents and principals- Termination of agency – Contracts of indemnity and guarantee.

Unit III: The Sale of Goods Act,1930.- Contract of sale of goods- meaning of sale of goods and agreement to sell- essentials and formalities of contract of sale, sale and hire agreement. – Provisions relating to conditions and warranties - Provisions relating to transfer of property or ownership - Provisions relating to performance of contract of sale, rights of unpaid seller,

remedial measures - Provisions relating to auction sale.

Unit IV: The Negotiable Instruments Act,1881 – Meaning of negotiable instrument, its characteristics, types – holder and holder in due course – negotiations and types of endorsements – Dishonour of negotiable instrument – noting and protest.

Unit V: Drug Control Order and role of Food And Drug Administrator.

Unit VI: Introduction to The Consumer Protection Act,1986. – Definitions of consumer, a person, goods, service, trader, manufacturer – Meaning of consumer dispute, complaint, unfair trade practice and restricted trade practice – Consumer protection councils – Consumer dispute redressal agencies.

Unit VII: Companies act, 1956 – Definition and meaning of Company – Main features of a Company – Types of Companies – Incorporation of Companies – Provisions related to capital structure - Provisions related to Directors.

Unit VIII: WTO & TRIPS

Suggested Readings :

1. N.D. Kapoor - Mercantile Law
2. M.C. Kunchal - Mercantile Law
3. K.K. Gujrat - Indian Law of Patents

COURSE CODE & TITLE : C 406 – PHARMACEUTICAL EXPORT MANAGEMENT

I. Course Description: Our pharmaceutical companies are trying their best to achieve remarkable export sale in the international markets. This also provides quality management with special focus on pharmaceutical management for developing business leaders by nurturing knowledge, skills, communication, attitudes and behavior. Pharmaceutical export is contributing to the GDP of the country and every year this contribution is positively growing. The content of the course is designed to address the challenges facing the pharmaceutical industry. The Indian pharmaceutical company has been built from an industry that copies patent drugs and manufactures them inexpensively. Now it is counted amongst the industries that are fuelling India's economic growth and holds enormous potential. Indian-based pharmaceutical companies are also predicted to gain considerable market share in the world. It holds rank worldwide, in terms of technology, quality and range of medicines manufactured. Thus the course concentrates on the Pharmaceutical Export : Facts and Challenges that should not be ignored.

II. Course Objectives:

1. Understanding an International environment for Pharmaceutical Exports and Competitiveness of Indian Pharma-products.
2. Understanding Global market potential for Pharma-Products as well as supply chain organization for Pharma export from producer to port.

3. Understanding Country Risk analysis, Export financing and WTO regulations w.s.r.to Pharma products.

III. Course contents :

Unit I: International environment for Pharmaceutical Exports, Competitiveness of Indian Pharma-products.

Unit II: Global market potential for Pharma-products.

Unit III: Organization of supply chain for Pharmaceutical export – from producer to port.

Unit IV: Pharmaceutical export zones and special facilities for Pharmaceutical exporter.

Unit V: Country risk analysis.

Unit VI: Export promotion schemes for pharma-exports by state & central governments.

Unit VII: Export financing.

Unit VIII: WTO regulations with special reference to pharma products

Prescribed Textbook:

1. Case Study- A V Vedpuriswar –ICFAI Publications
2. Case study- Vol.I, II & III By Krishnaphani Kesiraju

Suggested readings:

1. Ravi Kiran, Sunita Mishra, 2011. Research and Development, Exports and Patenting in the Indian pharmaceutical company: a Post TRIPS Analysis. Eurasian Journal of Business and Economics, 4 (7), 53-67.
2. Nilesh Zacharias and Sandeep Farias, 2002. Business Briefing: Pharmatech 2002. IP Rights/Patents, Patents and the Indian pharmaceutical company.
3. Neetu Dubey , R.K. Sharma, Himanshu Gupta , Nitin Dubey and Nidhi Dubey, March-June, 2011 . Performance of the Indian pharmaceutical company Pre and Post TRIPS Era: A Study, Asian Journal of Pharmacy & Life Science, Vol. 1 (2), ISSN 2231 – 4423

COURSE CODE & TITLE: C 407 – MARKETING STRATEGY & PRODUCT LAUNCH DYNAMICS

I. Course Description: The product concept holds that consumers will favour those products that offer quality or performance. Managers in these product-oriented organisations focus their energy on making good products and improving them over time. Pharmaceutical marketing is a delicate task, product launching is even more. It is such a complex task that, for every marketer in the pharmaceutical sector it's a challenging experience. The Inter-departmental nature of the jobs makes it extremely interactive. The product manager has to manage so many stakeholders that he has to be very careful about maintaining the balance. Beginning from the initial market analysis and profit-loss analysis, thorough subjective and objective decision making capabilities are required. Meeting the deadline is always important but it becomes more so in case of product launching. The task of launching a pharmaceutical product launching is critical in the sense that, for the company, it is a step forward to capitalize growth opportunities. Launching is also a critical experience for a product manager: it requires interaction with almost every department of a pharmaceutical company. Now it is counted amongst the industries that are fuelling India's economic growth and holds enormous potential.

II. Course Objectives:

1. To get in-depth understanding of the pharmaceutical marketing job.
2. To understand how to manage so many stakeholders that he has to be very careful about maintaining the inter-departmental balance.
3. To understand the beginning from the initial market analysis and profit-loss analysis, thorough subjective and objective decision making capabilities required during product launch.

III. Course contents:

Unit I: Pharma Industry components: OTC, Research, APIs, Biotech, Generics, Supply Chain, Packaging and CRO

Unit II: Understanding Patients and Nature of Pharma Industry

Unit III: Management of Lab to Launch Process: Drug design and development

Unit IV: Marketing Objectives of Pharmaceutical Product Launch: New Product Development stages

Unit V: Market Uncertainty and Developing Dynamic New Product Launch Strategies in Pharmaceutical Marketing

Unit VI: Positioning, Targeting and Profiling the offerings

Unit VII: Marketing strategies at different Product Life Cycle stages of Pharma Product and Portfolio Management

Unit VIII: Forecasting a Pharma product and sales force management

Prescribed Textbook:

1. Product-Pharmaceutical Product development by Chilukuri Sunkara Young; Informa Healthcare
2. Introduction to Pharmaceutical Practices by Hanan; Engage Learning
3. Pharmaceutical Emerging trends by Anshul Kaushesh; ICFAI
4. Case studies in Marketing Strategy Vol-II; ICFAI
5. Case studies in Management by Jham & Gupta; Biztantra

Suggested readings:

1. Modern Pharmaceutical Industry by Jacobsen Wertheimer; A Primer
2. Pharmaceutical Product Branding Strategy- IInd edition by Mark Paich, Corey, Jason; Informa Healthcare
3. Case Studies in Marketing Research & Product management; ICFAI
4. Case studies in Management Vol-VI; ICFAI

Reference Books:-

1. Marketing Management (Pearson) by Philip Kotler, Kevin Keller, Koshy and Jha (ISBN 978-81-317-6716-0)
2. Marketing Management by Rajan Saxena

Suggested Readings

1. Dr. Subhash Bhawe - Physical Distribution And Logistics Management
2. Stern, Erin Anderson And El Ansary - Marketing Channels
3. Philips Kotler - Marketing Management
4. Subhash Jain - International Marketing Management

(E) IT & SYSTEMS SPECIALIZATION**COURSE CODE & TITLE : C 405 – INNOVATION AND TECHNOLOGY
MANAGEMENT****I. Course Description:**

In this modern era of high competition and fast changes, -Innovation and Technology Management is assuming ever increasing importance in shaping the progress and future of the nations and business firms. The technological change is continuously occurring and affecting all aspects of life. It is bringing new opportunities and new threats.

This course is designed for management students which signify the importance for the entrepreneurs and managers, both present and future. This course largely meets the requirements of MBA program.

II. Course Objectives:

Main objectives of this course are to:

1. To study the management of Technology.
2. To understand the use of technology for survival and growth.
3. To study the innovation at all level.

III. Course Outline:**Unit I: Technology in Management**

- Technology for survival and growth
- Science and technology
- Types of technology
- Technology portfolio
- Technology life cycle
- Management of technology
- Technology forecasting
- Technology generation
- Technology development

Unit II: Innovation

- Goals and reasons
- Difference between invention and innovation
- Sources and advantages
- Associated risks
- Characteristics and types
- Process
- Failures
- Innovation

- Management of Innovation

Unit III: Technology and its Concepts

- Technology Transfer
- Technology acquisition
- Technology Absorption
- Technology Diffusion
- Technology Maturity
- Technology Obsolescence
- Technology Discontinuities
- Technology Assessment
- Technology Audit
- Impact of Technological Change/Progress

Unit IV: Information Technology

- IT and the World
- IT and the Government
- IT and Industry
- IT and India
- IT and Career Management
- Internet, Intranet and Extranet

Unit V: Organizational Change Management (5 Hours)

- Organizational change
- Types and reasons
- Change Management- Strategies, Process
- Role of Leader in Facilitating Change
- Technological Change
- Change in Product and Process Design
- Time Frame of Change
- Managing Transformation.

Books Recommended:

1. Twiss, Brain and Good Ridge – Managing Technology for Competitive Advantage.
2. Hawthorne, Edward – Management of technology.
3. Burgelman Robert A. – Strategic Management of Technology and Innovation.
Jain Ashok ET. al.—Indicators of Indian Science and Technology

COURSE CODE & TITLE: C 406 –MARKETING OF INFORMATION TECHNOLOGY

I. Course Description: The success of a product or service depends as much on its marketing as its make. And successful marketing rests on a scientific approach to the entire technology cycle, innovation, and domain knowledge of the marketing personnel. Since information technology industry changes faster than any other industry, vendors and marketers need to stay abreast of the latest trends in technological development and newer means of delivering IT services.

II. Course Objectives:

1. Introduction to marketing IT products and services
2. Classification of IT market
3. Dynamics of IT services and product markets
4. Dynamics of IT market in different geographies & consumer behavior

III. Course Outline:

Unit I: Global and Indian Software Industry Environment: Historical Growth of the Industry, Market Size, Nature of Products, Projects and Services, Major Players, Industry Associations and their role in market development, Overview of India's Software Export Industry. Concept of Cloud based advertisement- Product delivery and Maintenance, Mobility and alliances for marketing of IT

Unit II: Services Marketing Mix: 7 Ps of Services Marketing – Service Life Cycle Strategic Aspects of Software Marketing - Identification of potential markets, Industry/ Business analysis and creating/ sustaining competitive advantage - Segmenting, Targeting and Positioning, IT Consulting

Unit III: Promotion: Role of Promotion in Software Marketing; Personnel Selling, Advertising and Sales Promotion; Trade Shows, Role of Relationship Marketing in promoting software. Web based advertisement. Google's content based advertisement.

Unit IV: Distribution: Place – Distribution Strategies for Software Products / Services; Challenges in distribution of Software Products and Services; Role of Internet in distribution of Software Products and Services. Smart phone application. Social media advertisement.

Unit V: Pricing: Factors involved in pricing software Products, Price estimating for Software Projects

Unit VI: Customer Satisfaction & Service Quality: Monitoring and Measuring customer satisfaction. Applying technology to service settings, e-services. Role of People, Process and Physical Evidence in Software Products and Services. Online feedback and Maintenance. Use of Facebook, Twitter and Call centre for feedback, Managing Digital Platforms.

Suggested Readings

1. Services Marketing - Zeithaml, Bitner, Gremler & Pandit, TMGH, 4 Edition.
2. Service Marketing : Concepts, Applications And Cases – Rampal & Gupta, Galgotia, 2000
3. Saxena Rajan MM, (1997), **Services Marketing**, Tata McGraw Hill, New Delhi
4. Edward Hasted,; Software That Sells: A Practical Guide to Developing and Marketing your; John Wiley & Sons (2005); ISBN 10: 0764597833 ISBN 13: 9780764597831
5. Influence of Social Media on Social Services: A Study of Youngistan Piyush Kant Pyasi , Nitin Kr. Saxena , Pranay Karnik_

COURSE CODE & TITLE : C 407 – KNOWLEDGE MANAGEMENT SYSTEM

I. Course Description: The goal of this course is to give a solid foundation covering the major problems, challenges, concepts, and techniques dealing with the organization and management of knowledge with the help of computers.

II. Course Objectives:

1. Understand the fundamental concepts in the study of knowledge and its creation, acquisition, representation, dissemination, use and re-use, and management.
2. Appreciate the role and use of knowledge in organizations and institutions, and the typical obstacles that KM aims to overcome.
3. Understand how to apply and integrate appropriate components and functions of various knowledge management systems.
4. Be prepared for further study in knowledge generation, engineering, and transfer, and in the representation, organization, and exchange of knowledge.
5. Critically evaluate current trends in knowledge management and their manifestation in business and industry.

III. Course Outline:

Unit 1: Knowledge Management Overview, Nature of Knowledge, Knowledge Management Solutions, Organizational Impacts of Knowledge Management, Strategic Management of IT

Unit 2: Knowledge Education, Explicit and Implicit Knowledge, Discovering New Knowledge , Data Mining, Knowledge based Systems for utilizing human expertise

Unit 3: Knowledge Discovery Systems that Create Knowledge, Knowledge Capture Systems: Systems that Preserve and Formalize Knowledge; Concept Maps, Process Modeling, RSS, Wikis, Delphi Method, etc. Knowledge Sharing Systems: Systems that Organize and Distribute Knowledge; Ontology Development Systems, Categorization and Classification Tools, XML-Based Tools, etc. Knowledge Application Systems: Systems that Utilize Knowledge

Suggested Readings

1. Irma Becerra-Fernandez, Avelino Gonzalez, Rajiv Sabherwal (2004). Knowledge Management Challenges, Solutions, and Technologies (edition with accompanying CD). Prentice Hall.
2. Elias M. Awad, Hassan M. Ghaziri (2004). Knowledge Management. Prentice Hall. Ian Watson (2002). Applying Knowledge Management: Techniques for Building Corporate Memories. Morgan Kaufmann. Madanmohan Rao (2004). Knowledge Management Tools and Techniques: Practitioners and Experts Evaluate KM Solutions. Butterworth-Heinemann..
3. Amrit Tiwana (2002). The Knowledge Management Toolkit: Orchestrating IT, Strategy, and Knowledge Platforms (2nd Edition). Prentice Hall.

(F) BIOTECH & BIOINFORMATICS SPECIALIZATION

COURSE CODE & TITLE: C 405 – INDUSTRIAL BIOTECHNOLOGY & FOOD TECHNOLOGY

I. Course Description: It seeks to provide education and training, empower students with technical skill-set, create capacities and build career opportunities in three key domains of biotechnology namely: Research and development, Science education and Policy, regulations and management.

II. Course Objectives:

1. To familiarize the students with the working of Biotechnology plant management in Biotechnology sector.
2. To advance education and research in Plant Biotechnology and explore sustainable solutions for agriculture, environment and energy sectors.

III. Course Outline:

Unit I: Introduction to Industrial Biotechnology: Conventional Biotechnology, its origin, Fermentation based products, Process Development, Downstream Processing, Metabolite Production, Biotransformation, Bio-control agents, Bio-fertilizers.

Unit II: Introduction to genetic engineering: Fundamentals of Life Process, Protein structure functions; Extraction based products, Introduction to immunity, immuno-technology and Medical applications of Biotechnology

Unit III: Introduction to Food Biotechnology: Unit Operations in Food Processing, Quality Factors in Preprocessed Food, Food deterioration and its control Rheology of Food products, Genetically modified organisms and its use in food industry, Modern Biotechnological regulatory aspects in food industries

Unit IV: Introduction to Environmental Biotechnology: Types of Pollution, Water pollution, Soil Pollution, Air Pollution, Noise Pollution, Sources of pollution, Global warming Depletion of ozone layer, Control of air pollution through biotechnology, Bioremediation, Biotechnology application to hazardous waste management.

Unit V: Features of recent Governmental Policy an BT, both State and Central Policy

Books Recommended:

1. Fundamentals of Microbiology by Forbisher
2. Food Biotechnology: Dietrich Knorr, Inc. New York and Basel
3. Food Science: Potter N.N. CBS publication
4. Handbook of Food Biotechnology : NIIR Board of Consultants and Engg., NIIR
5. Food Science and Technology: B.S.Khattar, Daya Publishing House, Delhi
6. Textbook of Biotechnology-H.K.Das
7. Textbook of Biotechnology-Purohit
- 8.

COURSE CODE & TITLE : C 406 – ESSENTIALS OF BIOINFORMATICS

I. Course Description: It seeks to provide education and training, empower students with technical skill-set, create capacities and build career opportunities in three key domains of biotechnology namely: Research and development, Science education and Policy, regulations and management.

II. Course Objectives:

1. To familiarize the students with the working of Biotechnology plant management in Biotechnology sector.
2. To advance education and research in Plant Biotechnology and explore sustainable solutions for agriculture, environment and energy sectors.

III. Course Outline:

Unit I: What is Bioinformatics – databank, data capture, data analysis Pair wise alignment, multiple alignment, BLAST, FAST algorithm for analysis sequence comparison, accessing databank. Protein structure databank and application.

Unit II: Introduction and Bioinformatics Resources: Knowledge of various databases and bioinformatics tools available at these resources, the major content of the databases, Literature databases: • Nucleic acid sequence databases: GenBank, EMBL, DDBJ • Protein sequence databases: SWISS-PROT, TrEMBL, PIR, PDB • Genome Databases at NCBI, EBI, TIGR, SANGER • Other Databases of Patterns/Motifs/System Biology (Gene and protein network database and resources)

Unit III: Sequence analysis: • Various file formats for bio-molecular sequences: genbank, fasta, gcg, msf, nbrf-pir etc. • Basic concepts of sequence similarity, identity and homology, definitions of homologues, orthologues, paralogues. • Scoring matrices: basic concept of a scoring matrix, PAM and BLOSUM series. • Sequence-based Database Searches: what are sequence-based database searches, BLAST and FASTA algorithms, various versions of basic BLAST and FASTA

Unit IV: Pairwise and Multiple sequence alignments: basic concepts of sequence alignment, Needleman & Wunchsh, Smith & Waterman algorithms for pairwise alignments, Progressive and hierarchical algorithms for MSA. Use of pairwise alignments and Multiple sequence alignment for analysis of Nucleic acid and protein sequences and interpretation of results.

Unit V: Phylogeny: Phylogenetic analysis, Definition and description of phylogenetic trees and various types of trees, Method of construction of Phylogenetic trees [distance based method (UPGMA, NJ), Maximum Parsimony and Maximum Likelihood method]

Unit VI: Current Advancements in Bioinformatics: Introduction to System Biology, Structural Biology, Structural bioinformatics, Chemoinformatics, Immunoinformatics etc.

Books Recommended:

1. Introduction to Bioinformatics by Aurther M lesk
2. Developing Bioinformatics Computer Skills By: Cynthia Gibas, Per Jambeck
3. Structural Bioinformatics

COURSE CODE & TITLE : C 407 – AGRICULTURAL BIOTECHNOLOGY

I. Course Description: It seeks to provide education and training, empower students with technical skill-set, create capacities and build career opportunities in three key domains of biotechnology namely: Research and development, Science education and Policy, regulations and management.

II. Course Objectives:

1. To familiarize the students with the working of Biotechnology plant management in Biotechnology sector.
2. To advance education and research in Plant Biotechnology and explore sustainable solutions for agriculture, environment and energy sectors.

III. Course Outline:

Unit I: Introduction to Agricultural biotechnology, Scope of agro biotechnology, Transgenic plants-resistance to viral diseases, Biotechnology for commercial crops, Maize, Rice, Cotton, Potato, Tomato, Sugarcane. Techniques used in Plant biotechnology.

Unit II: Plant Biotechnology- Methods of Crop Improvement, Gene transformation techniques in Plant Biotechnology: Agro-bacterium mediated gene transformation and Gene gun method. Bt genes and its applications.

Unit III: Disease resistant plants, Resistance to biotic stress, Herbicide resistance in plants The Indian force of Agricultural biotechnology.

Unit IV: Introduction to marine Biotechnology, Biotechnology in Aquaculture, Improvement in grain and tuber quality, Agriculture and genetic engineering, Agricultural diagnosis. Application of Plant diagnostics

Unit V: Transgenic plants as bioreactors, Production of antibodies and primary metabolites by plants, Biotechnology for the production of secondary metabolites

Unit VI: Animal livestock breeding, Importance of livestock in agriculture, relationship between plant and animal husbandry, animal breeding, breeds of indigenous and exotic cattle, buffaloes, goats, sheep, pigs and poultries and their potential for milk, egg, meat and wool production, classification of feed and fodder, major contagious diseases affecting cattle and drought animals, poultries and pigs, Sericulture and its applications Biotechnology in

Agriculture, Ethical Aspects and Public Acceptance.

Books Recommended:

1. Biotechnology by B. D. Singh, Kalyani Publication
2. Biotechnology – Fundamentals and applications by S. S. Purohit,
3. Student Edition Agricultural Biotechnology-Arie Altman, CRC Press
4. Biotechnology- An Introduction by Susan R. Barnum, Vikas Publishing House
5. Aqua Culture – An Introduction, Lee & Newman, Interstate Publishers

G - INTERNATIONAL BUSINESS SPECIALIZATION

COURSE CODE & TITLE : C 405 – INTERNATIONAL MARKETING

I. Course Description:

International marketing is the export, franchising, joint venture or full direct entry of a marketing organization into another country. This can be achieved by exporting a company's product into another location, entry through a joint venture with another firm in the target country, or foreign direct investment into the target country.

II. Course Objectives:

1. To bring countries closer for trading purpose and to encourage large scale free trade among the countries of the world.
2. To bring integration of economies of different countries and there by to facilitate the process of globalization of trade

III: Course Outline:

Unit I: Introduction to International Marketing

- Basic terms like exporting
- export marketing, deemed exports
- Definitions of international marketing
- International marketing concept
- Objectives, challenges & opportunities in international marketing.

Unit II: Multinational Market Regions & Market Groups

- Strategic implications for marketing, market barriers, marketing mix implications
- The commonwealth of independent states, Key provisions of NAFTA, Region wise trading groups& emerging markets.
- Global Market Segmentation-Advertising strategy Goals
- Product Attribute Benefit segmentation, Regional segmentation.

Unit III: Products& services for Consumers

- Analyzing product components for adoption, product concept model, Packaging component, support service component

- Marketing consumer services globally, barriers in entering global markets for consumer services Top 20 brands

Unit IV: Developing Global Marketing Strategy

- Benefits of global marketing, planning for global markets, the planning process
- Obtaining export credit insurance
- Golden rules for successful Exporting
- ECGC – Insurance policies & Financial Guarantees
- Rules for successful exporting
- EXIM Bank

Unit V: Export Promotion

- Need for export promotion, Institutional Infrastructure, Incentives, Facilities, assistances provided to exporters

Prescribed books:

International Marketing –By Philip R. Cateora; John L. Graham and Prashant Salwan, TATA McGraw-Hill publication, Thirteenth edition

COURSE CODE & TITLE : C 406 – INTERNATIONAL FINANCE & FOREX MANAGEMENT

III. Course Description:

The goal of the course is to provide students with a deep understanding of financial management issues in a global setting. The course aims to help students develop analytical tools that incorporate key international considerations into fundamental financial decisions. The cases provide opportunities to build the skills needed to create and capture value across borders.

II. Course Objectives:

To acquaint the students with the

1. Concepts of International finance,
2. Instruments used / available in International financial management and
3. Practices followed in International financial management

III Course outline:

Unit I:

- Foreign Exchange Transaction
- Transfer of Funds,
- Nostro & Vostro account

Unit II:

- Balance of Trade
- Balance of Payment
- Current account transactions
- Capital account transactions
- Reserves
- Convertibility

Unit III:

- Rates of Exchange
- Factors affecting movement of exchange rates
- Management of risk due to fluctuation of rate of exchange
- Forward contract

Unit IV:

- Documents used in International trade
- Methods of payment
- Guarantees
- Letter of Credit
- Export Finance

Unit V:

- Exchange control Regulations
- Forex Markets
- Trade control Regulations
- Agencies in International Trade

Prescribed books:

International Financial Management, Text & Cases, V K Bhalla, Anmol Publications.

Suggested readings:

1. International Financial Management by Thummulur ;Siddiah
2. International Financial Management – by Madhu Vij --- excel books
3. International Finance and Trade – ICFAI publication –2 volumes

COURSE CODE & TITLE : C 407 – INTERNATIONAL BUSINESS STRATEGY

I. Course Description:

The primary need and purpose is to become familiar with a number of strategy concepts as well as to see how business strategy fits with broader dynamics in the society. We will start the discussion about business sustainability and the potential limits to economic growth that will be

continued through different parts of the course.

II. Course Objectives:

1. Understand the nature of strategic competitiveness and develop the ability to analyze the competitive environment facing a firm, assess the attractiveness of the industry and isolate potential sources of competitive advantage and disadvantage.
2. Develop business level strategies by defining the type of advantage sought, scope of operations and activities required to deliver the chosen strategy. Assess the likely sustainability of firm strategies and competitive positions.
3. Consider the actions of competitors and how that impacts your ability to reach your strategic goals. Develop courses of actions that incorporate the actions of multiple players in the marketplace.

III. Course Outline:

Unit I: Introduction to International Business Strategy: International Business Strategy – Scope and Importance of IBS, Purpose of Business, Difference between Goals and Objectives of Business, Conceptual Evolution of Strategy

Unit II: Business Policy and Strategic Management: Type of Business Policy & Strategic, Factors influencing Business Strategies, Objectives of Strategic Management, Causes for Failure of Strategic Management

Unit III: Business Strategy Formulation: Types of Strategies, Steps in Strategies Formulation, Factors to be Considered for Environmental Scanning, Core Competencies and Their Importance in Strategy Formulation

Unit IV: International Business Strategic Planning and implementation: Strategic Planning Process, Types of Strategies –Stability, Expansion or Growth, Mergers and Acquisitions, Issues in Strategy Implementation , Integrating the Functional Plan & Policies.

Unit V: Strategic Analysis and Choice: Process of Strategic Analysis, Tools and Techniques for Strategic Analysis, Strategist’s Decision Style an Attitude to Risk, Experience Curve Analysis,

Unit VI: Business- Level Strategies: The Foundations of Business – Level Strategies, Business – level Strategies, Integrating Cost Leadership and Differentiation

Unit VII: Functional and Operational Implementation: Functional Strategies (Vertical & Horizontal), Financial Plans & Policies (Need and Nature), Marketing Plans & Policies (Product , Pricing, Place, Promotion, Integrative)

Prescribed Books:

1. Strategic Management and Business Policy by Azhar Kazmi
2. International Business Strategy - Rethinking the foundations of global corporate Success by Alain Verbeke

Reference Books: Strategic Marketing BY Douglas West

(G) HOSPITAL AND HEALTHCARE SPECIALIZATION

COURSE CODE & TITLE : C 405 – MANAGEMENT OF CORPORATE HOSPITAL

I. Course Description: This course is to introduce management concepts and process with a focus on leadership and human behaviour in organizations.

II. Course Objectives:

1. To introduce principles of hospital management and the functional organization of a hospital.
2. Concept of Health Care Industry & its ever-changing character

III. Course Content:

Unit I: Understanding functioning of Corporate multi-specialty hospital

Unit II: Managerial activities for effective hospital functioning

Unit III: Duties and responsibilities of Hospital Managers

Unit IV: Qualities of effective Managers

Unit V: Effective inter and intra departmental co-ordination

Unit VI: Rules and regulations of international health policy.

Unit VII: Medico- Legal Problems in relation to health administration

Unit VIII: Law of Contracts, Specific Performance

Unit IX: Law applicable to Hospital employees

Unit X: Medical jurisprudence and functioning of hospitals

Unit XI: Consumer Protection Act and Hospitals

Suggested Readings

1. Hospital Administration - Tabish
2. Hospital Administration - S. L. Goel
3. Hospital Administration Sakaharkar

**COURSE CODE & TITLE : C 406 – HOSPITAL WASTE & HYGIENE
MANAGEMENT**

I. Course Description: Due to the nature of their work, hospitals produce a variety of waste substances, including biological wastes, needles, and discarded drugs. Because these substances can be hazardous if not disposed of properly, hospitals must create a stringent waste management program to ensure the safe and efficient disposal of dangerous wastes.

II. Course Objectives:

To evaluate technical and sanitary aspects of hospital waste management situation in selected facilities, regarding to handling, storage, treatment, collection and final disposal.

III. Course Content:

Unit I: Introduction, Definition of General and Hazardous health care waste, Infectious waste, Genotoxic waste, Waste Sharps, Biomedical waste – categories Categorization and composition of Biomedical waste. Specification of materials. Colour coding. Sources of Health care wastes, Hospitals & health care establishments & other sources.

Unit II: Health Impacts of Biochemical waste. Direct & Indirect hazards.

Unit III: Potential health hazards. Persons at risk. Basic information about- What infection? Infection agents on organizations spread of infection Basic information about Hospital acquired infection.

Unit IV: Legislation and policies on Health care waste management.

Biomedical waste Management and handling Rules,
1998 and its amendment there after.

CPCB guidelines.

(Central pollution control board)

Some idea on Safe disposal of Radioactive waste

Rules, 1995 guideline of BARC

Unit V: International Scenario

World Health Organization guidelines on

- a) Management of wastes from Hospital waste
- b) Management of hospital wastes in
- c) Developing countries

Unit VI: Basic steps in Health Care Waste Management Segregation at the point of generation sharp Decontaminating/ Disinfections unit container for autoclaving Sharp waste containers for storage & transportation autoclaving/shredding /incrimination/ bio hazard symbols. Microwave, Hydropulping, plasma torch.

Unit VII: Hygiene Management: Importance of hygiene and safety, Applied areas of Hygiene Management: Operational hygiene, Kitchen Hygiene, (Drinking) water systems, Air-conditioning systems and Hotel Hygiene

Books Recommended:

1. The Book of Hospital Waste Management Hardcover – February 15, 2003 by B.D. Acharya , Meeta Singh
2. Hygiene For Management 17th Edition- Bertrams- 1909749265

COURSE CODE & TITLE : C 407 – MARKETING OF HOSPITAL AND HEALTHCARE SERVICES

I. Course Description: Clinics, hospitals and medical practices must develop marketing plans to attract patients to their facilities in an increasingly competitive field. As with most industries, the marketing of health-care services requires some astute planning and a clear focus on the objectives of the campaign.

II. Course Objectives:

1. To study how to educate patients about serious health conditions, such as heart disease and diabetes, and how to avoid getting them.
2. To study how hospitals promote their services through free or discounted health screenings for such Chronic Healthcare conditions.

III. Course Content:

Unit I: Marketing of Hospital: Telephone Courtesy, Guest Lectures, Organization of Camps, Seminars, Workshops, Continuous Medical Education, Public Participation.

Unit II : Marketing in Health Care: Introduction, Meaning and Scope of Marketing in Health Care, Distinctive Nature of Service Marketing, Service Marketing mix, Service Quality, Marketing Communication for Health Care Services

Unit III: Pricing of Health Services: Pricing Objectives, Revenue Oriented Pricing Objectives Marketing Skimming Objectives, Market Penetration Objectives, Operations Oriented Pricing Objectives G. Patronage Oriented Pricing Objectives

Unit IV: Bases Used in Pricing: Cost Based Pricing, Competition Based Pricing, Demand Based Pricing, Pricing when Value to the Customer in low Price, Price Discount, Old Pricing, Place Differentiates, Quality Differentials

Unit V: Pricing Strategies: Value Pricing, Complementary Pricing, Price Funding, Market Segmentation Pricing

Books Recommended

1. Marketing – Rogera Kerin & Steven W. Hartcey – McGraw Hill.

(I) OPERATIONS AND SUPPLY CHAIN MANAGEMENT**PAPER – 4 MANAGEMENT OF MANUFACTURING SYSTEM****Paper Code:C405I****Objectives:**

1. To understand the concepts and principles materials and store management
2. To appreciate the role of store management and forecasting
3. To analyze the management aspects of health and safety in work

Unit I Determination of Stockholding Policy. Customer expectations – internal/external; supply market conditions; Categories of risks and their evaluation; Requirements of the business and the need for stock; Economics constraints; methods of avoiding carrying stock; General control methods e.g. ABC analysis. Control of Stock Range Coding, classification and categorization methods;

Unit II Variety reduction and standardization; Application and approval of new stock items; Control of slow moving; obsolete and redundant stock; Role of and function in determining stock range, Control of Stock Levels Forecasting techniques in relation to demand and lead times; Independent demand situations and the use of fixed order quantity and periodic review systems; Techniques for dealing with dependent demand.

Unit III The Kanban approach and Just in Time philosophy; Coping with uncertainty in achieving required service levels; Suppliers contribution to controlling stock. Management of Storage Facilities. Identifying types of commodities to be stored and their characteristics with regard to storage and handling needs; Materials requirements planning (MRP) and manufacturing resource planning (MRPII) and distribution requirements planning (DRP); Pull systems.

Unit IV Physical Management of Stock Selection and operation of appropriate storage and materials handling equipment – general outline; Methods of stores layout to optimize the use of space and minimize picking costs; Outsourcing the activity and vendor managed inventory; Maintenance of security and prevention of theft; Storage and disposal of redundant, obsolete and scrap items; Environmental issues.

Unit V Management Aspects Health and Safety at work – operational issues: Health and Safety at work – management issues interdependence and teamwork; Relationships with other functions. Relevant Techniques Use of operational research techniques of queuing theory, network analysis, simple simulation techniques and decision trees; Identifying methods to distinguish between stores efficiency and effectiveness; Benchmarking and measurement of performance.

Unit VI: Basics of Business Process Reengineering: Concept of BPR, process of BPR, application of BPR in productivity improvement.

References

1. Jessop & Morrison, STORAGE AND SUPPLY OF MATERIALS,
2. Duru C. Innocent, PURCHASING AND STORES MANAGEMENT, Ken Printing Press, Lagos.
3. Terry Lucey, QUANTITATIVE TECHNIQUES, Letts Educational, 5th Edition.
4. Dobler & Burt. PURCHASING & SUPPLY MANAGEMENT

PAPER - 5 INFORMATION SYSTEM IN SUPPLY CHAIN MANAGEMENT Paper

Code: C406I

Objectives:

1. To appreciate the role of IT in supply chain □ To understand data mining in supply chain.
2. To analyze IT practices in supply chain □

Unit I The role of IT in Supply Chain .Uses of IT in inventories, Transportation & facilities within a Supply Chain .The Supply Chain IT frame work-macro Processes

Unit II The future of IT in the Supply Chain, Internal Supply Chain management, Supply Relationship Management, The Transaction Management Foundation .Data mining –Methods application area in Supply Chain

Unit III Goals of Supply Chain information Technology, Standardization, information Technology infrastructure Presentation Devices, Communication Devices .Data base, System architecture.

Unit IV The Supply Chain IT in Practice, Integrating Supply Chain Information Technology, Stage of Development, Implementation of ERP & DSS. Structure of DSS. Selection of Supply Chain DSS. Supply Chain master Planning.

Unit V Supply Chain Information System Design – Planning, Capacity, Performance requirement‘ manufacturing requirement, Operation, Transportation, Inventory Development .E-Business –Role in Supply chain, Supply Chain Analytics Framework, Impact on Cost.

References

1. David Simchi-Levi et al, DESIGNING AND MANAGING THE SUPPLY CHAIN – CONCEPTS, STRATEGIES, AND CASE STUDIES, McGraw Hill International Edition 2003.
2. N. Chandrasekaran, SUPPLY CHAIN MANAGEMENT, Oxford University Press, New Delhi 2010
3. Donald J Bowersox et al, SUPPLY CHAIN LOGISTICS MANAGEMENT, McGrawe Hill Education (India) Pvt. Ltd.New Delhi 2007

PAPER -6 INNOVATION AND R&D MANAGEMENT Paper Code: C407I

Objectives :

1. To understand the managerial aspects of Innovation functions
2. To appreciate the Research & Development in management
3. To evaluate the financial aspects of R&D projects

Unit I Introduction & Managerial aspects of Innovation function Introduction, Components of Innovation, Types of Innovations, Models of Innovation Processes, Evolution and characteristics of Innovation Management, Key drivers of Innovation, Factors influencing Innovation, Organizing for Innovation, Factors influencing organizational design, Developing Innovation Strategy, Characteristics of creative of creative organization.

Unit II Research and Development Management Introduction, Meaning, Objectives, Significance, Classification of R&D according to R&D type, process phase, measurement level, purpose of measurement and measurement perspective. Technology development approaches, Performance of R&D management in Indian scenario.

Unit III Financial Evaluation of R&D Projects Introduction, Cost effectiveness of R&D, R&D financial forecasts, Project selection, Evaluating R&D ventures, Conflicting views of managers. Allocation of resources, R&D programme planning and control. Project management, Project Planning and Control Techniques.

Unit IV Organization R&D and innovation, HRM issues in innovation and R&D, Leadership and R&D management, Organization Design and structure of R&D, R&D Project Management, Measurement, Evaluation and assessment of R&D

Unit V National R&D infrastructure and Institutional Framework, Fiscal and other incentives and Promotional /Support measures, Industry, Institutions and government cooperations. Other important issues in R&D management, Commercialization of R&D.

Unit VI: Project Quality Management: Concept of project quality, responsibility for quality in projects, quality management at different stages of project, tools and techniques, Quality Management Systems, TQM in projects

References

1. White, THE MANAGEMENT OF TECHNOLOGY AND INNOVATION-A STRATEGIC APPROACH, Cengage Publication S Moikal, INNOVATION MANAGEMENT, Sage Publication
2. C.K Prahalad & M.S. Krishnan, THE NEW AGE OF INNOVATION, Tata McGraw Hill Education Pvt. Ltd. New Delhi 2008.

SYLLABUS MBA IV SEM
Specialization : Business Analytics

BUSINESS ANALYTICS COURSE CODE & TITLE:

(j) C 405 (J) Data visualisation for Managers

I. Course Description:

As big data gets bigger, managing it in the cloud is an increasingly popular IT strategy. The power and flexibility of cloud services allow organizations to harness and analyze their data more efficiently. System administrators, IT managers and other data professionals who understand cloud storage and analytics technologies are becoming valuable assets for businesses of all sizes.

II. Objectives:

1. To study key aspects of data security, synchronization and protection.
2. To compare storage, database and big data solutions provided by the major cloud vendors.
3. To study technical concepts that include data models, cloud architecture, scalable analytics administration, data visualization and relational query processing
4. To know strategies for working with and analyzing unstructured data

III. Course Outline:

Unit I: Introduction to Cloud Computing: The Evolution of the Cloud, Definition, various Cloud Services, Attributes, User- System Interface, Characteristics of Cloud Computing, Five Levels of Redundancy, Cloud Categories, Cloud Delivery Models, Emerging Technology, vendor Choices, Infrastructure Limitations, Negligence, Cloud Scenarios and Considerations

Unit II: Security in the Cloud: data Security and Control, Cloud Threats, Threat Mitigation, Cloud Security, Data Confidentiality and Privacy Service Availability, Cloud Risk Summary, Real World Issues with Cloud Computing, Cloud Security Alliance, National Institute of Standards and Technology, Cloud Computing and Business Commerce, Cloud Management Audit/Assurance Program, Cloud Business Continuity Planning, Determining the Cloud Category

Unit III: Big Data introduction - Big data: definition and taxonomy - Big data value for the enterprise - Setting up the demo environment - First steps with the Hadoop -ecosystem

Unit IV: Querying big data with Hive - Introduction to the SQL Language - From SQL to HiveQL, Introduction to HIVE e HIVEQL - Using Hive to query Hadoop files

Unit V: Big data & Machine learning - Quick into to Machine learning - Big Data & Machine Learning - Machine learning tools 1) Spark & SparkML 2) H2O 3) Azure ML, Next steps in the big data world

IV. Prescribed books:

1. Big data. Architettura, tecnologie e metodi per l'utilizzo di grandi basi di dati, A. Rezzani, Apogeo Education, 2013
2. Hadoop For Dummies, Dirk deRoos, For Dummies, 2014.

COURSE CODE & TITLE: C 406 J - SECURITY & MASTER DATA MANAGEMENT FOR BUSINESS FORECASTING

I. Course Description: High-quality, low-redundancy reference data is essential in business today. Customer relationship management (CRM) without customer data integration is difficult. Effective supply chain management is equally difficult without integrated product, supplier, and partner data.

II. Objectives:

1. The concepts and terminology of MDM.
2. The architectural options for MDM- implementation.
3. The elements and activities of building an MDM- business case
4. Best (and worst) practices for MDM.
5. The important role of related disciplines such as data governance and data quality.

III. Course Outline:

Unit I: Security Management Practices: Overview of Security Management, Information Classification Process, Security Policy, Risk Management, security Procedures and Guidelines, Business Continuity and Disaster Recovery, Ethics and Best Practices

Unit II: Introduction: What is Master Data Management? What Is Master Data? Sources of Master Data, Poor Master Data Consequences , Why is Master Data Management So Difficult? Types of Master Data Managed.

Unit III: Introduction to Data Profiling: What is Data Profiling? Myth and Reality of Data Profiling, Profiling Techniques, Profiling Challenges, Role of Profiling, People and Technology.

Unit IV: Implementation Fundamentals: Parsing and Standardization, Introduction to Data Matching, Data Matching Techniques, Data Matching Destinations, Evaluating Data Matching Tools.

Unit V: MDM Architecture: Architecture Approaches, Conforming Dimensions for the Enterprise, Business Process Workflows, Data Quality, Data Quality Case Example, Syndicated Data o Architecting Syndicated Data

IV. Prescribed books:

1. Information Security Management - CISSP. Harold F.Tipton
2. Information Security: The Complete Reference - Mark Rhodes-Ousley

COURSE CODE & TITLE: C 407 J - INTERNET OF THINGS

I. Course Description:

The concept of Internet of Things (IoT), has begun to make an impact in industries ranging from industrial systems to home automation to healthcare. Researchers continue to conduct groundbreaking research on topics ranging from RFID to cloud technologies, from sensors to the World Wide Web.

II. Objectives:

1. Vision and Introduction to IoT.
2. Understand IoT Market perspective.
3. Data and Knowledge Management and use of Devices in IoT Technology.
4. Understand State of the Art – IoT Architecture.
5. Real World IoT Design Constraints, Industrial Automation and Commercial Building Automation in IoT.

III. Course Outline:

Unit I: M2M to IoT-The Vision-Introduction, From M2M to IoT, M2M towards IoT-the global context, A use case example, Differing Characteristics.

Unit II: M2M to IoT – A Market Perspective– Introduction, Some Definitions, M2M Value Chains, IoT Value Chains, An emerging industrial structure for IoT, The international driven global value chain and global information monopolies. M2M to IoT-An Architectural Overview– Building an architecture, Main design principles and needed capabilities, An IoT architecture outline, standards considerations.

Unit III: M2M and IoT Technology Fundamentals- Devices and gateways, Local and wide area networking, Data management, Business processes in IoT, Everything as a Service(XaaS), M2M and IoT Analytics, Knowledge Management

Unit IV: IoT Architecture-State of the Art – Introduction, State of the art, Architecture Reference Model- Introduction, Reference Model and architecture, IoT reference Model

Unit V: IoT Reference Architecture- Introduction, Functional View, Information View, Deployment and Operational View, Other Relevant architectural views. Real-World Design Constraints- Introduction, Technical Design constraints-hardware is popular again, Data representation and visualization, Interaction and remote control. Industrial Automation- Service-oriented architecture-based device integration, SOCRADES: realizing the enterprise integrated Web of Things, IMC-AESOP: from the Web of Things to the Cloud of Things, Commercial Building Automation- Introduction, Case study: phase one-commercial building automation today, Case study: phase two- commercial building automation in the future.

IV. Prescribed books:

1. Jan Holler, Vlasios Tsiatsis, Catherine Mulligan, Stefan Avesand, Stamatis Karnouskos, David Boyle, **“From Machine-to-Machine to the Internet of Things: Introduction to a New Age of Intelligence”**, 1st Edition, Academic Press, 2014.
2. Vijay Madisetti and Arshdeep Bahga, -Internet of Things (A Hands-on-Approach)l, 1stEdition, VPT, 2014.
3. Francis daCosta, -Rethinking the Internet of Things: A Scalable Approach to Connecting Everythingll, 1st Edition, Apress Publications, 2013
