JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

Faculty of Law and Governance
Department of Management and Commerce

BACHELOR OF COMMERCE (HONS)

B.COM (HONS)

SESSION – 2022-23

DURATION – 3 YEARS/ 6 SEMESTER

SYLLABUS FOR:
1-3YEARS

PROGRAM DETAIL

Name of Program - Bachelor of Commerce (B.Com.)

Program Code - B.Com.

Mode of Program - Yearly /Semester

Duration of Program - 3 yrs./6 Semesters

Curriculum Type and

Medium Choice - English

SYLLABUS DETAIL

I SEMESTER

S. No.	Credit	Name of Course
1	6	Business Organization & Management
2	6	Business Economics
3	8	Law of Contract
4	8	Fundamentals of Information Technology
5	10	Financial Accounting
6	2	English Communication
7	1	Extracurricular Activities
8	1	Community Development Activities
Total	42	

II SEMESTER

S. No.	Credit	Name of Course
1	7	Principles of Marketing
2	8	Financial Management
3	7	Basic of Company Law
4	8	Corporate Accounting
5	7	Corporate Governance &Social Responsibility
6	1	Woman Rights &Law
7	1	Extracurricular Activities
8	1	Community Development Activities
Total	40	

III SEMESTER

S. No.	Credit	Name of Course
1	7	Management Accounting
2	9	Business Mathematics &Statistics
3	7	Industrial &Labor Law
4	8	Cost &Work Accounting
5	7	Indian Financial Market
6	1	Environmental Studies &Disaster Management
7	1	Extracurricular Activities
8	1	Community Development Activities
Total	41	

IV SEMESTER

S. No.	Credit	Name of Course
1	8	Strategic Management
2	7	Direct Tax
3	8	Principles of Banking
4	8	Human Resource Management
5	8	Quantitative Techniques
6	1	Extracurricular Activities
7	1	Community Development Activities
Total	41	

V SEMESTER

S. No.	Credit	Name of Course
1	8	Essential of E Commerce
2	8	Allied Law
3	8	Auditing &Assurance
4	7	International Economics
5	7	Organizational Behavior
6	1	Extracurricular Activities
7	1	Community Development Activities
Total	40	

VI SEMESTER

S. No.	Credit	Name of Course
1	7	Research Methods in Business
2	7	Entrepreneurship Development
3	8	Goods & Service Tax
4	8	Principles of Insurance
5	8	Functional Accounting
6	1	Extracurricular Activities
7	1	Community Development Activities
Total	40	

Program Structure – I Year
1st Year consists of I, II Semester
I Semester

Nature of Course	Course Name	C
Core Management	**Business Organization & Management :** Fundamental Concept, Forms of Organization, Partnership & Joint Hindu Family	2
	Business Organization & Management : Joint Stock Company, Management Planning & Decision Making	2
	Business Organization & Management: Organizing, Delegation of Authority.	2
Core Economics	**Business Economics:** Meaning and scope of business economics, Elasticity of Demand	2
	Business Economics: Theory of Consumer Behavior, Cost of Production	2
	Business Economics: Market Structures	2
Core Law	**Law of Contract:** General Principles	2
	Law of Contract: Validity of Contract	3
	Law of Contract: Remedies	2
	10 Practice Sessions for Law of Contract in Moot Court	*1*
Core Information Technology	**Fundamental of Information Technology:** Introduction to Computers, Operating System & Windows	2
	Fundamental of Information Technology: MS Office I & II	2
	Fundamental of Information Technology: Internet & E-Commerce	2
	10 Practice Sessions of **Ms Dos Ms Windows Ms Word Ms Excel, Ms Access Ms PowerPoint Internet & E Commerce**	*2*
Core Accounting	**Financial Accounting:** Introduction to Accounting, Subsidiary & Bank Reconciliation Statement.	2
	Financial Accounting: Trial Balance, Error & Rectification, Consignment & Joint Ventures	3
	Financial Accounting: Depreciation- Provisions & Reserves	3
	10 Practice Sessions for Unit I & II , TALLY,WINGS,FOCUS in the Computer Lab	*2*
University Compulsory Course	**English Communication** : Reading and Listening: Vocabulary Building, Passages, Audio and Videos	1
	English Communication : Writing and Speaking: Grammar, Phonology, Writing Formats	1
	Extra-Curricular Activities	1
	Curriculum Training & Exposure	1
University Optional Course	Professional Activities	-
Total Credits:		**42**

Note: C represents number of Credit per Course

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

II Semester

Nature of Course	Course Name	C
Core Marketing	**Principle of Marketing:** Nature and Importance of Marketing, Consumer Behavior, Market Selection	**2**
	Principle of Marketing: Product, Pricing, Pricing Decision	**2**
	Principle of Marketing: Promotional Mix , Distribution, Personal Selling	**2.5**
	5 Practice Sessions of GD and Case Studies	**0.5**
Core Finance	**Financial Management:** Introduction, Scope & Objective of Financial Management, Time Value of Money, Financial Analysis & Planning	**3**
	Financial Management: Financing Decision, Investment Decision	**3**
	Financial Management: Management of working capital, Working Capital Decision	**2**
Core Law	**Basic of Company Law :**Incorporation and its Consequences	**2**
	Basic of Company Law : Financial Structure	**2**
	Basic of Company Law : Management and Control of Companies	**2**
	10 Practice Sessions for Company Law in Moot Court	*1*
Core Accounting	**Corporate Accounting:**Company Accounts, Issue and Forfeiture of Shares. Re-issue of shares. Issue & Redemption of Debentures & Preference shares.	**2**
	Corporate Accounting: Company Final Accounts, Underwriting of shares and debentures & Internal Reconstruction.	**3**
	Corporate Accounting: Accounts of Companies in Liquidation and Amalgamation of Companies.	**3**
Core Management	**Corporate Governance & Social Responsibility:** Conceptual Framework of Corporate Governance, Corporate Governance Framework in India	**2**
	Corporate Governance & Social Responsibility: Major Corporate Governance Failures, Whistle Blowing	**2**
	Corporate Governance & Social Responsibility: Corporate Social Responsibility	**2**
	10 Practice Sessions for 5 group discussions & 2 case comparison	*1*
University Compulsory Course	**Women Rights and Law:** Constitutional Safeguards for Women, Right to Equality	**0.5**
	Women Rights and Law: Right of Private Defense	**0.5**
	Extra-Curricular Activities	**1**
	Curriculum Training & Exposure	**1**
University Optional Course	Professional Activities	**-**
Total Credits:		**40**

Note:C represents number of Credit per Course

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

Program Structure – II Year
2nd Year consists of III, IV Semester
III Semester

Nature of Course	Course Name	C			
Core Accounting	**Management Accounting:** Introduction, Budgeting and budgetary control	2			
	Management Accounting: Standard costing and variance analysis, Absorption versus variable costing	2			
	Management Accounting: Cost-Volume-Profit Analysis, Responsibility Accounting	2			
	10 Practice Sessions for 5 group discussions & 2 case comparison	1			
Core Applied Mathematics	**Business Mathematics and Statistics:** Introduction to Statistics, Schedule and Questionnaire	1			
	Business Mathematics and Statistics: Characteristics of measures of central tendency	2			
	Business Mathematics and Statistics: Measures of Dispersion and Skewness& Measures of Relation	3			
	Business Mathematics and Statistics: Analysis of Time Series & Index Numbers	2			
	10 Practice Sessions in Computer Lab	1			
Law	**Industrial &Labour Law:** The Employees Provident Fund & Miscellaneous Provisions Act, 1952, Employees State Insurance Act, 1948	2			
	Industrial &Labour Law: Payment of Wages Act, 1936, The Payment of Bonus Act, 1965	2			
	Industrial &Labour Law: Payment of Gratuity Act, 1972, Employee's Compensation Act, 1923	2			
	10 Practice Sessions for Labour Law in Moot Court	*1*			
Core Accounting	**Cost and Works Accounting**: Basic Cost Concepts, Classification of Cost and Material Control.	2			
	Cost and Works Accounting: Labour Cost Control and Overhead	3			
	Cost and Works Accounting Methods of Costing, Process Costing	3	2.5	0	0.5
Core Finance	**Indian Financial Market:** Financial Market, Financial Services	2			

	Indian Financial Market: Capital Market and Secondary Market	**2**			
	Indian Financial Market: Mutual Funds	**2**			
	10 Practice Sessions for 5 group discussions & 2 case analysis	**1**			
University Compulsory Course	**Environmental Science & Disaster management :**Ecosystem and pollution	**0.25**			
	Environmental Science & Disaster management : Biodiversity and Conservation	**0.25**			
	Environmental Science & Disaster management : Concept and Types of Disaster	**0.25**			
	Environmental Science & Disaster management : Components and Management of Disaster	**0.25**			
University Compulsory Course	**Extra-Curricular Activities**	**1**			
	Community Development Activities	**1**			
University Optional Course	Professional Activities	**-**			
Total Credits:		**41**			

Note:

C represents number of Credit per Course

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

IV Semester

Nature of Course	Course Name	C			
Core Management	**Strategic Management:** Introduction, Environment Strategic Management Process	2			
	Strategic Management: Environmental Analysis, Value Chain Analysis.	3			
	Strategic Management: Formulation of Strategy	2			
	10 Practice Sessions for 5 group discussions & 2 case comparison	1			
Core Taxation	Direct tax – Introduction and Residential Status	2			
	Direct Tax – Five heads of Income	2			
	Direct Tax – Final calculation of Income tax (including Exemptions)	3			
Core Banking	**Principles of Banking** : Indian Banking System	2			
	Principles of Banking : Bank Balance-Sheet	2			
	Principles of Banking : Sources and Uses of Funds in Banks	2.5			
	5 Practice Sessions of E-Banking	0.5			
Core Human Resource Management	**Human Resource Management :** Evolution of HRM, Acquisition of Human Resources	2			
	Human Resource Management : Selection Process	3			
	Human Resource Management : Compensation & Maintenance	2			
	Practice session of 5 Group discussion and 5 Case Analysis in GD room	*1*			
Core Management	**Quantitative Techniques:** Matrices & Inverse of matrix	3			
	Quantitative Techniques: Probability & Assignment Problems	2			
	Quantitative Techniques: Transportation problems & Queuing Theory	3			
University Compulsory Course	**Extra-Curricular Activities**	1			
	Community Development Activities	1			
University Optional Course	Professional Activities	-	-		-
Total Credits:		40			

Note: C represents number of Credit per Course

Program Structure – III Year
3rd Year consists of V, VI Semester
V Semester

Nature of Course	Course Name	C			
Core Information Technology	**Essential of E-Commerce:** Overview of Electronic Commerce, Infrastructure, E-Payment, Electronic Data Interchange	2			
	Essential of E-Commerce: Digital Economy, E-Marketing, E-Ticketing	2			
	Essential of E-Commerce: E-Finance, E-Commerce in India, Security in E-Commerce	2			
	20 Practice Session of E-Commerce, E-Ticket, E-billing etc in Computer Lab	*2*			
Law	**Allied Law:**SEBI Act	**3**			
	Allied Law: FEMA & Competition Act	**3**			
	Allied Law: Banking Regulation Act 1949	**2**			
Core Accounts	**Auditing and Assurance :**Auditing Concepts	**3**			
	Auditing and Assurance: Audit Sampling	**3**			
	Auditing and Assurance: Company Audit	**2**			
Core Economics	**International Economics:** Opportunity Cost, Tariff & Non- Tariff Barriers	**2.5**			
	International Economics: IMF, World Bank, BRICS, SAARC **,** G-7, G-8	**2**			
	International Economics: Balance of Payments in International Market	**2.5**			
Core Management	**Organization Behavior :** Basics of Behavior ,Personality Various Models	**2**			
	Organization Behavior: Learning & Groups behavior	**2**			
	Organization Behavior: Culture and Conflict, Change	**2**			
	Practice session of 5 Group discussions and 2 Role plays	*1*			
University Compulsory Course	Extra-Curricular Activities	**1**			
	Community Development Activities	**1**			
University Optional Course	Professional Activities	**-**			
Total Credits:		**40**			

Note:C represents number of Credit per Course

VI Semester

Nature of Course	Course Name	C			
Core Management	**Research Methods in Business:** Research Design	2			
	Research Methods in Business: Sampling Design	2			
	Research Methods in Business: Parametric & Report Writing	2			
	5 Practice Sessions of Development of Questionnaires and 5 for SPSS in Computer Lab	1			
Core Commerce	**Entrepreneurship Development:** Theories & Characteristics of Entrepreneurship	2			
	Entrepreneurship Development: Promotion of a Venture	2			
	Entrepreneurship Development: Role of Entrepreneur	2			
	Practice Sessions of 5 G.D. & 2 Case study in G.D. Room	**1**			
Core Commerce	**Goods and Service tax-** Introduction	**3**			
	Goods and Service tax-Registration	**2**			
	IGST	**3**			
CORE INSURANCE	**Principles of Insurance:** Concept of Risk, Concept of Insurance	3			
	Principles of Insurance: Types of Insurance Organizations, Principles of Insurance	2			
	Principles of Insurance: Classification of Insurance, Insurance Products	2			
	10 Practice session of 5 Group discussion and 5 Cases in GD room	**1**			
Core Accounting	**Functional Accounting:** Accounts from Incomplete Records, Cash Flow Accounting	**3**			
	Functional Accounting: Valuation of Goodwill, Valuation of Shares, Departmental Accounts.	**2**			

	Functional Accounting: Financial Statements of Companies, Branch Accounts, Hire Purchase Accounts, Accounting and Auditing	**3**			
University Compulsory Course	Extra-Curricular Activities	**1**			
	Community Development Activities	**1**			
University Optional Course	Professional Activities	**-**			
Total Credits:		**40**			

Note:

      C represents number of Credit per Course

Semester-I

Business Organization and Management

(Credits 6)

Objective:
To acquaint the students with the basics of Commerce and Business; concepts and functions of Business Organization and provide them practical exposure of entrepreneurial role in business using Commerce lab work and assignments.
To acquaint the students with the Principles, functions and practice of management and provide them practical exposure giving stories of success/failure businessmen.

UNIT I
Concepts: Business, trade, industry and commerce – Business: Features of business – Trade: Classification, Aids to Trade – Industry: Classification – Commerce - Relationship between trade, industry and commerce – Business Organization: Concept - Functions of Business.
Business Organization: Forms of Business Organization – Classification – Factors influencing the choice of suitable form of organization.
Sole Proprietorship: Meaning – Characteristics – Advantages & Disadvantages –Suitability.
Partnership: Meaning – Characteristics – Kinds of partners - Registration of partnership – Partnership deed – Rights and obligations of partners. - Joint   Hindu Family Business: Characteristics – Advantages and limitations.

(Credit 2)

UNIT II
Joint Stock Company: Meaning – Characteristics – Advantages - Kinds of Companies – Difference between private and public companies – Promotion of A Company: Stages - Promoters – Characteristics – Registration – Capital subscription – Commencement of Business – Preparation of Important documents: Memorandum of Association: Significance, Clauses – Articles of Association: Contents – Prospectus: Contents – Statement in lieu of Prospectus.
Management: Meaning – Significance- Management Vs Administration – Functions of management – Levels of Management – Skills of management –Planning: Meaning – Significance – Types of Plans – Decision making & Steps in Process Decision making.

(Credit 2)

UNIT III
Organizing: Meaning – Features – the process of organization – Principles of organization - Elements of organizations – Organization chart.
Delegation of authority: Meaning - Elements – Principles – Types – Difficulties in delegation – Guidelines for making delegation effective.
Centralization – Decentralization: Meaning – Differences between delegating and decentralization.

(Credit 2)

Recommended Text Book:
Govindarajan and Natarajan: Principles of Management, PHI
Bhushan Y K: Business Organization and Management, Sultan Chand
RK Sharma and ShashiK.Gupta: Industrial Organization and Management, Kalyani
CB Gupta : Industrial Organization and Management, Sultan Chand
Suggested Readings:
Sherlekaretal: Business Organization and Management, Himalaya
Talloo: Business Organisation and Management. Tata
3. RK Sharma and ShashiK.Gupta: Industrial Organization and Management, Kalyani
4. SubbaRao P: Management and Organizational Behavior, Himalaya
Suggested Magazines:
Business World
Business India
Business Today
Yojana (Telugu & English)
Indian Journal of Commerce
Indian Journal of Accounting.

Business Economics:

(Credit 6)

Objective: To facilitate the students to learn the concepts of economics and apply them in real life situations.

Unit-I

Economic and Non - Economic Activities - Nature and scope of Business Economics - Micro and macroeconomics - Positive and normative – Inductive and deductive approaches - Reading of graphs - Concept of slope.

Demand: Meaning - Individual demand - Law of demand - Properties of demand curve - Income effect and substitution effect - Exceptions to the law of demand - Individual demand and market demand - Demand function - Determinants of demand and market demand - Shift of demand vs. movement along a demand curve - Elasticity of demand - Price elasticity: Meaning and measurement - Price elasticity and total revenue of a firm - Income elasticity - Classification of goods based on income elasticity – Cross elasticity - Classification of goods into substitutes and complements.

(Credit 2)

Unit-II

Theory of Consumer Behaviour: Indifference Curve and Properties of Indifference curve, Consumer equilibrium, Price elasticity and Price Consumption Curve, Price effect – Income and Substitution Effect, Derivation of Demand curve in case of Normal, Inferior and Giffen goods and Shape of indifference curve in case of normal goods,bads and neutrals.

Production function - Distinction between short-run and long-run - Production with one variable input - Relationship between total, marginal and average production functions - Law of variable proportion – Production with two variable inputs - Isoquants – Isocosts - Techniques of maximization of output, minimization of cost and maximization of profit - Scale of production - Economies and diseconomies of scale. Cost function - Short-run total and average costs - Long-run total and average cost.

(Credit 2)

Unit-III

Market structure: Characteristics - Perfect competition: Characteristics - Equilibrium price - Profit maximizing output in the short and long-run –Monopoly: Characteristics - Profit maximizing output in the short and long run-defects of monopoly - Monopolistic competition: Characteristics - Product differentiation - Profit maximizing price and output in the short and long-run – Oligopoly: Characteristics - Price rigidity - the kinked demand curve - Factors of Production.

(Credit 2)

Recommended Text Book:

Managerial Economics; D.N. Divwedi;Vikas Publishing House

Suggested Readings:

Managerial Economics; G S gupta; Tata McgrawHil

Law of Contract

(Credits-8)

Objective: The objective of this paper is to make students familiar with various principles of contract formation enunciated in the Indian Contract Act, 1872.

Unit–I:General Principles

Meaning and nature of contract, Offer / Proposal- Definition, Communication, Revocation, General/ Specific offer, Invitation to treat, Acceptance- Definition, Communication, Revocation, Tenders / Auctions, Consideration-Definition, Essentials, Privity of contract, Capacity to enter into a contract- Minor's position, Nature or effect of minor's agreements

(Credit:2)

Unit–II:

Validity of Contract- Free Consent, Coercion, undue influence, Misrepresentation, Fraud, Mistake, Unlawful consideration and object, Effect of void, voidable, valid, illegal, unlawful and uncertain agreements contracts, Discharge of Contracts, Performance- Time and Place of performance, Impossibility of performance and frustration, Breach – Anticipatory & Present

(Credit:3)

Unit-III:

Remedies- Damages, Kinds, Remoteness of damages, Injunction, Specific performance, Quantum Merit, Quasi Contracts

(Credit:2)

Recommended practice session:10 Practice Sessions for Law of Contract in Moot Court

(1 Credit)

Recommended Text Books:

 S K Kapoor-Contract I, CLA

 Myneni-Contract 1, Asia Law House.

Suggested Readings:

 Anson's - Law of Contract

 Bangia - Law of Contract and Specific Relief

 Cheshire and Fifoot - Law of Contract

Fundamental of Information Technology

(Credit: 8)

Objective: To impart basic knowledge about computer with application of various packages to Business and Commerce.

Unit – I

Introduction to computers:

Definition, Characteristics and limitations of computers - Elements of Computers - Hardware - CPU - Primary and Secondary memory - Input and Output devices. IT enabled services - BPO, KPO, Call centers.

Modern communications

(Concepts only)**:** Communications – FAX, Voice mail, and information services – E Mail – Creation of email id - group communication – Tele conferencing – Video conferencing – File exchange – Bandwidth – Modem – Network Topologies – Network types LAN, MAN, WAN and their architecture – Dial up access.

Operating System and Windows: Operating Systems: Meaning, Definition, Functions and Types of Operating Systems - Booting process – Disk Operating System: Internal and External Commands – Wild Card Characters – Computer Virus, Cryptology. Windows operating system - Desktop, Start menu, Control panel, Windows accessories .

(Credit: 2)

Unit – II:

MS Office I:

MS Word & Word Processing : Meaning and features of word processing – Advantages and applications of word processing - Parts of MS Word application window – Toolbars – Creating, Saving and closing a document – Opening and editing a document - Moving and copying text – Text and paragraph formatting, applying Bullets and Numbering – Find and Replace – Insertion of Objects, Date and Time, Headers, Footers and Page Breaks – Auto Correct – Spelling and Grammar checking – Graphics, Templates and wizards - Mail Merge :

Meaning, purpose and advantages – creating merged letters, mailing labels, envelops and catalogs- Working with Tables – Format Painter.

MS EXCEL:

Features of MS Excel – Spread sheet / worksheet, workbook, cell, cell pointer, cell address etc., - Parts of MS Excel window – Saving, Opening and Closing workbook – Insertion and deletion of worksheet – Entering and Editing data in worksheet – cell range – Formatting – Auto Fill –Formulas and its advantages – References : Relative, absolute and mixed – Functions: Meaning and Advantages of functions, different types of functions available in Excel – Templates –Charts – Graphs – Macros : Meaning and Advantages of macros, creation, editing and deletion of macros – Data Sorting, Filtering, validation, Consolidation, Grouping, Pivot Table and Pivot Chart Reports.

MS Office II:

MS Access - Data, Information, Database, File, Record, Fields - Features, advantages and limitations of MS Access – Application of MS Access – 10 parts of MS Access window – Tables, Forms, Queries and Reports – Data validity checks – (Theory with simple problems)

MS PowerPoint:

Features, advantages and application of Ms Power point – Parts of MS Power point window – Menus and Tool bars – Creating presentations through Auto content wizard, Templates and manually – slide show – saving, opening and closing a Presentation – Inserting, editing and deleting slides –Types of slides - Slide Views-Formatting –Insertion of Objects and Charts in slides- Custom Animation and Transition.

Multimedia:

Meaning, Purpose, Usage and application – Images, Graphics, sounds and music – Video presentation devices – Multimedia on web.

(Credit: 2)

Unit- III:

Internet & E commerce:

Services available on internet - WWW - ISP.

E commerce:

Meaning, advantages and limitations, applications of E commerce - trading stocks online, ordering products / journals / books etc., online, travel and tourism services, employment placement and job market, internet banking, auctions, online publishing, advertising-Online payment system (including practicals).

(Credit 2)

Lab Work:

PRACTICALS:

MS DOS MS WINDOWS MS WORD MS EXCEL

MS ACCESS MS POWERPOINT INTERNET & E COMMERCE.

Recommended practice session:*10 Practice Sessions of* Ms Dos Ms Windows Ms Word Ms Excel, Ms Access Ms PowerPoint Internet & E Commerce

(Credit 2)

Recommended Text Books:

Computer Fundamentals; Pradeep K. Sinha, PritiSinha; BPB Publications

Suggested Readings:

1. Introduction to Information Technology: Rajaraman, PHI

2. Fundamentals of Computers 4/E: Rajaraman, PHI

3. Fundamentals of Computers: P. Mohan, Himalaya

4. Information Technology: Dennis P. Curtin, McGraw Hill International

Financial Accounting

(Credit:10)

Objectives:
1. To make the students acquire the conceptual knowledge of accounting
2. To equip the students with the knowledge of accounting process and preparation of final accounts
3. To develop the skills of recording financial transactions and preparation of reports using computers.

UNIT-I: Introduction to Accounting:

Need for Accounting – definition, features, objectives, functions, systems and bases and scope of accounting - Book keeping and Accounting - Branches of Accounting - Advantages and limitations – Basic terminology used - Accounting concepts and conventions.

Accounting Process – Accounting cycle - Accounting equation - Classification of accounts - Rules of double entry book keeping – Identification of financial transactions - Journalizing – Posting to Ledgers - Balancing of Ledger Accounts.

(Credit 2)

Subsidiary Books and Bank Reconciliation Statement:

Sub Division of Journal: Preparation of Subsidiary Books including different types of cashbooks: Simple cashbook, cashbook with cash and discount columns, cashbook with cash, discount and bank columns, cashbook with cash and bank columns and petty cash book.

Computer lab work: Computerized Accounting , Preparation of sales register, purchase register, journal proper, debit note register, credit note register and different cash books including interest and discount transactions using computers.

UNIT-II:

Trial Balance, Final Accounts; Errors and Rectification:

Trial Balance: Meaning, objectives, methods of preparation – Final Accounts: Meaning, features, uses and preparation of Manufacturing, Trading Account, Profit & Loss Account and Balance Sheet - Adjusting and Closing entries.

Consignment: Features, terms used,proforma invoice - Account sale - Delcredere commission - Accounting treatment in the books of the consignor and the consignee - Valuation of consignment stock - Normal and abnormal loss - Invoice of goods at a price higher than the cost price.

Joint ventures: Features, difference between joint venture and consignment - Accounting Procedure – Methods of keeping records for joint venture accounts - Method of recording in co ventures books - Separate set of books method.

Computer lab work: Preparation of trial balance, trading, profit and loss account, processing of year ending and closing the books, adjusting and closing entries and balance sheet using computers.

(**Credit:3**)

UNIT III Depreciation - Provisions and Reserves:

Depreciation: Meaning – Causes - Objects of providing for depreciation - Factors affecting depreciation - Accounting Treatment - Methods of providing depreciation: Straight line method - Diminishing Balance Method.

Provisions and Reserves: Reserve Fund – Different Types of Provisions and Reserves.   **(Credit :3)**

Accounting packages: Wings, Tally, Focus.

Recommended practice session:10 Practice Sessions for Unit I & II , TALLY,WINGS,FOCUS in the Computer Lab   **(Credit:2)**

Recommended Text Books:

Financial Accounting: Concepts and Applications; Monga, J.R; Mayoor Paper Backs

Suggested Readings:

Financial Accounting- A Dynamic Approach: Bhattacharya, PHI

Accountancy-I: Haneef and Mukherjee, Tata Mcgraw Hill Co.

Principles & Practice of Accounting: R.L.Gupta&V.K.Gupta, Sulthan Chand

Accountancy-I: S.P. Jain &K.L Narang, Kalyani Publishers

English Communication

(Credit: 2)

Objective: To enable students to develop Four major skills Reading, Writing, Speaking and Listening in relevance to English culture according to time and venue.

Unit 1: Reading and Listening

Types of passages, purpose of reading, reading strategies, vocabulary building, antonyms and synonyms and one-word substitution etc.

Role of Listening, Barriers of Listening, Remedies to remove the barriers.Listening to Narratives, Listening to specific information or data, listening to Conversational contexts etc.

(Credit: 1)

Unit 2: Writing and Speaking

Subject- Verb Concord, Sentence Pattern (SVOCA), Time and Tenses. Different Letter Writing Formats: Application, Cover Letter, Notice, Report etc. Resume Building.

Introduction to the sounds of English-Vowels, Diphthongs and Consonants phonetic sounds, Introduction to Stress and Intonation, Situational Dialogues / Role Play 'Just a minute' Sessions (JAM), action verbs (play way method), Describing Objects/ Situations/ People (personality), Debates (current topics), Turn Coat, Telephonic Conversation.

(Credit: 1)

Recommended Text Books:

English Grammer and Composition; Wren and Martin; S. Chand

Suggested readings:
Phonetics by Peter Roach, Oxford University Press 2004.
Better English Pronunciation by J.D.O'Connor, OUP 2010.
Accents of English by J.C.Wells, Cambridge University Press.
English Grammar Today with CD: An A-Z of Spoken and Written
Grammar by Ronald Carter, Michael Mac Carthy, Geraldine Mark
Anne O'Keeffe, Cambridge University Press, 2009.
Alred, Gerald J. .The Business Writers Handbook. 9th ed. Boston:
Bedford/St. Martins, 2009.
GeetaJajivan, Kiranmai: Course Listening and Speaking Skills part 1. Foundation Books Pvt Ltd.
Lorven: Enrich Your Communication in English

Semester II

Principle of Marketing

(Credit:7)

Objective: The objective of this paper is to identify the foundation terms and concepts that are commonly used in marketing. It also identifies the essential elements for effective marketing practice. This course will give complete relationship between marketing and other management functions.

UNIT I

Introduction to Marketing: Nature, Scope and Importance of Marketing, Basic concepts Marketing Environment, Market Segmentation, Targeting and Positioning. Product: Product Levels, Product Mix, Product Strategy, Product innovation and Diffusion, Product Development, Product Lifecycle and Product Mix.

(Credit :2)

UNIT II

Pricing Decisions: Designing Pricing Strategies and Programmes, Pricing Techniques.

Place: Meaning & importance, Types of Channels, Channels Strategies, Designing and Managing Marketing Channel, Managing Retailing, Physical Distribution, Marketing Logistics and Supply Chain Management.

(Credit :2)

UNIT III

Promotion: Promotion Mix, Push vs. Pull Strategy; Promotional Objectives, Advertising- Meaning and Importance, Types, Media Decisions, Promotion Mix,

Personal Selling- Nature, Importance and Process, Sales Promotion – Purpose and Types; Publicity and Public Relations- Definition, Importance and Methods.

(Credit :2.5)

Recommended Practice Session: **5 Practice Sessions of GD and Case Studies**

(Credit:0.5)

Recommended Text Book:

Kotler, Armstrong, Agnihotri and Haque, (2010), Principles of Marketing- ASoutAsian Perspective, 13th edition, Pearson Education.

Suggested Readings:

Saxena, Rajan, (2008), Marketing Management, 3rd edition, McGraw Hill Education.

Kumar, Arun and Meenakshi, N., (2009), Marketing Management, Vikas Publishing House.

Russel, Winer, (2007), Marketing Management, 3rd edition, Pearson Education.

Kotler, KoshiJha, (2009), Marketing Management, 13 edition, Pearson Education.

Ramaswamy and Namkumar, S., (2009), Marketing Management Global Perspective: Indian Context, McMillan, Delhi.

Financial Management

(Credits :8)

Objectives: (a) To develop ability to analyse and interpret various tools of financial analysis and planning; (b) To gain knowledge of management and financing of working capital; (c) To understand concepts relating to financing and investment decisions; and (d) To be able to solve simple cases.

Unit I

Scope and Objectives of Financial Management:-Meaning, importance and objectives, Conflicts in profit versus value maximization principle, Role of Chief Financial Officer.

Time Value of Money Compounding and discounting techniques – concepts of annuity and perpetuity.

Leverage Analysis: Meaning; Types; Estimation of Financial; Operating and Combined Leverage.

(Credits: 3)

Unit II

Financing Decisions: - Cost of Capital – weighted average cost of capital and marginal cost of capital, Capital Structure decisions – capital structure patterns, designing optimum capital structure, constraints, and various capital structure theories.

Investment Decisions :- Purpose, objective, process, Understanding different types of projects, Techniques of decision making: payback period method, accounting rate of return, net present value, internal rate of return, modified internal rate of return, discounted payback period and profitability index.

Dividend Decisions: Meaning and Types of Dividend; Issues in Dividend Policy; Walter Model; Gordon Model; Miller and Modigliani Model.

(Credits :3)

Unit III

Management of working capital:, Operating Cycle Method, Net Current Assets Method, Projected Balance Sheet Method

Inventory management, Receivables management, Payables management, Management of cash and marketable securities, Financing of working capital.

(Credits :2)

Basic of Company Law

(Credits 7)

Unit I

Introduction

Nature and form of business enterprise; types of business enterprises; company – definition and nature.Historical development of corporate concepts; emergence of principles of limited liability and development of Company Law in England and India.Concept of corporate personality; corporate veil and its lifting.Working and administration of Company Law.

Incorporation and its Consequences

Types of companies and their incorporation; memorandum and articles of association and their alteration; registered office; publication of name; commencement of business; contracts; deeds; common seal; effect of incorporation. Re-registration and registration of unregistered joint-stock companies.The doctrine of ultra -vires, constructive notice and indoor management.Promoters- meaning and importance; position, duties and liabilities.

(Credits: 2)

Unit II

Financial Structure

Concept of capital and financing of companies, sources of capital; classes and types of shares; equity with differential rights; issue of shares at par, premium and discount; forfeiture and surrender of shares; bonus issues; rights issues; issue of sweat equity shares; employees stock option scheme; private placement. Alteration of share capital; reduction of capital; buy-back of shares.Debt capital - debentures, debenture stock, bonds; new developments in corporate debt financing; debenture trust deed and trustees; conversion of and redemption of debentures.Securing of debts – creation, modification and satisfaction of charges.Prospectus– definition; abridged prospectus; red-herring prospectus; shelf prospectus; information memorandum; contents, registration, misrepresentations and penalties. Allotment and certificates - contracts to subscribe for shares, debentures and other securities; calls; share certificates and share warrants.

Membership, Depositories and Transfer/Transmission

Membership - modes of acquiring membership; rights and privileges of members, register of members; dematerialization and rematerialisation of securities; transfer and transmission of securities in physical and depository modes; nomination.

(Credits: 2)

Unit III

Management and Control of Companies

Directors – appointment/re-appointment, qualifications, disqualifications, remuneration, vacation of office, retirement, resignation and removal; loans to directors; powers and duties; office or place of profit; role of directors; contracts in which directors are interested. Managing and whole

time directors and manager. Company secretary – appointment, role and responsibilities; company secretary as a principal officer. Meetings of directors and committees - frequency, convening, and proceedings of Board /Committee meetings; tele and videoconferencing of Board/Committee(s); resolution by circulation; minutes and evidence. General meetings - kinds of meetings; law, practice and procedure relating to convening and proceedings at general and other meetings – notice, quorum, proxy, voting including voting through electronic means, resolutions, circulation of members' resolution, etc.; postal ballot; recording, signing and inspection of minutes; role of chairman.

Distribution of powers of a company - division of powers between Board and general meetings; acts by directors in excess of authority; monitoring and management. Sole Selling and Buying Agents - Meaning, appointment and reappointment, removal; powers of Central Government and rules framed for the purpose.

(Credit 2)

Recommended Practice Sessions: *10 Practice Sessions for Company Law in Moot Court*

(Credit 1)

Corporate Accounting

(Credits 8)

UNIT I

Company Accounts: Issue of shares , Forfeiture of shares and Reissue of shares, Debentures: Issue and redemption. Meaning of share, types of share capital, accounting entries for issue of shares, over subscription of shares, under subscription of shares, calls in arrear and calls in advance

Debentures: Issue and redemption, kinds of debentures, difference between shares and debentures, accounting entries for issue and redemption of debenture.

Redemption of preference shares, methods of redemption of preference shares and accounting entries for redemption of preference shares and preparation of balance sheet after redemption of preference shares.

(Credits: 2)

UNIT II

Underwriting of shares and debentures. Accounting for Internal Reconstruction: Meaning- Alteration of Share Capital, Reduction of Share Capital- Accounting Entries and preparation of Balance Sheet after Internal Reconstruction.

(Credits: 3)

UNIT III

Accounting for Amalgamation, Absorption and External Reconstruction of Companies: Meaning- Vendor and Purchasing Companies- Purchase Consideration- Accounting entries- and Preparation of Balance Sheet after Amalgamation, Absorption and External Reconstruction. AS 14 and Amalgamation (Simple Problems only).

Accounts of companies in liquidation, methods of winding-up of company and liquidator's final statement of account.

(Credits: 3)

Recommended Text Book:

Corporate Accounting – Jain, Khandelwal, Pareek, Dave

Corporate Accounting- Agarwal, Jain, Modi, Sharma, Shah, Mangal

Suggested Readings:-

Company Accounts – S.P. Jain & K.L. Narang

Corporate Accounting – Dr. S. N. Maheshwari& S.K. Maheshwari

Corporate Accounting- Mukharji&Hanif

Corporate Governance & Social Responsibility

(Credit 7)

Objectives: To familiarize the students with the understanding of issues and practices of corporate governance in the global and Indian context.

Unit I:

Conceptual Framework of Corporate Governance – Meaning, Theories of Corporate Governance, Models of Corporate Governance, Benefits Of Good Corporate Governance, Concept of Corporate Excellence; Business Ethics; Ethical Governance, Code of Ethics; Insider Trading, Rating Agencies, Green Governance/ E-governance.

Corporate Governance Framework in India – Corporate Boards and its powers, Responsibilities, Disqualifications; Board Committees and their Functions, Remuneration Committee, Nomination Committee, Compliance Committee, Shareholders Grievance Committee, Investors Relation Committee, Investment Committee, Risk Management Committee, and Audit Committee; Clause 49 of Listing Agreement; Corporate Governance in Public Sector Undertakings.

(Credit 2)

Unit II

Major Corporate Governance Failures –Bank of Credit and Commerce International (UK), Maxwell Communication Corporation and Mirror Group Newspapers (UK), Enron (USA), World.Com (USA), Andersen Worldwide (USA), Vivendi (France), and Satyam Computer Services Ltd (India); Common Governance Problems Noticed in various Corporate Failures.

Whistle-Blowing and Corporate Governance – The Concept of Whistle-Blowing; Types of Whistle-Blowers; Whistle-Blower Policy; the Whistle-Blower Legislation across Countries**.**

(Credit 2)

Unit III

Corporate Social Responsibility (CSR) –Meaning, Corporate Philanthropy, CSR and CR, CSR and Corporate Sustainability, CSR and Business Ethics, CSR and Corporate Governance, Environmental Aspect of CSR, CSR Models, Drivers of CSR, Global Reporting Initiatives, ISO 26000

(Credit 2)

Recommended Practice Session:10 Practice Sessions for 5 group discussions & 2 case comparison

(Credit 1)

Recommended Text Books:

1. Mallin, Christine A., *Corporate Governance (Indian Edition*), Oxford University Press, New Delhi.
2. Blowfield, Michael, and Alan Murray, *Corporate Responsibility*, Oxford University Press.

Suggested Readings

1. Rani, Geeta D., and R.K. Mishra, *Corporate Governance-Theory and Practice*, Excel Books, New Delhi
2. Sharma, J.P., *Corporate Governance, Business Ethics & CSR,* Ane Books Pvt Ltd, New Delhi

Women Rights and Law

(Credits-1)

Objective: The paper aims at creating awareness as to importance and role of women in society through the medium of law. It also focuses on women welfare laws.

Unit – I:Meaning of law ,Constitutional Safeguards for Women, Right to Equality (Art-14),Life & Personal Liberty, Right to Education (Art-21,21-A), Right against Sexual Exploitation (Art-23,24), Constitutional Remedies (Writs-   Art-32-35),   Participation   in   Panchayat   and   Municipalities,   Marriage   : Conditions,Ceremonies,Registration, Restitution of Conjugal Rights, Judicial Separation, Void & Voidable Marriages, Legitimacy of Children of Void & Voidable Marriages, Punishment of Bigamy, Divorce Common Grounds for Divorce, No Petition for divorce within 1year of marriage, Divorced Person when may marry again,Maintenance: Wife, widowed daughter-in-law, Children, Amount of Maintenance , Interim Maintenance, Maintenance Provisions under Cr.PC, Adoption: Requisites of a valid adoption, Capacity of a male Hindu to take in adoption, Capacity of a female Hindu to take in adoption, Persons capable of giving in adoption, Persons who may be adopted, Effects of Adoption,.

(Credit 0.5)

Unit – II:Indian Penal Code, 1860 Right of Private Defense, Dowry Death, Abetment of Suicide, Cruelty by Husband or Relatives of Husband, Sex Selection & Causing Miscarriage, Hurt & Grievous Hurt, Wrongful Restraint & Confinement, Outraging the modesty of a woman, Kidnapping and Abduction, Offences regarding Prostitution, Rape, Bigamy, Adultery, Domestic Violence, Sex Determination Test -The Medical Termination of Pregnancy Act, 1971, The Pre-Conception and Pre-Natal Diagnostic Techniques Act, 1994, Reproductive Technologies: Meaning, Concept & Challenges of A.I, IVF & Surrogacy, Right of HIV/ AIDS Victims, Introduction to Consumer Protection Act , Tenancy Act, Right to Information Act, Motor Vehicles Act, Intellectual Property Rights, Act & Rules Maternity Benefits Act 1961.

(Credit 0.5)

Recommended Text Books:

Law relating to Women – S.R.Myneni
Law relating to Women – Dr. S.C. Tripathi
Suggested Readings:

Women and Law – Prof. NomitaAggarwal
Women and Law – Dr. ManjulaBatra
Women and Law – G.P. Reddy

SEMESTER III

Management Accounting

(Credit 7)

Objective: To provide the students knowledge about use of costing data for planning, control and decision making.

Unit I:

Introduction: Nature and Scope, Difference between cost accounting and management accounting, cost control, cost reduction, cost management.

Budgeting and budgetary control: Concept of budget and budgetary control, objectives, merits and limitations, Functional budgets, Fixed and flexible budgets, Zero base budget.

(Credit 2)

Unit II:

Standard costing and variance analysis: Meaning of standard cost and standard costing - advantages, limitations and applications. Variance analysis – material, labour, overhead, Control ratios.

Absorption versus variable costing: Distinctive features and income determination.

(Credit 2)

Unit III

Cost-Volume-Profit Analysis: Break-even analysis-algebraic and graphic methods. Contribution / sales ratio, key factor.Margin of safety.Angle of incidence.

Responsibility Accounting: Concept, Significance, Different Responsibility Centers.

(Credit 2)

Recommended Practice Session: 10 Practice Sessions for 5 group discussions & 2 case comparison

(Credit 1)

Recommended Text Books:

Management Accounting; Khan, M.Y. and P.K. Jain; Tata McGraw Hill

Suggested Readings:

Horngren, Charles T. and, Gary L. Sundem, *Introduction to Management Accounting,* Prentice Hall.
Murthy, A; and S Gurusamy*Management Accounting,* Tata McGraw Hill.
 3 Nigam, B.M. Lall and I.C. Jain, *Cost Accounting, Principles and Practice*, Prentice Hall of India, New Delhi.
 4. Lal, Jawahar and SeemaSrivastava, *Cost Accounting*, Tata McGraw Hill Publishing Co., New Delhi.

Business Mathematics and Statistics

(9 Credit)

UNIT-I: Introduction to Statistics:
Meaning, definition, Importance and limitations of statistics - Collection of data - Primary and Secondary data. Sampling (Random, Non Random) - Census - Schedule and questionnaire –Frequency distribution – Tabulation.

(Credit 1)

Computer lab work: Diagrammatic and graphic presentation of data using Computers-Excel

UNIT - II: Measures of Central Tendency
Definition, objectives and characteristics of measures of central tendency -Types of Averages: Arithmetic Mean, Geometric Mean, Harmonic Mean, Median, Mode, Deciles, Percentiles, Properties of averages and their applications.

(**Credits 2**)

Computer lab work: Calculation of averages using computers.

UNIT - III: Measures of Dispersion and Skewness& Measures of Relation:
Dispersion: Meaning, Definitions, Properties – Types: Range, Quartile Deviation, Mean Deviation, Standard Deviation, Coefficient of Variation. Skewness: Definition - Karl Pearson's and Bowley's Measures of Skewness - Normal Distribution.
Correlation: Meaning uses – Types of correlation - Karlpearson's correlation coefficient

Computer lab work: Calculation of Dispersion and skewness using Computers, Calculation of trend and seasonal variations using computers

(Credits 3)

UNIT - IV: Analysis of Time Series & Index Numbers:
Time Series Analysis: Meaning and utility - Components of time series -
Measurement of trend and seasonal Variations – Utility of decomposition of
Time series - Decentralization of data.
Computer lab work: Spearman's Rank correlation - Probable error -Calculation of Correlation by using computer, Calculation of trend and seasonal variations using
      Computers

(Credit 2)

Recommended Practice Session: 10 Practice Sessions in Computer Lab

(Credit 1)

Recommended Text Books:

Mathematics for Business Studies; Thukral, J.K; Mayur Publications

Suggested Readings:
1. Vohra, N.D., *Business Statistics*, McGraw Hill Publishing Co.
2. Sharma, J.K., *Business Statistics*, Pearson Education.
3. Levine Krehbeil, Berenson and Viswanathan, *Business Statistics: A first course,* Prentice Hall.
4. Thukral, J.K., *Mathematics for Business Studies*, Mayur Publications.

Industrial & Labour Law

(Credit 7)

Objectives: To familiarize the students with the understanding and provisions of industrial related laws. Case studies and problems involving issues in industrial laws are required to be discussed.

Unit I:

The Employees Provident Fund & Miscellaneous Provisions Act, 1952

Definitions; Schemes under the Act – Employees' Provident Fund Scheme; Employees' Pension Scheme, 1995; Employees' Deposit linked Insurance Scheme.

Employees State Insurance Act, 1948

Objects and Applicability of the Scheme; Definitions: Personal Injury, Factory, Manufacturing Process, Wages, Partial and Permanent Disablement; ESI Corporation, Standing Committee and Medical Benefit Council; Contributions; Adjudication of Dispute and Claims, Benefits.

(Credit 2)

Unit II:-

Payment of Wages Act, 1936

Definitions – Employed Person, Employer, Factory, Industrial or other Establishment, Wages; Responsibility for Payment of Wages; Fixation of Wage Period; Time of Payment of Wages; Mode of Payment; Deductions from Wages and Fines.

The Payment of Bonus Act, 1965

Definitions – Accounting year, allocable surplus, available surplus, employee, employer, establishments, salary or wage; determination of bonus, calculation of bonus, eligibility for bonus, disqualifications for bonus, payment of minimum and maximum bonus, set on and set off of allocable surplus, deductions of certain amounts from bonus payable, time limit for payment of bonus.

(Credit 2)

Unit III:

Payment of Gratuity Act, 1972
Applicability and non- applicability of the Act; Definitions-employee, employer, continuous service; payment of gratuity; forfeiture of gratuity; employer's duty to determine and pay gratuity; recovery of gratuity; penalties.
Employee's Compensation Act, 1923
Definitions: dependent, employer, partial and total disablement, workmen, injury, accident; employer's liability for compensation; amount of compensation; contracting; commissioner; case laws.

(Credit 2)

Recommended Practice Session:10 Practice Sessions for Labour Law in Moot Court

(Credit 1)

Recommended Text Books:
Industrial Relations &Labour Laws; Srivastava, S.C;Vikas Publishing House (P) Ltd
Suggested Readings:
1. Malik, K.L., *Industrial Laws and Labour Laws*, Eastern Book Company, Lucknow.
2. Kumar, H.L., *Digest of Labour Cases*, Universal Law Publishing Co P Ltd, New Delhi
3. Srivastava, S.C., *Industrial Relations &Labour Laws,* Vikas Publishing House (P) Ltd.
4. Sharma, J.P., *Simplified Approach to Labour Laws,* Bharat Law House (P) Ltd., New Delhi.

Cost & Works Accounting

(Credits: 8)

Objective: The primary objective of the course is to familiarize the students with the basic cost concepts, allocation and control of various costs and methods of costing.

UNIT I

Meaning and Scope of Cost Accounting: Basic Cost Concepts – Elements of Costs, Classification of Costs, Cost Sheet.

Materials Control: Meaning – Steps Involved – Materials and Inventory – Techniques of Material/Inventory Control – Valuation of Inventory – Material Losses.

(Credits 2)

UNIT II

Labour Cost Control**:** Direct and Indirect Labour, Steps Involved – Treatment of Idle Time, Holiday Pay, Overtime etc. in Cost Accounts, Casual Workers & Out Workers, Labour Turnover, Methods of Wage Payment. Incentive Plans.

Overheads: Meaning and Classification of Overheads – Treatment of Specific Items of Overheads in Cost Accounts – Stages Involved in Distribution of Overheads – Methods of Absorption of Overheads – Treatment of Under and Over Absorption of Overheads.

(Credits 3)

UNIT III

Methods of Costing: Single Output Costing, Job Costing, Contract & Batch Costing.
Process Costing (including Joint Products and By-products and Inter-process Profits), Operating/Service Costing. (Transport & Power House only);

(Credits 3)

Recommended Text Book

Maheshwari, S. N. and Mittal, S. N. (2009), Cost Accounting – Theory and Problems, 22nd Revised Edition, ShriMahavir Book Depot.

Rajasekaran, (2010), Cost Accounting, 1st edition, Pearson Education.

Suggested Readings:

Dutta, Mahesh, (2006), Cost Accounting - Principle Practices, 1st edition, Pearson Education.

Arora, M.N., (2009), Cost Accounting, Vikas Publishing House.

Lal, Jawahar and Srivastava, Seema, (2008), Cost Accounting, 4th Edition, McGraw Hill

   Education.

Jain and Narang, (2008), Cost Accounting, Kalyani Publishers.

Indian Financial Market:

(Credit 7)

Objectives:

1. To give the students an overall idea about Indian financial markets.

2. To familiarize the students with financial market operations in India.

Unit-I

Financial System - Meaning – structure of Indian financial system – financial markets –

financial institutions – financial instruments – financial services.

Financial Market – structure – money Market – capital Market – market for mortgages –

market for financial guarantees – foreign exchange market.

Financial Services-meaning, various types and features **(Credit 2)**

Unit-II

Capital Market - structure – primary market – meaning – methods and procedure of

public issue – book building process – role of intermediaries.

Secondary Market- functions of stock exchanges – securities traded in the stock exchange – major stock exchanges in India – BSE, NSE – trading procedure – online trading –dematerialization of securities – depositories – rolling settlement – derivatives trading – types of investors – speculation – insider trading – stock market indices – role of SEBI in regulating capital market

(Credit 2)

Unit-III

Mutual Funds – meaning – classification of mutual fund schemes – open ended schemes

– closed ended schemes – sectoral funds – exchange traded funds – money market mutual funds.

Bancassurance **(Credit 2)**

Recommended Practice Session:10 Practice Sessions for 5 group discussions & 2 case analysis

(Credit 1)

Recommended Text Books: Indian Financial system Markets; K. Soji Kumar & Alex Methew; Tata McGraw Hill

Suggested Readings

Gupta N.K and Monica Chopra.*Financial Markets, Institutions and Services*, Ane

Books India, New Delhi.

YogeshMaheswary .*Investment Management*, PHI, New Delhi.

Kevin S .*Security Analysis and Portfolio Management* ,PHI, New Delhi.

PreethiSingh .*Dynamics of Indian Financial System*, Ane Books Pvt. Ltd., New Delhi.

ENVIRONMENTAL SCIENCE AND DISASTERMANAGEMENT

(Credits: 1)

Objective: To enable students to aware about the Environmental Science for sustainable development and also about the Disaster Management for precautionary as well as rescue purpose.

UNIT I : (Ecosystem and pollution)
Theory
Environmental Science and Ecosystem: Definition, scope and importance, Concept of Ecosystem, Ecological Pyramids, and Functions of Ecosystem: brief idea of energy flow. Environmental Pollution and other Problems: Definition, Causes, Effect, Control and preventive measures of air, water, noise, nuclear pollution. Global problems: Climate change, global warming, Ozone layer depletion and Acid Rain.

(Credit: 0.25)

UNIT II : (Biodiversity and Conservation)
Theory
Biodiversity and its Conservation: Definition, Types and Importance, Spots of Biodiversity, Endangered and Endemic Species of India, Threats to Biodiversity, Habitat loss, Poaching of wild life, Conservation of Biodiversity: Brief idea of *in situ* and *ex situ* conservation of Biodiversity.   Brief idea of Natural Resources and their conservation

(Credit: 0.25)

UNIT III: (Concept and Types of Disaster)
Theory
Concept and definitions (Disaster, Hazard, Vulnerability, Resilience, Risks), Disaster: classification, causes, impacts (including social, economic, political, environmental, health, psychosocial, etc), Differential impacts-in terms of caste, class, gender, age, location, disability, Global trends in disasters, urban disasters, pandemics, complex emergencies, climate change, Disaster cycle-its analysis, phases, culture of safety, prevention, mitigation, and preparedness, community based DRR, Structural –non structural measures, roles and responsibilities of community, Panchayati Raj Institutions/Urban Local Bodies (PRIs/ULB,s) states, Centre and other stake-holders.

(**Credit: 0.25**)

UNIT IV (Components and Management of Disaster)
Theory
Factors affecting Vulnerabilities, differential impacts, impact of development projects such as Dams, embankments, changes in Land use etc, Climate change Adaptation, Relevance of indigenous knowledge, appropriate technology and local resources, Disaster risk Management in India: Hazard and Vulnerability profile of India, Components of Disaster Relief: Water, Food, Sanitation, Shelter, Health, Waste Management, Institutional arrangements (Mitigation, Response and Preparedness, DM Act and Policy, Other related policies, plans, programs and legislation, Project Work: (Field Work, Case Studies)

(**Credit: 0.25**)

Recommended Text Books:
 "Disaster Management (2003)"- H.K. Gupta
Elements of Environmental Science (2012) Kaushik and Kaushik
Suggested readings:
P. Bakre, V. Bakre and V. Wadhwa. 2005. ParyavarniyaAdhyyan. Rastogi Publications, Meerut.
E. Bharucha. 2005. Environmental Studies. University Press, Hyderabad.
G.R. Chatisel and H. Sharma. 2005. A Text Book of Environmental Studies. Himalaya Publishing House, Delhi.
J.P. Sharma. 2005. Environmental Studies. Laxmi Publications Ltd., Jalandhar.
S.V.S. Rana. 2007. Environmental Studies. Rastogi Publications, Meerut.
P.D.Sharma .2008.Environmental Science.RastogiPublication , Meerut.

IV Semester

Strategic Management

(**Credits 8**)

Objective: The course aims to acquaint the students with the nature, scope and dimensions of Business Policy and Strategy Management Process.

UNIT I
Introduction: Nature, Scope and Importance of Business Policy; Evolution; Forecasting, Long-Range Planning, Strategic Planning and Strategic Management.
Strategic Management Process: Formulation Phase – Vision, Mission, Environmental Scanning, Objectives and Strategy; Implementation phase – Strategic Activities, Evaluation and Control.

(Credits: 2)

UNIT II
Environmental Analysis: Need, Characteristics and Categorization of Environmental Factors; Approaches to the Environmental Scanning Process – Structural Analysis of Competitive Environment; ETOP a Diagnosis Tool.
Analysis of Internal Resources: Strengths and Weakness; Resource Audit; Strategic Advantage Analysis; Value-Chain Approach to Internal Analysis;
Methods of Analysis and Diagnosing Corporate Capabilities – Functional Area Profile and Resource Deployment Matrix, Strategic Advantage Profile; SWOT analysis.

(Credits: 3)

UNIT III
Formulation of Strategy: Approaches to Strategy formation;
Major Strategy options – Stability, Growth and Expansion, Diversification, Retrenchment, Mixed Strategy;
Choice of Strategy – BCG Model; Stop-Light Strategy Model; Directional Policy Matrix (DPM) Model,
Product/Market Evolution – Matrix and Profit Impact of Market Strategy (PIMS) Model;
Major Issues involved in the Implementation of strategy: Organization Structure; Leadership and Resource Allocation.

(Credits: 2)

Recommended Practice Session:

(Credit 1)

Practice Sessions of 5 GD & 5 Case Studies
Recommended Text Book:
Arthur, A, Thomson and Strickland, A. J. (2002). Strategic Management – Concept and Cases.Tata McGraw Hill, New Delhi.
Suggested Readings:
Glueck, W. T. and Lawrence, R. Jauch (2003).Business Policy and Strategic Management. Frank Bros & Co.
AzharKazmi (2004). Business Policy and Strategic Management.Tata McGraw Hill, New Delhi.
Henry, Mintzberg, Bruce, Ahlstrand and Joseph, Lampel (1998).Strategy Safari. Free Press, New York.
Gary, Hamel and Prahalad, C. K. (1999).Competing for the Future.HBS Press.

Direct Tax

(**Credits 7**)

UNIT I
- **i)** Introduction and Definitions relating to income tax, Scope of Total Income , Incomes exempted from Tax, Casual Income, Agricultural Income, Deductions from gross total income,
- **ii)** Residential status and incidence of tax, Various Income Tax Authorities- powers and functions

(Credit 2)

UNIT II
- i) income from salaries, fully taxable allowances, partly taxable allowances, fully tax free allowances, earned leave, gratuity, pension, Provident fund, Perquisites taxable for all employees, perquisites taxable for specified employees, perquisites exempt from tax for all employees,
- ii) Income from House property, Concept of Deemed owner, taxable income from house property, exempted income from house property, determination of net annual value.

(Credit 2)

UNIT III

- i) Profits and gains from business and profession, Scope of income from business and profession, Income from speculation and gambling, taxable income from business and profession, exempted income from business and profession, deduction for expenses, expenses expressly disallowed, Capital gains and income from other sources.
- ii) Clubbing of Income, Set Off and Carry forward of Losses, Basic concept of Tax deduction at source (TDS) Appeal and various Appellant Authorities.

(Credit 3)

Recommended Text Book:
- Ahuja, G.K & Gupta, Ravi., (2021), "Systematic Approach to Income Tax", Bharat Law House, Allahbad
- Ahuja, G.K & Gupta, Ravi., (2021), "Simplified Approach to Income Tax", Bharat Law House, Allahbad

Suggested Readings:

- Iyenger, A.C. Sampat, (1981), "Law of Income Tax", Bharat Law House, Allahabad.
- Kanga, J.B. and Palkhivala, N.A., "Income Tax Bombay", Vol.1-3, N.M. Tripathi.
- Ranina, H.P., (1985), "Corporate Taxation: A Handbook", 2nd Ed. Oriental Law House, New
- Delhi.
- Singhania, V. K., (1991), "Direct Taxes: Law and Practice", Taxman, Delhi.
- Srinivas, E.A., (1986), "Handbook of Corporate Tax Planning", Tata McGraw Hill, New Delhi.

Principles of Banking

(Credits: 7)

Objective: The course has been designed to develop understanding of basic concepts of banking and career opportunities available after this course.

UNIT I

Indian Banking System: Evaluation of Banking Institutions; Banking System of India;

Different Banking Institutions in India, their role and functions;

Regulatory framework of Banking in India;

Functions of Commercial Banks; Sound Commercial Banking principles.

(Credits: 2)

UNIT II

Bank Balance-Sheet; Basic operations of Banks; Bankers; Customer relationship;

Payment and Collection of cheques and other negotiable instruments; opening of accounts of various types of customers.

Loans and Advances: Principles of sound bank lending; Different types of loans; Credit appraisal techniques; Credit management and credit monitoring;

(Credits :2)

UNIT III

Sources and Uses of Funds in Banks; Value Chain Analysis in Banking Industry.

Emerging trends in Banking: Universal Banking, Venture Capital, Project Financing, Merchant Banking, E-Banking, Credit Cards, Banking Ombudsman Scheme. **(Credits :2.5)**

Recommended Practice Session: **(Credit 0.5)**

5 Practice Sessions of E-Banking.

Recommended Text Book:

Sundaram&Varshney, " Banking, Theory Law and Practice" Sultan chand& sons;2004

Chaturvedi D.D., Anand Mittal, " Business Economics-II", Brijwasi Book Distributors;2005

Varshney&Malhotra, "Principles of Banking",Sultan Chand & Sons, 2005.

Suggested Readings:

Vaish M.C, *"Money, Banking and International Trade"*, New Age International Pvt.Ltd, 1997

Gordon.E, Natarajan.K.,*"Banking, Theory, Law & Practice",* Himalaya Publishing House, 2003.

Human Resource Management

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(Credit 8)

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Objective: The objective of the paper is to make student aware of the various functions and importance of the HR department in any organization. It is basically concerned with managing the human resources, whereby the underlying objective is to attract retain and motivate the human resources in any organization, which is the most challenging and daunting look for any organization today.

UNIT I: Evolution of HRM, Acquisition of Human Resources
Introduction: Meaning, scope, objectives and functions of HRM; Importance of Human Resource Management; Environment of HRM: Role of government, internal and external forces; Human Resource Management practices in India. Human Resource Planning: Definition, objectives, process and importance; Case Studies, Group Discussion, Presentation and Seminars, Business games and quiz based on the topics of unit.

<div align="right">

(Credits 2)

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UNIT II: Selection Process
- Job analysis, description, specification & job evaluation;
- Recruitment, selection, placement and induction process;
- Human Resource Development: Concept, Employee training & development; promotions, demotions, transfers, separation, absenteeism & turnover;
- Job Compensation: Wage & salary administration, incentive plans & fringe benefits.
- Case Studies, Group Discussion, Presentation and Seminars, Business games and quiz based on the topics of unit.

<div align="right">

(Credits 3)

</div>

UNIT III: Compensation & Maintenance
- Performance Management: Concept & process, performance appraisal, Potential appraisal;
- Quality of work life (QWL): Meaning, techniques for improving QWL.
- Quality circles: concept, structure, role of management; Job satisfaction and morale.
- Industrial Relations: Concept and theories, trade unions; Health, Safety & Employee welfare measures; Employee grievances and discipline, participation & empowerment; Introduction to collective bargaining.
- Case Studies, Group Discussion, Presentation and Seminars, Business games and quiz based on the topics of unit.

<div align="right">

(Credits 2)

</div>

Recommended practice session:Practice session of 5 Group discussion and 2 Case Analysis in GD room

<div align="right">

(credit:1)

</div>

Recommended Text Book:
Personnal Management (Text and Cases) C.B. Mamoria& V.S.P. Rao, Himalaya Publishing House

Suggested Readings:
Human Resource Management- Perspectives For The New Era**:** Sage Publications (i) P. Ltd
V.S.P. Rao: Resources Management, Excel Publishing, New Delhi
Edwin B. Flippo: Personnel Management, Tata McGraw Hill.
ArunMonappa&Saiyadain: Personnel Management, Tata McGraw Hill
Human Resource Management by C B Gupta: Sultan Chand (2008)

Quantitative Techniques

(Credit : 8)

Objective: The objective of this paper is to develop student's familiarity with the basic concept and tools in quantitative techniques. These techniques assist specially in resolving complex problems serve as a valuable guide to the decision makers.

UNIT I

Quantitative techniques: Introduction, importance, limitations. Matrices: Types of matrices, matrix algebra, addition, subtraction and multiplication of matrices, determinants, minors and co-factors,

Inverse of matrix, solution of linear equation by Cramer's and Inverse method and applications of matrices.

(Credits : 3)

UNIT II

Probability**:** Basic concepts, definition, additional and multiplication laws of probability, Bayes' theorem, conditional probability; Theoretical Distributions, Binomial, Poisson and Normal Distribution.

Assignment Problems: Formulation in the form of matrix, Hungarian method of assignment problem, Balanced, Unbalanced, Maximization, Mixed and Restriction problem in assignment.

(Credits: 2)

UNIT III

Transportation problems: General Structure of Transportation Problem, Different Methods for Finding Initial Solution by North-West Corner Rule, Least Cost Method and Vogel's Approximation Method, Testing for Optimality by MODI Method.

Queuing Theory: Queuing Model, Definition of Terms, Characteristics of a Queuing system, Solution of Queuing Model, Single server queuing model only. **(Credits: 3)**

Recommended Text Book:

S.P. Gupta: Statistical Methods, Sultan Chand & Sons, New Delhi.

V.K. Kapoor: Operations Research, 7th Sultan Chand

Suggested Readings:

J.K. Sharma: Business Statistics, Pearson Publication, New Delhi.

P.N. Arora& S. Arora: Statistics for Management, S. Chand &Co., New Delhi.

M.P. Gupta & S.P. Gupta: Business Statistics, Sultan Chand & Sons, New Delhi.

R.S. Bhardwaj: Business Statistics, Excel Publishers.

SEMESTER V

Essentials of E-Commerce

(Credit: 8)

UNIT I

Overview of Electronic Commerce (EC):

Concept, features, and functions of e-commerce, e-commerce practices v/s traditional practices, scope and limitations of e-commerce.

Fundamental of e-commerce:

Definition and types of e-commerce: B2B, B2C, C2C, and P2P, B2B service provider, e-distributor, procurement and just-in-time delivery

Infrastructure:

Internet and its role in e-commerce, procedure of registering Internet domain, establishing connectivity to Internet, tools and services of Internet.

E-Payment:

Transactions through Internet, requirements of e-payment systems, functioning of debit and credit cards, pre and post payment services.

Electronic Data Interchange:

Evolution, uses, Benefits, Working of EDI, EDI Standards (includes variable length EDI standards)

(Credit 2)

UNIT II:

Digital economy:

Major characteristics, economic rules, impact on trading and intermediaries, impact on business processes and functional areas in banking, financial and insurance organizations.

E-Marketing:

Market place v/s Market space, impact of e-commerce on market, marketing issues in e-marketing, direct marketing, one-to-one marketing

E-Ticketing:

Online booking systems, online booking procedure of railways, airlines, tourist and religious places, hotels and entertainment industry

(Credit 2)

UNIT III:

E-Finance:

Areas of e-finance, e-banking, traditional v/s e-banking, trading v/s e-trading, importance and advantages of e-trading, operational aspects of e-trading

E-Commerce in India:

State of e-commerce in India, problems and opportunities in e-commerce in India, legal issues, Social and Ethical Issues, future of e-commerce, Mobile Commerce.

Security in e-commerce:

Setting up Internet security, maintaining secure in Formation, encryption, digital signature and other security measures.

(Credit 2)

Recommended Practice Session: *20 Practice Session of E-Commerce, E-Ticket, E-billing etc in Computer Lab*

(Credit 2)

Recommended Text Books:

E-Commerce: A Managerial Perspective; Micheal change; Prentice Hall

Suggested Readings:

Daniel Amor, E Business R(Evolution), Pearson Edude.

Krishnamurthy, E-Commerce Management, Vikas Publishing House.

David Whiteley, E-Commerce: Strategy, Technologies and Applications, Tata McGraw Hill.

P. T. Joseph, E-Commerce: A managerial Perspectives, Tata McGraw Hill.

Doing Business on the Internet E-COMMERCE (Electronic Commerce for Business): S.

Jaiswal, Galgotia Publications.

C.S.V.Murthy: E-Commerce-Concepts, Models & Strategies, Himalaya Publishing.

Kamalesh K Bajaj &Debjani Nag: E-Commerce, the Cutting Edge of Business- Tata McGraw-

Hill, New Delhi

Allied Laws

(Credit 8)

Unit I

An overview of the following laws –

(a) The Securities and Exchange Board of India Act,1992, Rules, Regulations and Guidelines issued there under, Introduction, History of the Legislation, Purpose of the Act, Establishment of SEBI (Board), Powers & Functions of SEBI,

(b) The Securities Contracts (Regulation) Act, 1956 , Highlights of Legislation on Securities Laws, Recognition of Stock Exchanges, Power of Central Government to Make Rules.

(Credit 3)

Unit II

The Foreign Exchange Management Act, 1999, Regulation & Management of Foreign Exchange,

The Competition Act, 2002, Object behind the enactment of the Competition Act, 2002. Competition Commission in India, Duties, Powers & Functions of Commission.

(Credit 3)

Unit III

The Banking Regulation Act, 1949, the Insurance Act, 1938.The Insurance Regulatory and Development Authority Act, 1999.The Securitizations and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002. The Prevention of Money Laundering Act, 2002

Interpretation of Statutes, Deeds and Documents

(Credit 2)

Recommended Text Books:

Corporate & Allied Laws; P.P.S.GOGNA; S.Chand

Suggested Readings:

Corporate & Allied Laws; TejpalSheth; Pearson

AUDITING AND ASSURANCE

(CREDITS: 8)

Objective: To understand objective and concepts of auditing and gain working knowledge of generally accepted auditing procedures and of techniques and skills needed to apply them in audit and attestation engagements and solving simple case-studies.

UNIT I

Auditing Concepts – Nature and limitations of Auditing, Basic Principles governing an audit, Ethical principles and concept of Auditor's Independence, Relationship of auditing with other disciplines.

Auditing and Assurance Standards – Overview, Standard-setting process, Role of International Auditing and Assurance Standards Board and Auditing and Assurance Standards Board in India.

Auditing engagement – Audit planning, Audit programme, Control of quality of audit work–Delegation and supervision of audit work.

Documentation – Audit working papers, Audit files: Permanent and current audit files, Ownership and custody of working papers.

Audit evidence – Audit procedures for obtaining evidence, Sources of evidence, Reliability of audit evidence, Methods of obtaining audit evidence, Physical verification, Documentation, Direct confirmation, Re-computation, Analytical review techniques, Representation by management.

Internal Control – Elements of internal control, Review and documentation, Evaluation of internal control system, Internal control questionnaire, Internal control check list, Tests of control, Application of concept of materiality and audit risk, Concept of internal audit.
Internal Control and Computerized Environment, Approaches to Auditing in Computerised Environment.

(Credits :3)

UNIT II

Audit Sampling – Types of sampling, Test checking, Techniques of test checks.

Analytical review procedures.

Audit of payments – General considerations, Wages, Capital expenditure, Other payments and expenses, Petty cash payments, Bank payments, Bank reconciliation.

Audit of receipts – General considerations, Cash sales, Receipts from debtors, Other Receipts.

Audit of Purchases – Vouching cash and credit purchases, Forward purchases, Purchase returns, Allowance received from suppliers.

Audit of Sales – Vouching of cash and credit sales, Goods on consignment, Sale on approval basis, Sale under hire-purchase agreement, Returnable containers, Various types of allowances given to customers, Sale returns.

Audit of suppliers' ledger and the debtors' ledger – Self-balancing and the sectional balancing system, Total or control accounts, Confirmatory statements from credit customers and suppliers, Provision for bad and doubtful debts, Writing off of bad debts.

Audit of impersonal ledger – Capital expenditure, deferred revenue expenditure and revenue expenditure, Outstanding expenses and income, Repairs and renewals, Distinction between reserves and provisions, Implications of change in the basis of accounting.

(Credits :3)

UNIT III

Audit of assets and liabilities.

Company Audit – Audit of Shares, Qualifications and Disqualifications of Auditors, Appointment of auditors, Removal of auditors, Powers and duties of auditors, Branch audit, Joint audit, Special audit, Reporting requirements under the Companies Act, 1956.

Audit Report – Qualifications, Disclaimers, Adverse opinion, Disclosures, Reports and certificates.

Special points in audit of different types of undertakings, i.e., Educational institutions, Hotels, Clubs, Hospitals, Hire-purchase and leasing companies (excluding banks, electricity companies, cooperative societies, and insurance companies).

Features and basic principles of government audit, Local bodies and not-for-profit organizations, Comptroller and Auditor General and its constitutional role.

(Credit: 2)

International Economics

(Credit 7)

Unit 1:

Importance of Trade and Trade Theories Importance of the study of international economics; Inter regional and international trade; Theories of absolute cost advantage, comparative cost advantage , opportunity cost, theory of reciprocal demand, Heckhscher Ohlin theory of trade its main features, Assumptions and limitations.

(Credit 2.5)

Unit 2:

Trade and Development Terms of Trade: Concept, Types and determination Singer Prebisch thesis; Foreign trade multiplier: Concept, Working and Limitations; Major economic Issues discussed in the conferences of UNCTAD; Functions of World Bank World Bank and developing countries, objective and functions of IMF.

(Credit 2)

Unit 3:

Free trade vs. Protection; Methods of Protection: Tariff Quota and others; Types of Tariff and quota; Effects of Tariff and Quota (partial equilibrium analysis); Concept of Optimum Tariff; GATT: Various rounds of negotiations and main provisions (Overview); Functions of WTO.

Trends of foreign trade in India; Recent changes in the composition and direction of foreign trade in India; Causes and effects of persistent deficit in the balance of payments in India ; Instruments of export promotion and recent export and import policies of India.

(Credit 2.5)

Recommended Text Books:

International Economics; Kindlberger; Homewood

Suggested Readings:

Kindlberger, C.P. (1973), *International Economics*, R.D. Irwin, Homewood.

Krugman, P.R. and M. Obstgeld (1994), *International Economics: Theory and Policy* Glenview, Foresman.

Salvatore, D.L. (1997*), International Economics,* Prentice -Hall, Upper Saddle River, N.J.

Sodersten, Bo, *International Economics,* Macmillan Press Ltd., London.

Organizational Behavior

(Credits: 7)

Objective: The course aims to provide an understanding of basic concepts, theories and techniques in the field of human behaviour at the individual, group and organizational levels in the hanging global scenario. The course must be taught using case study method.

UNIT I

Introduction: Concept and nature of Organizational behaviour; Contributing disciplines to the field of O.B.; O.B. Models; Need to understand human behaviour; Challenges and opportunities.
Individual & Interpersonal Behaviour: Biographical Characteristics; Ability; Values;
Attitudes- Formation, Theories, Organization Related Attitude, Relationship between Attitude and Behavior;
 Personality – Determinants and Traits; Emotions;

(Credit :2)

UNIT II

Learning-Theories and Reinforcement Schedules, Perception –Process and Errors.
Interpersonal Behavior: Johari Window; Transactional Analysis – Ego States, Types of Transactions, Life Positions, Applications of T.A.
Group Behavior & Team Development: Concept of Group and Group Dynamics; Types of Groups;
Formal and Informal Groups; Stages of Group Development, Theories of Group Formation; Group Norms, Group Cohesiveness;

(Credit :2)

UNIT III

Group Think and Group Shift. Group Decision Making; Inter Group Behaviour;
Concept of Team Vs. Group; Types of Teams; Building and Managing Effective Teams.
Organization Culture and Conflict Management: Organizational Culture- Concept, Functions,
Socialization; Creating and sustaining culture; Managing Conflict – Sources, Types, Process and Resolution of Conflict;
 Managing Change; Resistance to Change, Planned Change. Managing Across Cultures; Empowerment and Participation.

(Credit:2)

Recommended practice session: Practice session of 5 Group discussions and 2 Role plays

(Credit:1)

Recommended Text Book

Robbins, S.P. and Sanghi, S., (2009), Organizational Behaviour; 13th edition, Pearson Education.
Singh, Kavita, (2010), Organizational Behaviour: Text and Cases, 1st edition, Pearson Education.
Suggested Readings:

Luthans, Fred, (2008), Organizational Behavior, 11th Edition, McGraw Hill Education.
Mcshane, Steven, Von, Glinow and Sharma, Radha, (2008), OrganisationalBehaviour, 4th Edition, McGraw Hill Education.
Kinicki, Angelo and Kreitner, Robert, ((2005)), OrganisationalBehaviour, 2nd Edition, McGraw Hill Education.

VI Semester

Research Methods in Business

(Credits :7)

Objective: To equip the students with the basic understanding of the research methodology and enable them to use appropriate tools and techniques for solving research problems and produce good quality research reports.

UNIT I

Defining Research Methodology, Objectives of conducting research in business, Steps in Business Research.

Research Design: Formulating the research problem, choice of research design, types of research design,

Sources of experimental errors.Methods of Data Collection – Primary and Secondary Data.

(Credits: 2)

UNIT II

Sample and Sampling Design: Basic Terms, Advantages and limitations of sampling, Sampling process,

Types of sample design, Testing of hypothesis, Sampling distribution of the mean.

(Credits: 2)

UNIT III

Overview of Parametric (chi-square test, t-test) and Non-Parametric tests (run test, sign test, chi-square test),

Interpretation and Report Writing

(Credits: 2)

Recommended practice session: 5 Practice Sessions of Development of Questionnaires and 5 for SPSS in Computer Lab

(**Credit: 1**)

Recommended text book:

C.R. Kothari: Research Methodology, Viswas Publication Pvt. Ltd.

Suggested Reading:

Rao S., Research Methodology, Excel Publishing House, New Delhi

R.S. Khandelwal and Gupta : Research Methods

Entrepreneurship Development

(**Credits:** 7)

Objective: It provides exposure to the students to the entrepreneurial cultural and industrial growth so as to prepare them to set up and manage their own smll units.

UNIT I

Introduction: The Entrepreneur: Definition, Emergence of Entrepreneurial Class; Theories of Entrepreneurship.

Characteristics of an Entrepreneur – Why Start an Enterprise; Entrepreneur as an Inventor, Innovator, and Imitator; Difference Between an Entrepreneur and A Manager; Functions of an Entrepreneur; Types of Entrepreneurs; Entrepreneurial Characteristics & Skills. Disadvantages of Being an Entrepreneur.

(Credits :2)

UNIT II

Promotion of a Venture: Opportunity Analysis; External Environmental Analysis Economic, Social and Technological; Competitive factors; Legal requirements of establishment of a new unit and Raising of Funds; Venture Capital Sources and Documentation Required.

Entrepreneurial Behaviour: Innovation and Entrepreneur; Entrepreneurial Behaviour and Psychotheories, Social responsibility. Entrepreneurial Development Programmes (EDP): EDP, Their Role, Relevance and Achievements; Role of Government in Organizing EDP's Critical Evaluation.

(Credits: 2)

UNIT III

Role of Entrepreneur: Role of an Entrepreneur in Economic Growth as an Innovator, Generation of Employment Opportunities, Complimenting and Supplementing Economic Growth,

Bringing about Social Stability and Balanced Regional Development of Industries: Role in Export Promotion and Import Substitution, Forex Earnings.

(Credits: 2)

Recommended Practice Sessions: 10 Practice sessions of case study and GD.

(Credit 1)

Recommended Text Book:

Hisrich, Robert and Peters, Michael, (2002), Entrepreneurship, 5th Edition, McGraw Hill Education.

Charantimani, (2006), Entrepreneurship Development and Small Business Enterprise, 1st edition, Pearson Education.

Suggested Readings:
Chandra, Ravi, (2003), Entrepreneurial Success: A Psychological Study, Sterling Publication Pvt. Ltd., New Delhi.
Balaraju, Theduri, (2004), Entrepreneurship Development: An Analytical Study, Akansha Publishing House, New Delhi.
David, Otes, (2004), A Guide to Entrepreneurship, Jaico Books Publishing House, Delhi.
Kaulgud, Aruna, (2003), Entrepreneurship Management, Vikas Publishing House, Delhi.

Goods and service tax

(Credit 8)

Unit I

CGST/SGST- important terms and definitions under central goods and service tax act 2017 and state goods and service tax act 2017, basic of GST, meaning and scope of supply, levy and collection of tax

(Credit 3)

Unit II

CGST/SGST- time and value of supply of goods and service, input tax credit, registration under CGST/SGST, payment of tax and include reverse charge basis, filling of return and assessment, Refund under the act.

(Credit 2)

Unit III

IGST- scope of IGST, important terms and definitions of IGST act 2017, levy and collection of IGST, composition scheme, place of supply, various exemptions , zero rated supply.

(Credit 3)

Recommended Text Books:

Goods and service tax act - PC publication NL choudhary

Principles of Insurance

(Credits 8)

Objective: The course has been designed to develop understanding of basic concepts of insurance and career opportunities available after this course.

UNIT I

Concept of Risk, Types of Risk, Risk Appraisal, Transfer and Pooling of Risks, Concept of Insurable Risk, Concept of Insurance, Purpose and need of Insurance, Relevance of Insurance to the emerging socio-economic needs of all the sections of society including Industrial sector   **(Credits   3)**

UNIT II

Types of Insurance Organizations, Insurance Business, Intermediaries in Insurance Business, Agents and Procedure for Becoming an Agent.

Principles of Insurance: Utmost Good Faith, Indemnity, Insurable Interest, Principle of Subrogation

(Credits 2)

UNIT III

Classification of Insurance: Life, Non-Life (general), Health, Pension, Social Security and Retirement Benefits,

Life Insurance- Introduction and Policies.Fire Insurance- Basic Principles, Fire Policy, Conditions.Marine

Insurance- General Principles and Policy.Insurance Product

(Credits 2)

Recommended Practice Sessions: 10 practice sessions of GD and case studies.

(Credit :1)

Recommended Text Books:

Gupta P.K, " *Insurance and Risk Management*", Himalya Publishing House; 2004
Mishra M.N., " *Principles and Practices of Insurance*",S. Chand and Co; 2004
Panda G.S., "*Principles and Practices of Insurance*" Kalyani Publications, 2004
Suggested Readings:
1.Jeevanandam C., "*Risk Management,"* Sultan Chand and Sons; 2005
2.Arthur C. and C. William Jr*., "Risk Management and Insurance,"* Tata Mcgraw Hill; 2001

Functional Accounting

(Credit 8)

Unit-1

Company Final Accounts: Preparation of Final Accounts- Forms and contents, as per provisions of Companies Act,

Accounts from incomplete records- Ascertainment of profit and loss from incomplete records, preparation of final accounts from incomplete records.

Cash flow accounting- Introduction of cash flow statement, objectives of cash flow statement, kinds of cash flow (cash inflow and cash outflow), cash flow from operating activities, cash flow from investing activities, cash flow from financing activities and methods for preparing cash flow statement.

(Credit 3)

Unit-2

Valuation of goodwill- meaning of goodwill, factors affecting goodwill, need for valuation of goodwill, methods for valuation of goodwill, average profit method, super profit method.

Valuation of shares- need of valuation of shares, factors affecting the value of shares, methods of valuation of shares, net assets valuation method, yield valuation method, valuation of shares in case of issue of bonus shares and valuation of right shares.

Departmental accounts- objectives of departmental accounts and departmental final accounts.

(Credit 2)

Unit-3

Financial statements of companies.

Branch Accounts- Objects of branch accounts, accounting system of branches.

Hire purchase Accounts- meaning of hire purchase system, features of hire purchase system, hire purchase accounting.

Profit Prior to Incorporation: Accounting treatment- cut off date- Basis of Apportionment.

(Credit 3)

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

Faculty of Law and Governance

Department of Management and Commerce

BACHELOR OF BUSINESS (BBA RETAIL)

SESSION – 2022-23

DURATION – 3 YEARS/6 SEMESTERS

SYLLABUS FOR: 1-3 YEARS

PROGRAM DETAIL

Name of Program	-	Bachelor of Business Administration in Retail (BBA Retail)
Program Code	-	BBA Retail
Mode of Program	-	Yearly /Semester
Duration of Program	-	3 yrs/ 6 Semester
Total Credits of Program	-	183
Curriculum Type and Medium Choice	-	English

SYLLABUS DETAIL
FIRST SEMESTER

S. No.	Credit	Course Name
1	2	Sales and Marketing
2	2	Business Communication
3	4	Introduction to Retail Operations
4	4	In-store Cashiering and Merchandising Operations- 1
5	4	In-store Cashiering and Merchandising Operations- 2
6	2	Fundamentals in Accounting
7	2	Fundamentals in Technology
	1	Extra-Curricular Activities
6	1	Curriculum Training & Exposure
	1	English Communication(Level-A)
7	-	Professional Activities
Total	23	

THIRD SEMESTER

S. No.	Credit	Course Name
1	3	Sales and Customers Relationship Management- 1
2	5	Sales and Customers Relationship Management- 2
3	4	Customer Redressal System
4	3	FMCG/FMCD Distribution
5	5	FMCG/FMCD Sales Management
	4	Non-store Retailng
6	1	Extra-Curricular Activities
7	1	Community Development Activities
8	-	Professional Activities
Total	26	

FIFTH SEMESTER

S. No.	Credit	Course Name
1	4	Team Management- 1
2	4	Team Management- 2
3	4	Operations of a Team Leader at the Store
	1	Extra-Curricular Activities
	1	Community Development Activities
7	-	Professional Activities
Total	14	

First Year
FIRST SEMESTER

Sales and Marketing

(**Crédits: 2)**

Objective:
The course aims at providing fundamental knowledge and exposure to the concepts, theories and practices in the field of sales and marketing.

Unit I
- Introduction: Concept of business organization, Features, Trade, industry and commerce, functions of business;
- Forms of business organization, Classification, Factors affecting the business;
- Types of business – Sole Proprietorship, Partnership;

(Credits: 0.5)

UNIT II
- Marketing- Concept, Nature, Scope, Significance and Importance, Marketing environment;
- Marketing Segmentation, Targeting and Positioning, Marketing Mix;
- Marketing Channel, types of Channel, Channel Strategies;

(Credits: 0.5)

UNIT III
- Sales Management – Scope, Features and Importance;
- Sales Organization Structure, Sales Strategies, Sales Forecasting;
- Sales Force Management, IT in Sales Management;

(Credits: 0.5)

Recommended practice session: Practice session of 5 Group discussions and 2 Cases in the GD room

(Credit:0.5)

Business Communication

(Credit:2)

Objective: The objective of this paper is to identify the foundation terms and concepts that are commonly used in business organization. It also identifies the essential elements for effective communication skills.

UNIT I
- Introduction to Business Communication – Concept, Nature, Scope and Importance;
- Features of Effective Communication, Communication Barriers and its Solutions;
- Effective Listening Skills;

(Credit :0.5)

UNIT II
- Verbal Communication, Concept, Elements of Effective Verbal Communication;
- Non-verbal Communication, Concept, Elements of Effective Non-verbal Communication;
- Writing Skills- Resume Writing, E-mail writing

(Credit :0.5)

UNIT III
- Reading Skills- Concept, Importance, Elements of Reading Skills;
- Report writing, Report Reading, Importance, Elements of Report Reading;

(Credit :0.5)

Recommended practice session : Practice session of 5 Group discussions and 2 Role play

(Credit:0.5)

Introduction to Retail Operations

(Credits: 4)

Unit I

- ➢ Introduction to Retail – Concept, Scope, Importance, Retail Formats;
- ➢ Career opportunities in Retail, Accounting Practices followed in Retail stores;
- ➢ Trainee Associates, Cashier Roles and Responsibilities;

(Credits:1.5)

Unit II

- ➢ Product, Product Categories, Distribution of Products and its Process;
- ➢ Stages of Store Operation, Equipment and Machineries used in Retail Stores;
- ➢ Health Hygiene and Safety Practices In Retail Store;

(Credits:1.5)

Unit III
- ➢ Importance of Customer Relationship in Business;
- ➢ Supply Chain Management- Concept, Scope and Importance;

(Credit:1)

In-store Cashiering and Merchandising Operations - 1

(Credits: 4)

Objective: The course aims to provide an understanding of basic concepts, theories and techniques in the field of Merchandising management and operations and in-store cashiering.

UNIT I

- ➢ Introduction: Concept and nature of Sales and Marketing;
- ➢ Store Layouts and Merchandising Practices;
- ➢ Visual Merchandising- Elements and Principles, Types of Visual Merchandising Displays;

(Credit :1)

UNIT II

- ➢ Goods and Inventory, Goods Receiving Process;
- ➢ Perpetual Inventory, Annual Inventory and their Process;
- ➢ Customer Buying Habits and Lifecycle;

(Credit :1)

UNIT III
- ➢ Point of Sales (POS) – Concept, Machine and its Operations;
- ➢ Process of Handling Tenders through POS Machine;
- ➢ Information and Advisory System for Customers;

(Credit:1)

Recommended practice session: Practice session of 5 Group discussions and 2 Role plays

(Credit:1)

Fundamental in Accounting

(Credit: 2)

Objective: To impart basic knowledge about accounting concepts in retail organisation.

Unit – I

- ➢ Introduction to Accounting, Need for Accounting, Scope of Accounting;
- ➢ Features and Functions of Accounting, Objectives, advantages and limitation of Accounting;
- ➢ Accounting Process, Concept and Dimensions;

(Credit: 0.5)

Unit – II:

- ➢ Classification of Accounts, Generalizing and Posting to Ledgers;
- ➢ Preparation of Subsidiary book, Cash Book;
- ➢ Trial Balance, Manufacturing and Trading Account;

(Credit: 0.5)

Unit – III:
- ➢ Profit and Loss Account and Balance Sheet in Retail Organisation;
- ➢ Adjusting and Closing Entries using Computers;
- ➢ Profit Margin and Markups

(Credit: 1)

Fundamentals in Technology

(Credit: 2)

Unit I:
MS Office I
MS Word & Word Processing : Meaning and features of word processing – Advantages and applications of word processing - Parts of MS Word application window – Toolbars – Creating, Saving and closing a document – Opening and editing a document - Moving and copying text – Text and paragraph formatting, applying Bullets and Numbering – Find and Replace – Insertion of Objects, Date and Time, Headers, Footers and Page Breaks – Auto Correct – Spelling and Grammar checking – Graphics, Templates and wizards - Mail Merge :
Meaning, purpose and advantages – creating merged letters, mailing labels, envelops and catalogs- Working with Tables – Format Painter.

MS EXCEL
Features of MS Excel – Spread sheet / worksheet, workbook, cell, cell pointer, cell address etc., - Parts of MS Excel window – Saving, Opening and Closing workbook – Insertion and deletion of worksheet – Entering and Editing data in worksheet – cell range – Formatting – Auto Fill –Formulas and its advantages – References : Relative, absolute and mixed – Functions: Meaning and Advantages of functions, different types of functions available in Excel – Templates –Charts – Graphs – Macros : Meaning and Advantages of macros, creation, editing and deletion of macros – Data Sorting, Filtering, validation, Consolidation, Grouping, Pivot Table and Pivot Chart Reports.

(Credit: 0.5)

Unit II:
MS Office II:
MS Access - Data, Information, Database, File, Record, Fields - Features, advantages and limitations of MS Access – Application of MS Access – 10 parts of MS Access window – Tables, Forms, Queries and Reports – Data validity checks – (Theory with simple problems)

MS PowerPoint:
Features, advantages and application of Ms Power point – Parts of MS Power point window – Menus and Tool bars – Creating presentations through Auto content wizard, Templates and manually – slide show – saving, opening and closing a Presentation – Inserting, editing and deleting slides –Types of slides - Slide Views- Formatting –Insertion of Objects and Charts in slides- Custom Animation and Transition.

Multimedia:
Meaning, Purpose, Usage and application – Images, Graphics, sounds and music – Video presentation devices – Multimedia on web.

(Credit: 0.5)

Unit- III:
Internet & E commerce:
Services available on internet - WWW - ISP.

E commerce:
Meaning, advantages and limitations, applications of E commerce - trading stocks online, ordering products / journals / books etc., online, travel and tourism services, employment placement and job market, internet banking, auctions, online publishing, advertising-Online payment system (including practicals).Ms Dos Ms Windows Ms Word Ms Excel**,** Ms Access MsPowerpoint Internet & E Commerce POS Software in Retail;

(Credit: 0.5)

Recommended practice session:*10 Practice Sessions of* Ms Dos Ms Windows Ms Word Ms Excel, Ms Access Ms PowerPoint Internet & E Commerce

(Credit: 0.5)

In-store Cashiering and Merchandising Operations – 2

(Credit: 4)

Objective: To enable students to develop Four major skills Reading, Writing, Speaking and Listening in relevance to English culture according to time and venue.

Unit I:
- ➢ Introduction to Merchandising Operations in Retail Stores;
- ➢ POS, Statutory requirements at POS, Customer Service requirements at POS;
- ➢ Sales Promotions – Concept and Types;

(Credit: 1)

Unit II:
- ➢ Customer Transaction Process at POS, Delivery Orders, Exchanges Returns, Markups and Markdowns;
- ➢ Plano grams – Concepts, Importance and Significance;
- ➢ Waste Management – Concept, Process, Importance and Significance;

(Credit: 1.5)

Unit III:
- ➢ Product, Product for Sales, Product Display Process, Product Quality Conformance;
- ➢ Customer Loyalty Schemes – Types, Significance, Features and Benefits;
- ➢ Team Management – Concept, Importance and Features of Effective Team Management;

(Credit: 1.5)

First Year
II Semester

NOTE:

1. Theoretical Offline Revisionary Classes as per previous (First year/ First Semester) Syllabus on Monday.
2. On-job training on rest of the days.
3. Total Theory and Practical Hours – 1080.
4. Total no. of Credits - 36

Second Year
Semester III

Sales and Customers Relationship Management - 1

(Crédits: 3)

Objective: To equip the students with the basic understanding of the sales and customer relationship in retail organisations.

UNIT I

➤ Customer Relationship – Concept, Significance, Importance;
➤ Importance of Planning and Organizing Schedules;
➤ Targets and goal its significance and Importance for Retail Stores;

(Credit: 1)

UNIT II

➤ Retail Mathematics, its impact on Profit and Loss of Retail Organisation;
➤ Category Management, Retail Department Management;

(Credit: 1)

UNIT III

➤ Customer Need and Buying Behaviour,Roles and Significance;
➤ Customer Touch Point in Retail Store;

(Credit: 1)

Sales and Customers Relationship Management - 2

(Credits: 5)

Objective: The primary objective of the course is to familiarize the students with the sales and customer relationship management.

UNIT I
➤ Retail sales process;
➤ Product- Concept, Product Demonstration, Specialist Products;

(Credits 1.5)

UNIT II
➤ Product and Product Handling Objections, Solutions and alternatives;
➤ Personalized Sales Service, Post Sales Service;
➤ Upselling and Cross Selling;

(Credits 1.5)

UNIT III
➤ Sales on Credit and its Management;
➤ Sales Promotion and Management;

(Credits 2)

Customer Redressal System

(Crédits :4)

Objective: The objective of the paper is to make student aware of the various functions and importance of the customer redressal system in retail organization.

UNIT I:

- Introduction: Meaning, scope, objectives and functions of customer redressal system and its Importance
- Customer service concerns and problems, solution and techniques.

(Credit 1)

UNIT II:
- Customer service management and importance
- Types of customers, complaint handling and resolution
- Team work and its significance
- CRM system and their uses

(Credit 1)

UNIT III:
- Retailing and its types,B2B Retailing
- B2B retail environment and its importance.
- Customer engagement and service in B2B environment

(Credit 1)

Recommended practice session:Practice session of 5 Group discussion and 2 Case Analysis in GD room

(credit:1)

FMCG/FMCD Distribution

(Credits: 3)

Objective: The objective of the paper is to make student aware of the various functions and importance of the FMCG/FMCD Distribution system in retail organization.

UNIT I
- FMCG Distribution, FMCD Distribution – Concept and Significance;
- Supply Chain System – Concept and Importance;
- Supply chain system in FMCG/ FMCD

(Credit :1)

UNIT II
- Transportation System in Retailing;
- Storage and Distribution in Retailing;
- Post Sales Services

(Credit :1)

UNIT III
- Roles and Responsibilities in FMCG Distribution System;
- Importance of Personal Effectiveness;
- Distributor and Retailer Relationship Management;

(Credit: 1)

FMCG/FMCD Sales Management

(Crédits : 5)

OBJECTIVES : The objective of the paper is to make student aware of the various functions and importance of the FMCG/FMCD sales management in retail organization.

UNIT -I
- ➢ FMCG/FMCD Sales Management – Concept and importance;
- ➢ Data analysis and its Importance;
- ➢ Planning Process in Sales;

(Crédit : 1)

UNIT –II
- ➢ Distributor sales Person – Roles and Responsibilities;
- ➢ Merchandising and Branding, Productivity Matrix, Outlet categories;
- ➢ Stock Management, Order Booking;

(Crédits : 1.5)

UNIT –III
- ➢ Objection Handling and Negotiation with Retailers;
- ➢ Process for Effective sales Calls;
- ➢ Distribution Team Management;

(Crédits :1.5)

Recommended practice session : 10 Practice session of 5 Role Play& 2 Cases in GD room

(Credit:1)

Non- Store Retailing

(Credits: 4)

Objective: To enable students to aware about the concepts of non-store retailing, e-commerce and e-retailing.

UNIT I :
- ➢ Non-store Retailing – Concept, Nature, Significance and Importance, Non-store Retailing Formats;
- ➢ E-commerce- Concept, Importance, Significance;
- ➢ E-commerce Environment and its importance;

(Credit: 1)

UNIT II :
- ➢ Stakeholder Management, Importance of Stakeholder Management in E-commerce Environment;
- ➢ Sales and marketing Practices in E-retailing, Technology Platforms in E-retailing, Importance of technology Platform in E-retailing;
- ➢ Customer Service Process, Market Information System;

(Credit: 1)

UNIT III:
- ➢ Product Catalogue – Concept, Significance on E-commerce Website;
- ➢ Basics of Category Management on E-retailing Management Platforms, Legal Requirements for Sales on E-commerce Website;
- ➢ Seller Acquisition – Concept,Process for E-commerce Platforms;

(**Credit: 1)**

Recommended practice session : Practice session of 2 Cases in GD room

(**Credit: 1)**

Second Year
Semester IV

NOTE:

1. Theoretical Offline Revisionary Classes as per previous (Second year/ Third Semester) Syllabus on Monday.
2. On-job training on rest of the days.
3. Total Theory and Practical Hours – 1080.
4. Total no. of Credits - 36

Third Year
V Semester

Team management -1

(Credits: 4)

Objective: The objective of this paper is to develop student's familiarity with the basic concept of team management.

UNIT I
- ➤ Team management: Concept, Importance and Significance.
- ➤ Team Leader, Roles and Responsibilities. **(Credit : 1)**

UNIT II
- ➤ High performance team and its elements.
- ➤ Planning and Selection of a team. **(Credits : 1.5)**

UNIT III
- ➤ Interviewing skills for the team.
- ➤ Goal and objective setting for the organization and team members.
- ➤ Business ethics and values. **(Credits : 1.5)**

Team Management -2

(Credits :4)

Objective: To give a detailed idea about the team management and its role in the organizations.

UNIT I
- ➤ Team work: concept and importance.
- ➤ Team work planning, prioritizing and scheduling.
- ➤ Conflict Management in retail organizations. **(Credit 1)**

UNIT II
- ➤ Performance, Performance review and Performance appraisal.
- ➤ Training and Platform skills and their importance.. **(Credit 1)**

UNIT III
- ➤ **Feedback and its importance.**
- ➤ **Coaching and training for the members.**
- ➤ **Negotiation and objection skills.**.

(Credit 1)

Recommended Practice Sessions: 5practice sessions of GD and case studies.

(Credit 1)

Operations of a Team leader at the store

(Credits 4)

Objective: To gain an in-depth understanding of the operations to be followed by the team leader at the retail stores.

UNIT I
- Team leader: Roles and Responsibilities.
- Inventory, Inventory Management.
- Impact of Inventory on Profit Margins.
- Product and VM displays and its Management. **(Credit: 1)**

UNIT II

- Sales and Customer Service Process Management.
- Exceptions in sales and service processes.
- Vendor and Supplier Relationship Management.
- Stock Management in retail stores. **(Credit: 1)**

UNIT III
- Allocation of work among members. Team roles and work distribution.
- Team Performance and team monitoring.
- Escalation Management and its importance. **(Credit: 1)**

Recommended Practice Session: Practice Sessions of 10 G.D. & 2 Case study in G.D. Room

(Credit 1)

Third Year
VI Semester

<u>NOTE:</u>

1. Theoretical Offline Revisionary Classes as per previous (Third year/ Fifth Semester) Syllabus on Monday.
2. On-job training on rest of the days.
3. Total Theory and Practical Hours – 1440.
4. Total no. of Credits - 48

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

Faculty of Law and Governance

Department of Management and Commerce

BACHELOR OF BUSINESS ADMINISTRATION

BBA

SESSION – 2022-23

DURATION –3 YEARS/ 6 SEMESTERS

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

PROGRAM DETAIL

Name of Program	-	Bachelor of Business Administration (BBA)
Program Code	-	BBA
Mode of Program	-	Yearly /Semester
Duration of Program	-	3 yrs/ 6 Semesters
Total Credits of Program	-	274
Curriculum Type and Medium Choice	-	English

SYLLABUS DETAIL
FIRST SEMESTER

S. No.	Credit	Course Name
1	8	Principles of Management
2	8	Marketing Management
3	8	Fundamentals of Accounting
4	8	Organization Behavior
5	8	FUNDAMENTAL OF INFORMATION-TECHNOLOGY
6	1	Extra-Curricular Activities
	1	Curriculum Training & Exposure
	1	English Communication(Level-A)
7	-	Professional Activities
Total	43	

SECOND SEMESTER

S. No.	Credit	Course Name
1	8	Business Mathematics
2	8	Financial Management
3	8	Business Organization
4	8	Managerial Economics
5	8	Database Management System
6	1	Extra-Curricular Activities
	1	Curriculum Training & Exposure
	1	Women Rights and Law
7	-	Professional Activities
Total	43	

THIRD SEMESTER

S. No.	Credit	Course Name
1	8	Research Methods in Business
2	8	Cost Accounting
3	8	Human Resource Management
4	8	Advance Financial Management
5	8	Brand Management
6	1	Environmental Science & Disaster management : Ecosystem and pollution
	1	Industrial Visit
	1	Extra-Curricular Activities
7	1	Community Development Activities
8	-	Professional Activities
Total	**44**	

FORTH SEMESTER

S. No.	Credit	Course Name
1	7	Business Environment
2	7	Business Ethics and Corporate Governance
3	7	Management Accounting
4	7	Principles of Banking
5	7	Legal Aspects of Indian Business
6	18	45 Days Training
	1	Extra-Curricular Activities
	1	Community Development Activities
7	-	Professional Activities
Total	**37+18**	

FIFTH SEMESTER

S. No.	Credit	Course Name
1	7	Quantitative Techniques
2	7	Indian Financial System
3	7	Training And Development
4	7	Industrial Relations
5	7	International Marketing
6	10	Certified Project
	1	Extra-Curricular Activities
	1	Community Development Activities
7	-	Professional Activities
Total	37+10	

SIXTH SEMESTER

S. No.	Credit	Course Name
1	8	Operation Research
2	8	Entrepreneurship Development
3	8	Strategic Management
4	8	Capital Market & Security Analysis
5	8	Advertising & Sales Promotion Management
6	1	Extra-Curricular Activities
	1	Community Development Activities
	-	Professional Activities
Total	**42**	

Program Outline
FIRST SEMESTER

Nature of Course	Course Name	Credit
Core Management	Principles of Management: Functions of Management , Development of Management Thought	2
	Principles of Management: MBO,Departmentation & Staffing	2.5
	Principles of Management: Motivation, Leadership Controlling	2.5
	Practice session of 5 Group discussions and 2 Cases in the GD room	1
Core Marketing	Marketing Management: Segmentation, Targeting and Positioning, Product Life Cycle	2
	Marketing Management: Price, Place, Product	2.5
	Marketing Management: Promotion& Personal Selling	2.5
	Practice session of 5 Group discussions and 2 Role play	1
Core Accounting	Fundamentals of Accounting: Theoretical Framework,	**2**
	Fundamentals of Accounting: Bank Reconciliation, Final Accounts for Sole Proprietors	**3**
	Fundamentals of Accounting: Special Transactions, Partnership	**3**
Core Management	Organization Behavior : Basics of Behavior ,Personality Various Models	2
	Organization Behavior: Learning & Groups behavior	3
	Organization Behavior: Culture and Conflict, Change	2
	Practice session of 5 Group discussions and 2 Role plays	1
Core Information Technology	Fundamental of Information Technology: Introduction to Computers, Operating System & Windows	2
	Fundamental of Information Technology: MS Office I & II	2
	Fundamental of Information Technology: Internet & E-Commerce	2
	20 Practice Sessions of Ms Dos Ms Windows Ms Word Ms Excel, Ms Access Ms PowerPoint Internet & E Commerce	*2*
University Compulsory Course	Extra-Curricular Activities	1
	Curriculum Training & Exposure	1
	English Communication : Reading and Listening: Vocabulary Building, Passages, Audio and Videos	0.5
	English Communication : Writing and Speaking: Grammar, Phonology, Writing Formats	0.5
University Optional course	Professional Activities	-
Total Credits:		**43**

SECOND SEMESTER

Nature of Course	Course Name	Credit
CoreApplied Mathematics	Business Mathematics: Permutation & Combination	2.5
	Business Mathematics: Vectors	3
	Business Mathematics: Differential Calculus	2.5
Core Finance	Financial Management : Overview of Financial Management	2.5
	Financial Management : Capital Structure & Cost of Capital	3
	Financial Management : Capital Budgeting & Leverages	2.5
Core Management	Business Organization: Business and Environment Interface	2
	Business Organization: Kinds of Business	3
	Business Organization: Government Policies. Government & Business Interface	2
	10 Practice session of 5 Group discussions and 5 Case Studies	1
Core Economics	Managerial Economics: Micro Economics	3
	Managerial Economics: Macro Economics	4
	10 Practice session of 5 Group discussions and 5 Case Studies	1
Core Information Technology	Data Base Management System: Structure of a DBMS	2
	Data Base Management System: Relational Model	2
	Data Base Management System: Database Creation and Manipulation	3
	10 Practice Sessions of SQL Queries, ER- Model	*1*
University Compulsory Course	Extra-Curricular Activities	1
	Curriculum Training & Exposure	1
	Women Rights and Law: Constitutional Safeguards for Women, Right to Equality	0.5
	Women Rights and Law: Right of Private Defence	0.5
University Optional course	Professional Activities	-
Total Credits:		**43**

THIRD SEMESTER

Nature of Course	Course Name	Credit
Core Research	Research Methods in Business: Research Design	2
	Research Methods in Business: Sampling Design	2.5
	Research Methods in Business: Parametric & Report Writing	2.5
	5 Practice Sessions of Development of Questionnaires and 5 for SPSS in Computer Lab	1
Core Accounting	Cost Accounting: Basic Cost Concepts	3
	Cost Accounting: Labour Cost Control, Overheads	3
	Cost Accounting: Methods of Costing	2
Core Human Resource Management	Human Resource Management : Evolution of HRM, Acquisition of Human Resources	2
	Human Resource Management : Selection Process	2
	Human Resource Management : Compensation & Maintenance	3
	Practice session of 5 Group discussion and 5 Case Analysis in GD room	1
Core Accounting	Advance Financial Management : Sources of Financing, Depositories	2
	Advance Financial Management: Working Capital Management, Inventory & Dividend Policy	2.5
	Advance Financial Management: Leasing, Corporate Restructuring	2.5
	10 Practice session of 5 Group discussion and 5 Cases in GD room	1
Core Marketing	Brand Management : Branding context	2
	Brand Management : Brand audit	2
	Brand Management : Branding strategies	3
	10 Practice session of 5 Role Play&5 Cases in GD room	1
University Compulsory course	Environmental Science & Disaster management :Ecosystem and pollution	0.25
	Environmental Science & Disaster management : Biodiversity and Conservation	0.25
	Environmental Science & Disaster management : Concept and Types of Disaster	0.25
	Environmental Science & Disaster management : Components and Management of Disaster	0.25
Professional Development Activities	Industrial Visit	1
University Compulsory Course	Extra-Curricular Activities	1
	Community Development Activities	1
University Optional Course	Professional Activities	-
Total Credits:		44

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

Program Outline
FORTH SEMESTER

Nature of Course	Course Name	Credit
Core Management	Business Environment: Overview of Business Environment	1.5
	Business Environment: Economic & Social Environment	2.5
	Business Environment: Political, Natural , Technology Environment	2
	10 Practice Sessions of GD's and Case Studies	1
Core Management	Business Ethic Corporate Governance: Values & Ethical Decision Making	1.5
	Business Ethic Corporate Governance: Knowledge and Wisdom, Stress & Dharma & Karma Yoga	2.5
	Business Ethic Corporate Governance: Success, Corporate Social Responsibility& Corporate Governance	2
	10 Practice Sessions of GD's and Case Studies	1
Core Accounting	Management Accounting: Financial Analysis	2
	Management Accounting: Ratio Analysis, Funds & Cash Flow Analysis	3
	Management Accounting: Budgets	2
Core Banking	Principles of Banking: Indian Banking System, Commercial Banking	1.5
	Principles of Banking: Bank Balance-Sheet, Loans and Advances	2.5
	Principles of Banking: Emerging trends in Banking:	2.5
	5 Practice session of Group discussion and 2 Cases in GD room	0.5
Core Law	Legal Aspects of Indian Business:Contract Act 1872	1.5
	Legal Aspects of Indian Business: Sale of Goods Act 1930	2.5
	Legal Aspects of Indian Business: Companies Act 1956	2.5
	Practice session of 5 Group discussion and 2 Role Plays	0.5
Professional Development Activities	45 Days Training	**18**
University Compulsory Course	Extra-Curricular Activities	1
	Community Development Activities	1
University Optional Course	Professional Activities	-
Total Credits:		**37+18**

Program Outline
FIFTH SEMESTER

Nature of Course	Course Name	Credit
Core Management	Quantitative Techniques: Matrices & Inverse of matrix	2.5
	Quantitative Techniques: Probability & Assignment Problems	2.5
	Quantitative Techniques: Transportation problems & Queuing Theory	2
Core Finance	Indian Financial System: Overview Indian financial system, Capital market	2
	Indian Financial System:Financial services, Merchant banking	2.5
	Indian Financial System: Credit rating, Leasing, Stock exchange business and practices	2
	Practice Sessions of 5 G.D. & 2 Case study in G.D. Room	**0.5**
Core Human Resource Management	Training & Development: Training Process, Learning and Skill, Relationship between HRD & Business Strategies	2
	Training & Development: Training Climate, Training Techniques, Training Function	2
	Training & Development: Technical Training, Training Communication, Training Evaluation	2
	Practice Sessions of 5 G.D. & 5 Case study in G.D. Room	**1**
Core Human Resource Management	Industrial Relations : Industrial relations perspectives	2.5
	Industrial Relations: Trade Unions	2
	Industrial Relations: Employee empowerment	2
	Practice Sessions of 5 G.D. & 2 Case study in G.D. Room	**0.5**
Core Marketing	International Marketing: International market environment	2
	International Marketing: International marketing research & Product Management	2
	International Marketing: Marketing communication	2
	10 Practice session of 5 Group discussion and 2 Cases in GD room	1
Professional development Activities	Certified Project	**10**
University Compulsory Course	Extra-Curricular Activities	1
	Community Development Activities	1
University Optional Course	Professional Activities	-
Total Credits:		**37+10**

Program Outline
SIXTH SEMESTER

Nature of Course	Course Name	Credit
Core Management	Operations Research: Theory of Games, Methodology and Limitations	2
	Operations Research: Decision Theory & Simulation Technique	3
	Operations Research: Linear Programming &Replacement Problem	2
	10 Practice Sessions of GD's and Case Studies	1
Core Management	Entrepreneurship Development: Theories & Characteristics of Entrepreneurship	2
	Entrepreneurship Development: Promotion of a Venture	3
	Entrepreneurship Development: Role of Entrepreneur	2
	Practice Sessions of 5 G.D. & 2 Case study in G.D. Room	1
Core Management	Strategic Management: Fundamentals of Strategy	2
	Strategic Management: Environmental Analysis	3
	Strategic Management: Formulation of Strategy	2.5
	Practice Sessions of 5 G.D. & 2 Case study in G.D. Room	0.5
Core Finance	Capital Markets & Security Analysis : Concept of Security	2
	Capital Markets & Security Analysis : Securities markets	2
	Capital Markets & Security Analysis : SEBI and its Regulation	3
	Practice Sessions of 5 G.D. & 5 Case study in G.D. Room	1
Core Marketing	Advertising & Sales Promotion Management: Process & structure ofadvertising industry	2
	Advertising & Sales Promotion Management: Planning & Target	3
	Advertising & Sales Promotion Management: Preparing The Message	2.5
	Practice Sessions of 5 G.D. & 2 Case study in G.D. Room	0.5
University Compulsory Course	Extra-Curricular Activities	1
	Community Development Activities	1
University Optional Course	Professional Activities	-
Total Credits:		42

FIRST YEAR
FIRST SEMESTER

Principles of Management

(Crédits: 8)

Objective:
The course aims at providing fundamental knowledge and exposure to the concepts, theories and practices in the field of management.

Unit I
- Introduction: Concept, Nature, Process and Significance of Management; Managerial levels, Skills, Functions and Roles; Management vs. Administration; Coordination as Essence of Management;
- Development of Management Thought: Classical, Neo-Classical, Behavioral, Systems and Contingency Approaches.
- Planning: Nature, Scope and Objectives of Planning; Types of plans; Planning Process; Business Forecasting;

(Credits: 2)

UNIT II

- MBO: Concept, Types, Process and Techniques of Decision-Making; Bounded Rationality.
- Organizing: Concept, Nature, Process and Significance; Principles of an Organization; Span of Control; Departmentation; Types of an Organization; Authority-Responsibility; Delegation and Decentralization; Formal and Informal Organization
- Staffing : Concept, Nature and Importance of Staffing;

(Credits: 2.5)

UNIT III

- Motivating and Leading: Nature and Importance of Motivation; Types of Motivation; Theories of Motivation: Maslow, Herzberg, X, Y and Z;
- Leadership: Meaning and Importance; Traits of a leader; Leadership Styles – Likert's Systems of Management, Tannenbaum& Schmidt Model and Managerial Grid.
- Controlling: Nature and Scope of Control; Types of Control; Control Process; Control Techniques – Traditional and Modern; Effective Control System.   **(Credits: 2.5)**

  Recommended practice session: Practice session of 5 Group discussions and 2 Cases in the GD room

(Credit:1)

Recommended Text Book:
- Principles of Management byDr. L. M. Prasad Anmol Publications Sultan Chand & Sons

Suggested Readings:
- Koontz, H. (2008), Essentials of Management, McGraw Hill Education.
- Gupta, C.B. (2008), Management Concepts and Practices, Sultan Chand and Sons, New Delhi.
- Robbins, (2009). Fundamentals of Management: Essentials Concepts and Applications, 6th edition, Pearson Education.
- Stoner, Freeman and Gilbert Jr. ((2010)) Management, 8th Edition, Pearson Education.
- Ghillyer, A, W., (2008) Management- A Real World Approach, McGraw Hill Education.
- Mukherjee, K, (2009), Principles of Management, 2nd Edition, McGraw Hill Education.

Marketing Management

(Credit:8)

Objective: The objective of this paper is to identify the foundation terms and concepts that are commonly used in marketing. It also identifies the essential elements for effective marketing practice. This course will give complete relationship between marketing and other management functions.

UNIT I
- Introduction to Marketing: Nature, Scope and Importance of Marketing, Basic concepts
- , Marketing Environment,
- Market Segmentation, Targeting and Positioning.
- Product: Product Levels, Product Mix, Product Strategy, Product innovation and Diffusion, Product Development, Product Lifecycle and Product Mix.

(Credit :2)

UNIT II
- Pricing Decisions: Designing Pricing Strategies and Programmes, Pricing Techniques.
- Place: Meaning & importance, Types of Channels, Channels Strategies, Designing and Managing Marketing Channel,
- Managing Retailing, Physical Distribution,
- Marketing Logistics and Supply Chain Management.

(Credit :2.5)

UNIT III
- Promotion: Promotion Mix, Push vs. Pull Strategy; Promotional Objectives, Advertising- Meaning and Importance, Types, Media Decisions, Promotion Mix,
- Personal Selling- Nature, Importance and Process, Sales Promotion – Purpose and Types; Publicity and Public Relations- Definition, Importance and Methods.

(Credit :2.5)

Recommended practice session : Practice session of 5 Group discussions and 2 Role play

(Credit:1)

Recommended Text Book:
- Kotler, Armstrong, Agnihotri and Haque, (2010), Principles of Marketing- ASoutAsian Perspective, 13th edition, Pearson Education.

Suggested Readings:
- Saxena, Rajan, (2008), Marketing Management, 3rd edition, McGraw Hill Education.
- Kumar, Arun and Meenakshi, N., (2009), Marketing Management, Vikas Publishing House.
- Russel, Winer, (2007), Marketing Management, 3rd edition, Pearson Education.
- Kotler, KoshiJha, (2009), Marketing Management, 13 edition, Pearson Education.
- Ramaswamy and Namkumar, S., (2009), Marketing Management Global Perspective: Indian Context, McMillan, Delhi.

Fundamentals of Accounting

(Credits: 8)

Unit I
Theoretical Framework
(i) Meaning and Scope of accounting
(ii) Accounting Concepts, Principles and Conventions
(iii) Accounting Standards – concepts, objectives, benefits
(iv) Accounting Policies
(v) Accounting as a measurement discipline – valuation principles, accounting estimates

Accounting Process

Books of Accounts leading to the preparation of Trial Balance, Capital and revenue expenditures, Capital and revenue receipts, Contingent assets and contingent liabilities, Fundamental errors including rectifications thereof.

(Credits:2)

Unit II

➢ Bank Reconciliation Statement

➢ Inventories Basis of inventory valuation and record keeping.

➢ Depreciation accounting Methods, computation and accounting treatment of depreciation, Change in depreciation methods.

➢ Preparation of Final Accounts for Sole Proprietors

(Credits:3)

Unit III
Accounting for Special Transactions
(a) Consignments
(b) Joint Ventures
(c) Bills of exchange and promissory notes
(d) Sale of goods on approval or return basis
 Partnership Accounts
Final accounts of partnership firms – Basic concepts of admission, retirement and death of a partner including treatment of goodwill.
 Introduction to Company Accounts
Issue of shares and debentures, forfeiture of shares, re-issue of forfeited shares, redemption 9of preference shares

(Credits:3)

Recommended Text Book:
Fundamentals of Accounting;Maheshwari S N;vikas publication house
Suggested Readings:

Fundamental accounting; P. C. Tulsiyan; Tata McGraw-Hill Education

Organizational Behavior

(Credits: 8)

Objective: The course aims to provide an understanding of basic concepts, theories and techniques in the field of human behavior at the individual, group and organizational levels in the hanging global scenario. The course must be taught using case study method.

UNIT I
- Introduction: Concept and nature of Organizational behavior; Contributing disciplines to the field of O.B.;
- O.B. Models; Need to understand human behavior; Challenges and opportunities.
- Individual & Interpersonal Behavior: Biographical Characteristics; Ability; Values;
- Attitudes- Formation, Theories, Organization Related Attitude, Relationship between Attitude and Behavior;
- Personality – Determinants and Traits; Emotions;

(Credit :2)

UNIT II

- Learning-Theories and Reinforcement Schedules, Perception –Process and Errors.
- Interpersonal Behavior: Johari Window; Transactional Analysis – Ego States, Types of Transactions, Life Positions, Applications of T.A.
- Group Behavior & Team Development: Concept of Group and Group Dynamics; Types of Groups;
- Formal and Informal Groups; Stages of Group Development, Theories of Group Formation; Group Norms, Group Cohesiveness;

(Credit :3)

UNIT III
- Group Think and Group Shift. Group Decision Making; Inter Group Behaviour;
- Concept of Team Vs. Group; Types of Teams; Building and Managing Effective Teams.
- Organization Culture and Conflict Management: Organizational Culture- Concept, Functions,
- Socialization; Creating and sustaining culture; Managing Conflict – Sources, Types, Process and Resolution of Conflict;
- Managing Change; Resistance to Change, Planned Change. Managing Across Cultures; Empowerment and Participation.

(Credit:2)

Recommended practice session: Practice session of 5 Group discussions and 2 Role plays

(Credit:1)

Recommended Text Book
- Robbins, S.P. and Sanghi, S., (2009), Organizational Behaviour; 13th edition, Pearson Education.
- Singh, Kavita, (2010), Organizational Behaviour: Text and Cases, 1st edition, Pearson Education.

Suggested Readings:
- Luthans, Fred, (2008), Organizational Behavior, 11th Edition, McGraw Hill Education.
- Mcshane, Steven, Von, Glinow and Sharma, Radha, (2008), Organisational Behaviour, 4th Edition, McGraw Hill Education.
- Kinicki, Angelo and Kreitner, Robert, ((2005)), Organisational Behaviour, 2nd Edition, McGraw Hill Education.

Fundamental of Information Technology

(Credit: 8)

Objective: To impart basic knowledge about computer with application of various packages to Business and Commerce.

Unit – I
Introduction to computers:
Definition, Characteristics and limitations of computers - Elements of Computers - Hardware - CPU - Primary and Secondary memory - Input and Output devices. IT enabled services - BPO, KPO, Call centers.
Modern communications
(Concepts only)**:** Communications – FAX, Voice mail, and information services – E Mail – Creation of email id - group communication – Tele conferencing – Video conferencing – File exchange – Bandwidth – Modem – Network Topologies – Network types LAN, MAN, WAN and their architecture – Dial up access.
Operating System and Windows: Operating Systems: Meaning, Definition, Functions and Types of Operating Systems - Booting process – Disk Operating System: Internal and External Commands – Wild Card Characters – Computer Virus, Cryptology. Windows operating system - Desktop, Start menu, Control panel, Windows accessories.

(Credit: 2)

Unit – II:
MS Office I

MS Word & Word Processing : Meaning and features of word processing – Advantages and applications of word processing - Parts of MS Word application window – Toolbars – Creating, Saving and closing a document – Opening and editing a document - Moving and copying text – Text and paragraph formatting, applying Bullets and Numbering – Find and Replace – Insertion of Objects, Date and Time, Headers, Footers and Page Breaks – Auto Correct – Spelling and Grammar checking – Graphics, Templates and wizards - Mail Merge :
Meaning, purpose and advantages – creating merged letters, mailing labels, envelops and catalogs- Working with Tables – Format Painter.

MS EXCEL

Features of MS Excel – Spread sheet / worksheet, workbook, cell, cell pointer, cell address etc., - Parts of MS Excel window – Saving, Opening and Closing workbook – Insertion and deletion of worksheet – Entering and Editing data in worksheet – cell range – Formatting – Auto Fill –Formulas and its advantages – References : Relative, absolute and mixed – Functions: Meaning and Advantages of functions, different types of functions available in Excel – Templates –Charts – Graphs – Macros : Meaning and Advantages of macros, creation, editing and deletion of macros – Data Sorting, Filtering, validation, Consolidation, Grouping, Pivot Table and Pivot Chart Reports.

MS Office II:
MS Access - Data, Information, Database, File, Record, Fields - Features, advantages and limitations of MS Access – Application of MS Access – 10 parts of MS Access window – Tables, Forms, Queries and Reports – Data validity checks – (Theory with simple problems)

MS PowerPoint:
Features, advantages and application of Ms Power point – Parts of MS Power point window – Menus and Tool bars – Creating presentations through Auto content wizard, Templates and manually – slide show – saving, opening and closing a Presentation – Inserting, editing and deleting slides –Types of slides - Slide Views- Formatting –Insertion of Objects and Charts in slides- Custom Animation and Transition.

Multimedia:
Meaning, Purpose, Usage and application – Images, Graphics, sounds and music – Video presentation devices – Multimedia on web.

(Credit: 2)

Unit- III:
Internet & E commerce:
Services available on internet - WWW - ISP.

E commerce:
Meaning, advantages and limitations, applications of E commerce - trading stocks online, ordering products / journals / books etc., online, travel and tourism services, employment placement and job market, internet banking, auctions, online publishing, advertising-Online payment system (including practicals).

(Credit 2)

Lab Work:
PRACTICALS:
MS DOS MS WINDOWS MS WORD MS EXCEL
MS ACCESS MS POWERPOINT INTERNET & E COMMERCE.

Recommended practice session:*10 Practice Sessions of* Ms Dos Ms Windows Ms Word Ms Excel, Ms Access Ms PowerPoint Internet & E Commerce

(Credit 2)

Recommended Text Books:
Computer Fundamentals; Pradeep K. Sinha, PritiSinha; BPB Publications

Suggested Readings:

1. Introduction to Information Technology: Rajaraman, PHI
2. Fundamentals of Computers 4/E: Rajaraman, PHI
3. Fundamentals of Computers: P. Mohan, Himalaya
4. Information Technology: Dennis P. Curtin, McGraw Hill International
5. Fundamentals of Information Technology: Sahaetal, Himalaya
6. Microsoft Office Excel 2003 step by step: Frye, PHI
7. Fundamentals of Computers: AtulKahate, Tata McGraw Hill

English Communication

(Credit: 1)

Objective: To enable students to develop Four major skills Reading, Writing, Speaking and Listening in relevance to English culture according to time and venue.

Unit 1: Reading and Listening

1. Types of passages, purpose of reading, reading strategies, vocabulary building, antonyms and synonyms and one-word substitution etc.
2. Role of Listening, Barriers of Listening, Remedies to remove the barriers. Listening to Narratives, Listening to specific information or data, listening to Conversational contexts etc.

(Credit: 0.5)

Unit 2: Writing and Speaking

- Subject- Verb Concord, Sentence Pattern (SVOCA), Time and Tenses. Different Letter Writing Formats: Application, Cover Letter, Notice, Report etc. Resume Building.
- Introduction to the sounds of English-Vowels, Diphthongs and Consonants phonetic sounds, Introduction to Stress and Intonation, Situational Dialogues / Role Play 'Just a minute' Sessions (JAM), action verbs (play way method), Describing Objects/ Situations/ People (personality), Debates (current topics), Turn Coat, Telephonic Conversation.

(Credit: 0.5)

Recommended text Books:
- Phonetics by Peter Roach, Oxford University Press 2004.
- Better English Pronunciation by J.D.O'Connor, OUP 2010.

Suggested Readings:
- Accents of English by J.C.Wells, Cambridge University Press.
- English Grammar Today with CD: An A-Z of Spoken and Written
- Grammar by Ronald Carter, Michael Mac Carthy, Geraldine Mark
- Anne O'Keeffe, Cambridge University Press, 2009.
- Alred, Gerald J. . The Business Writers Handbook. 9th ed. Boston:
- Bedford/St. Martins, 2009.
- GeetaJajivan, Kiranmai: Course Listening and Speaking Skills part 1. Foundation Books Pvt Ltd.
- Lorven: Enrich Your Communication in English

FIRST YEAR
II Semester

Business Mathematics

(Credits 8)

Objective: This course aims at equipping student with a broad based knowledge of mathematics with emphasis on business applications.

UNIT I
- ➢ Principle of Counting: Permutations and Combination, Concept of Factorial, Principle of Counting,
- ➢ Permutation with Restriction, Circular Permutation and Combination with Restriction; Mathematics Induction: Principle, Sequences & Series -A.P. & G.P.
- ➢ Matrix Algebra: The Inverse of a Matrix. Properties of the Inverse Solution to a System of Equations by: (i) theAdjoint Matrix Methods. (ii) The Gaussian Elimination mentor, Rank of a Matrix, Rank of a System of Equations

(Credit 2.5)

UNIT II
- ➢ The Echelon Matrix; Vectors: Types Optimization Vector- Additions, Suggestions & Multiplication,
- ➢ Scaler Product, Vector Product; Linear Dependence of Vectors, Application of Matrices to Business Problems Input Output Analysis,
- ➢ Preparation of Depreciation Lapse Schedule, Variance Analysis, Inventory Flow Analysis.

(Credit 3)

UNIT III
- ➢ Differential Calculus: Optimization Using Calculus, Point of Inflexion Absolute and Local- Maxima and Minima, Optimization in case of Multi Variate Function. Lagrangian multipliers,
- ➢ Derivative as a Rate Measure, Applications in Business.
- ➢ Integral Calculus & Differential Equations: Business application,
- ➢ Consumer's or Producer's surplus,
- ➢ Learning Curve; Differential Equations – Variable, Separable and Homogeneous Type- Business applications.

(Credit 2.5)

Recommended Text Book:

- Trivedi, ((2010)), Business Mathematics, 1st edition, Pearson Education.

Suggested Reading:

- Raghavachari, M, ((2004)), Mathematics for Management, McGraw Hill Education.
- Bhardwaj, R.S. (2000). Mathematics for Economics and Business, Excel Books
- Cleaves, Cheryl, and Hobbs, Margie, (2008) Business Math, 7th Edition, Prentice Hall.
- Tuttle, Michael, D., (2008) Practical Business Math: An Applications Approach, 8th Edition, Prentice Hall.
- Khan, Shadab, (2008) A Text Book of Business Mathematics, Anmol Publications.

Financial Management   (Credits 8)

Objectives: (a) To develop ability to analyse and interpret various tools of financial analysis and planning; (b) To gain knowledge of management and financing of working capital; (c) To understand concepts relating to financing and investment decisions; and (d) To be able to solve simple cases.

Unit I

- ➢ **Scope and Objectives of Financial Management** (a) Meaning, importance and objectives (b) Conflicts in profit versus value maximization principle (c) Role of Chief Financial Officer.
- ➢ **Financial Planning** , Meaning , Definition, Objective of financial planning, Importance of financial planning ,
- ➢ **Time Value of Money** Compounding and discounting techniques – concepts of annuity and perpetuity.
- ➢ **Leverage Analysis: Meaning;** Types; Estimation of Financial; Operating and Combined Leverage.

(Credits: 2.5)

Unit II

- ➢ **Financing Decisions** (a) Cost of Capital – weighted average cost of capital and marginal cost of capital (b) Capital Structure decisions – capital structure patterns, designing optimum capital structure, constraints, Factor Affecting capital structure, various capital structure theories (c) Business risk and financial risk – operating and financial leverage, trading on equity.
- ➢ **Investment Decisions** (a) Purpose, objective, process (b) Understanding different types of projects. (c) Techniques of decision making: non-discounted and discounted cash flow approaches - payback period method, accounting rate of return, net present value, internal rate of return, modified internal rate of return, discounted payback period and profitability index. (d) Ranking of competing projects, ranking of projects with unequal lives.
- ➢ **Dividend Decisions:** Meaning and Types of Dividend; Issues in Dividend Policy; Walter Model; Gordon Model; Miller and Modigliani Model.

(Credits: 3)

Unit III

- ➢ **Management of working capital:**, Operating Cycle Method, Net Current Assets Method, Projected Balance Sheet Method
- ➢ Inventory management, Receivables management, Payables management, Management of cash and marketable securities, Financing of working capital.

(Credits :2.5)

Recommended Text Book:
- Financial Management: S.N. Maheshwari, Vikash Publishing House

Suggested Readings:
- Khan and Jain: Financial Management, Tata McGraw Hill
- M. R. Agarwal: Financial management: Garima Publication.
- I.M. Pandey: Financial Management, Vikash Publishing House
- Prasanna Chandra: Financial Management, Tata McGraw Hill
- John J. Hampton: Financial Decision Making, Printice Hall India
- PV Kulkarni: Financial Management, Himalaya Publication

Business Organization

(Credits 8)

Objective : The course aims to provide basic concepts and knowledge with regard to a business enterprise and its various functional areas.

UNIT I
- Introduction: Concept, Nature and Scope of Business; Concept of Business as a System;
- Business and Environment Interface;
- Business Objectives; Profit Maximization vs Social Responsibility of Business; Introduction to Business Ethics and Values.

(Credits: 2)

UNIT II
- Business Enterprises: Entrepreneurship – Concept & Nature; Locations of Business Enterprise (Weber's Theory);
- Government Policy on Industrial Location. Forms of Business Organization: Sole Proprietorship, Joint Hindu Family Firm, Partnership firm, Joint Stock Company, Cooperative Organization;
- Types of Companies, Choice of form of organization; Promotion of a company – Stages in formation; documentation (MOA, AOA).

(Credits: 3)

UNIT III
- Small Business: Scope and role; Government Policies. Government & Business Interface: Rationale; Forms of Government and Business Interface.
- Multinationals: Concept and role of MNCs; Transactional Corporations (TNCs); International Business Risks.
- Business Combinations: Concept and causes of business combinations; Chambers of Commerce and Industry in India; FICCI, CII, ASSOCHAM, AIMO, etc.

(Credits: 2)

Recommended Practice Sessions:

(Credit 1)

Recommended Text Book:

- P C Tulsian, Vishal Pandey : Business Organisation and Management: Pearson

Suggested Readings:
- Saha: Business Organization And Management: McGraw-Hill Education (India) Pvt Ltd
- DrRkSingla: Business Organization and Management: V K Publications

MANAGERIAL ECONOMICS

(Credits 8)

Objective:

The objective of this subject is to give understanding of the basic concepts and issues in business economics and their application in business decisions.

Unit I

➢ Introduction to Business Economics and Fundamental concepts: Nature, Scope, Definitions of Business Economics, Difference between Business Economics and Economics, Contribution and Application of Business Economics to Business.

➢ Consumer Behavior and Demand Analysis: Cardinal Utility Approach: Diminishing Marginal Utility, Law of Equi-Marginal Utility. Ordinal Utility Approach: Indifference Curves, Marginal Rate of Substitution, Budget Line and Consumer Equilibrium.

➢ Theory of Demand, Law of Demand, Movement along vs. Shift in Demand Curve, Concept of Measurement of Elasticity of Demand,

➢ Factors Affecting Elasticity of Demand, Income Elasticity of Demand, Cross Elasticity of Demand, Advertising and Elasticity of Demand.

(Credits:1.5)

UNIT II

➢ Theory of Production: Meaning and Concept of Production, Factors of Production and production function, Fixed and Variable Factors, Law of Variable Proportion (Short Run Production Analysis), Law of Returns to a Scale (Long Run Production Analysis) through the use of ISO QUANTS.

➢ Cost Analysis & Price Output Decisions: Concept of Cost, Cost Function, Short Run Cost, Long Run Cost, Economies and Diseconomies of Scale, Explicit Cost and Implicit Cost, Private and Social Cost. Pricing Under Perfect Competition, Pricing Under Monopoly, Control of Monopoly, Pricing Under Monopolistic Competition.

(Credits:1.5)

Unit III

➢ Concepts of Macro Economics and National Income Determination: Definitions, Importance, Limitations of Macro-Economics,

➢ National Income: Concepts, Definition, Methods of Measurement, National Income in India, Problems in Measurement of National Income & Precautions in Estimation of National Income.

➢ Macro-Economic Framework: Theory of Full Employment and Income: Classical, Modern (Keynesian) Approach, Consumption Function,

➢ Investment function, Concept of Marginal Efficiency of Capital and Marginal Efficiency of Investment; National Income Determination in Two Sector Model.

➢ , Inflation- Types, Causes, Impact and Remedies.

➢ Equilibrium of Product and Money Market: Introduction to IS-LM Model, Equilibrium- Product Market and Money Market, Monetary Policy, Fiscal Policy.

(Credits:4)

Recommended Practice Sessions:

(Credit 1)

Recommended Text Book

• Dwivedi, D.N.(2008) Managerial Economics, 7th edition, Vikas Publishing House.

Suggested Readings:

• Salvatore, D. ((2006)) Managerial Economics in a Global Economy, 6th edition, Oxford University Press.
• Samuelson, P &Nordhaus, W. (2009) Economics, 18th Edition, McGraw Hill Education.
•
• Kreps, D.(2009). Micro Economics for Managers, 1st edition, Viva Books Pvt. Ltd.
• Peterson, L. and Jain ((2006)) Managerial Economics, 4th edition, Pearson Education.

Data Base Management System

(Credits 8)

Objective: To develop understanding of database management system and abilities to use DBMS packages.

UNIT I
- ➢ **Introduction to Database Systems**: File System versus a DBMS, Advantages of a DBMS, Describing and Storing Data in a DBMS.
- ➢ Structure of a DBMS, People who deal with Database,
- ➢ Introduction to Data Models, Architecture of DBMS.

(Credits: 2)

UNIT II
- ➢ **Entity Relationship Model**: Overview of Database Design, Entities, attributes, and Entity Sets, Relationships and Relationship Sets, Additional Features of the ER Model,
- ➢ Conceptual Database Design with the ER Model – Entity versus Attribute, Entity versus Relationship;
- ➢ **Relational Model:** Introduction to Relational Model, Foreign Key Constraints, Enforcing Integrity Constraints, Querying Relational Data,
- ➢ **Logical Database Design:** ER to Relation, Introduction to Views, Destroying/Altering Tables and Views.

(Credits: 2)

UNIT III
- ➢ **Schema Refinement & Normal Forms:** Introduction to Schema Refinement, Functional Dependencies, Examples Motivation Schema Refinement, Reasoning About Functional Dependencies, Normal Forms, Decompositions, Normalization (Up to 3rd Normal Form)
- ➢ Concept of Objects: Objects, Tables, Queries, Forms, Reports, Modules;
- ➢ Database Creation and Manipulation; SQL Queries: the Form of a Basic SQL Query, Union, Intersect, and Expect, Aggregate Operators, Null Values.   **(Credits:3)**

Recommended Practice Sessions:

(Credit 1)

Recommended Text Book:
- Ramakrishnan, R. and Gehrke, J. (2007), Database Management Systems, 3rd edition, McGrawHill Education.

Suggested Readings:
- Kanan, A. and Date, C. J., (2006), An Introduction to Database System, Vol. I & Vol. II, 8th edition, Addison Wesley Publishing Company.
- Elmasri and Navathe, (2009), Fundamentals of Database Systems, 5th edition, Pearson Education.
- ITL Education Ltd., (2010), Introduction to Database System, Pearson Education.

- Singh. S. L., (2008), Database System Concept and Application, 2nd edition, Pearson Education.
- Atul, Kahate, (2006), Introduction to Database Management System, 1st edition Pearson Education.

- Creating Labels and Mail-Merge Documents: Using the Label Wizard, using Custom Labels, Printing Multiple Labels, Merging Access Data with Word Documents.

Women Rights and Law

(Credits-1)

Objective: The paper aims at creating awareness as to importance and role of women in society through the medium of law. It also focuses on women welfare laws.

Unit – I:Meaning of law ,Constitutional Safeguards for Women, Right to Equality (Art-14),Life & Personal Liberty, Right to Education (Art-21,21-A), Right against Sexual Exploitation (Art-23,24), Constitutional Remedies (Writs- Art-32-35), Participation in Panchayat and Municipalities, Marriage : Conditions,Ceremonies,Registration, Restitution of Conjugal Rights, Judicial Separation, Void & Voidable Marriages, Legitimacy of Children of Void & Voidable Marriages, Punishment of Bigamy, Divorce Common Grounds for Divorce, No Petition for divorce within 1year of marriage, Divorced Person when may marry again,Maintenance: Wife, widowed daughter-in-law, Children, Amount of Maintenance , Interim Maintenance, Maintenance Provisions under Cr.PC, Adoption: Requisites of a valid adoption,Capacity of a male Hindu to take in adoption, Capacity of a female Hindu to take in adoption, Persons capable of giving in adoption, Persons who may be adopted, Effects of Adoption,.

(0.5 Credit)

Unit – II:Indian Penal Code, 1860 Right of Private Defence, Dowry Death, Abetment of Suicide, Cruelty by Husband or Relatives of Husband, Sex Selection & Causing Miscarriage, Hurt & Grievous Hurt, Wrongful Restraint & Confinement, Outraging the modesty of a woman, Kidnapping and Abduction, Offences regarding Prostitution, Rape, Bigamy, Adultery, Domestic Violence, Sex Determination Test -The Medical Termination of Pregnancy Act, 1971, The Pre-Conception and Pre-Natal Diagnostic Techniques Act, 1994, Reproductive Technologies: Meaning, Concept & Challenges of A.I, IVF & Surrogacy, Right of HIV/ AIDS Victims, Introduction to Consumer Protection Act , Tenancy Act, Right to Information Act, Motor Vehicles Act, Intellectual Property Rights, Act & Rules Maternity Benefits Act 1961.

(0.5 Credit)

Recommended Books:

1. Law relating to Women – S.R.Myneni
2. Law relating to Women – Dr. S.C. Tripathi

Suggested Readings:

1. Women and Law – Prof. NomitaAggarwal
2. Women and Law – Dr. ManjulaBatra
3. Women and Law – G.P. Reddy

SECOND Year
Semester III

Research Methods in Business

(Crédits: 8)

Objective: To equip the students with the basic understanding of the research methodology and enable them to use appropriate tools and techniques for solving research problems and produce good quality research reports.

UNIT I

- Defining Research Methodology, Objectives of conducting research in business, Steps in Business Research.
- Research Design: Formulating the research problem, choice of research design, types of research design,
- Sources of experimental errors. Methods of Data Collection – Primary and Secondary Data.

Credits: 2)

UNIT II

- Sample and Sampling Design: Basic Terms, Advantages and limitations of sampling, Sampling process,
- Types of sample design, testing of hypothesis, Sampling distribution of the mean.

(Credits: 2.5)

UNIT III

- Overview of Parametric (chi-square test, t-test) and Non-Parametric tests (run test, sign test, chi-square test),
- Interpretation and Report Writing

(Credits: 2.5)

Recommended practice session: 5 Practice Sessions of Development of Questionnaires and 5 for SPSS in Computer Lab

(**Credit: 1**)

Recommended text book:
- C.R. Kothari: Research Methodology, Viswas Publication Pvt. Ltd.

Suggested Reading:
- Rao S., Research Methodology, Excel Publishing House, New Delhi
- R.S. Khandelwal and Gupta : Research Methods

Cost Accounting

(Credits: 8)

Objective: The primary objective of the course is to familiarize the students with the basic cost concepts, allocation and control of various costs and methods of costing.

UNIT I
> ➢ Meaning and Scope of Cost Accounting: Basic Cost Concepts – Elements of Costs, Classification of Costs, Total Cost Build up and Cost Sheet, Emerging Terms viz. Life Cycle Costing, Activity Based Costing, Back Flush Costing.
> ➢ Materials Control: Meaning – Steps Involved – Materials and Inventory – Techniques of Material/Inventory Control – Valuation of Inventory – Material Losses.

(Credits 3)

UNIT II
> ➢ Labour Cost Control**:** Direct and Indirect Labour, Steps Involved – Treatment of Idle Time, Holiday Pay, Overtime etc. in Cost Accounts, Casual Workers & Out Workers, Labour Turnover, Methods of Wage Payment. Incentive Plans.
> ➢ Overheads: Meaning and Classification of Overheads – Treatment of Specific Items of Overheads in Cost Accounts – Stages Involved in Distribution of Overheads – Methods of Absorption of Overheads – Treatment of Under and Over Absorption of Overheads.

(Credits 3)

UNIT III
> ➢ Methods of Costing: Single Output Costing, Job Costing, Contract & Batch Costing.
> ➢ Process Costing (including Joint Products and By-products and Inter-process Profits), Operating/Service Costing. (Transport & Power House only);

(Credits 2)

Recommended Text Book
- Maheshwari, S. N. and Mittal, S. N. (2009), Cost Accounting – Theory and Problems, 22nd Revised Edition, ShriMahavir Book Depot.
- Rajasekaran, (2010), Cost Accounting, 1st edition, Pearson Education.

Suggested Readings:
- Dutta, Mahesh, (2006), Cost Accounting - Principle Practices, 1st edition, Pearson Education.
- Arora, M.N., (2009), Cost Accounting, Vikas Publishing House.
- Lal, Jawahar and Srivastava, Seema, (2008), Cost Accounting, 4th Edition, McGraw Hill Education.
- Jain and Narang, (2008), Cost Accounting, Kalyani Publishers.

Human Resource Management

(Crédits :8)

Objective: The objective of the paper is to make student aware of the various functions and importance of the HR department in any organization. It is basically concerned with managing the human resources, whereby the underlying objective is to attract retain and motivate the human resources in any organization, which is the most challenging and daunting look for any organization today.

UNIT I: Evolution of HRM, Acquisition of Human Resources

- ➢ **Introduction:**Meaning, scope, objectives and functions of HRM; Importance of Human Resource Management;
- ➢ **Environment of HRM:**Role of government, internal and external forces; Human Resource Management practices in India.
- ➢ **Human Resource Planning:**Definition, objectives, process and importance;
- ➢ Case Studies, Group Discussion, Presentation and Seminars, Business games and quiz based on the topics of unit.

(Credits 2)

UNIT II:Selection Process

- ➢ Job analysis, description, specification & job evaluation;
- ➢ Recruitment, selection, placement and induction process;
- ➢ **Human Resource Development**: Concept, Employee training & development; promotions, demotions, transfers, separation, absenteeism & turnover;
- ➢ **Job Compensation:**Wage & salary administration, incentive plans & fringe benefits.
- ➢ Case Studies, Group Discussion, Presentation and Seminars, Business games and quiz based on the topics of unit.

(Credits 2)

UNIT III:Compensation & Maintenance

- ➢ **Performance Management**: Concept & process, performance appraisal, Potential appraisal;
- ➢ **Quality of work life (QWL):**Meaning, techniques for improving QWL.
- ➢ **Quality circles:**concept, structure, role of management; Job satisfaction and morale.
- ➢ Industrial Relations:Concept and theories, trade unions; Health, Safety & Employee welfare measures; Employee grievances and discipline, participation & empowerment; Introduction to collective bargaining.
- ➢ Case Studies, Group Discussion, Presentation and Seminars, Business games and quiz based on the topics of unit.

(Credits 3)

Recommended practice session:Practice session of 5 Group discussion and 2 Case Analysis in GD room

(credit:1)

Recommended Text Book:
- Personnal Management (Text and Cases) C.B. Mamoria& V.S.P. Rao, Himalaya Publishing House

Suggested Readings:
- Human Resource Management- Perspectives For The New Era**:** Sage Publications (i) P. Ltd
- V.S.P. Rao: Resources Management, Excel Publishing, New Delhi

- Edwin B. Flippo: Personnel Management, Tata McGraw Hill.
- ArunMonappa&Saiyadain: Personnel Management, Tata McGraw Hill
- Human Resource Management by C B Gupta: Sultan Chand (2008)

Advanced Financial Management

(Credits: 8)

Objective: Efficient Management of a business enterprise is closely linked with the efficient management of its finances. Accordingly, the objective of the course is to acquaint the students with the overall framework of financial decision-making in a business unit.

UNIT I
➢ **Sources of Financing:** Classification of Sources of Finance, Security Financing, Loan Financing,
➢ Project Financing, Loan Syndication- Book Building, New Financial Institutions and Instruments (in brief) viz.
➢ Depositories, Factoring, Venture Capital, Credit Rating, Commercial Paper, Certificate of Deposit, Stock Invest, Global Depository Receipts
➢ Role of financial manager, characteristics of financial manager, Decision considered by financial manager

(Credits :2)

UNIT II
➢ **Working Capital Management:** Introduction, Importance of capital budgeting management, advantage of working capital, Methods of Estimating Working Capital Requirement - Operating cycle Method, Net Current assets forecasting Method, Management of Cash,
➢ Inventory Management, Management of Accounts Receivable and Accounts Payable, Over and Under Trading.
➢ **Dividend Policy:** Types of Dividend, Relevance and Irrelevance Concepts of Dividend- Walter Model, Gordon Model, and M-M Model, Corporate Dividend Practices in India.

(Credits :2.5)

UNIT III
➢ Leasing V/s Hire Purchase: Operating Lease, Financial Lease, Sale and Lease back, Leveraged Leasing. Hire Purchase financing, Difference between Leasing and Hire purchase.
➢ Cost-Volume-Profit Analysis: Profit-Volume ratio, BEP, Margin of Safety, Required sales to Earn Desired Profit.
➢ Corporate Restructuring: Merger, Acquisition, Joint venture, Strategic Alliance, takeover.

(Credits: 2.5)

Recommended practice session:10 Practice session of 5 Group discussion and 2 Cases in GD room

(Credit:1)

Recommended Text Book:

- I.M Pandey: Financial Management: : Vikas Publishing House

Suggested reading:
- Khan & Jain: Financial Management : Tata McGraw-Hill
- M.R Agarwal: Financial Management : MISC

Brand Management

(Crédits :8)

OBJECTIVES : The drivers of a firm's performance at the marketplace have undergone a radical change. Brands have risen to the top of the hierarchy of assets. Financial and manufacturing related assets run common across players in an industry. Therefore brands have come to acquire an important role in transforming value on a higher plane. This course is designed to provide insight to students into the process by which brands create superior marketing results. More specifically, the course aims to develop specific competencies involved in navigating brand effectively in a dynamic marketing environment.

UNIT -I
Branding context: assets and the asset, concept of value, brand and marketing metrics; Brand meaning: brand image and personality, brand and product; Brand planning: brand vision and visioning process, business of brand;

(Crédits : 2)

UNIT -II
Brand audit: brand reality check and brand appraisal; Brand positioning: choice of context, parity and differentiation, repositioning; Brand equity: brand assets and liabilities, equity creation and management. Brand concept management: functional, symbolic and experiential brands; Managing brand over time: revitalization decisions Brand valuation: valuation process and methods;

(Crédits : 2)

UNIT -III
Leverage: concept of stretch, line and brand extensions; type of extensions, Branding strategies; portfolio decisions, optimal portfolio, portfolio structure; Brand naming decisions: names and meaning, semiotic analysis, semantic name creation. Branding across categories: commodity, industrial, service and consumer products; Branding across markets: geographies and cultures. Branding in special areas: sports, political, social cause, digital, entertainment.

(Crédits :3)

Recommended practice session : 10 Practice session of 5 Role Play& 2 Cases in GD room

(Credit:1)

Recommended Text Books:

- Building Measuring & Managing Brand Equity (3rd ed.): Keller, K. L., New Delhi: Pearson Education

Suggested Readings:
- Aaker, D. A. (1996). *Building Strong Brands*. New York: Free Press.
- Aaker, D. A. (2004). *Brand Portfolio Strategy*. New York: Free Press.
- Caperer, J. N. (2001). *Reinventing the Brand*. London: Kogan page.
- Kapferer, J. N. (2003). *Strategic Brand Management*. London: Oxford University Press.
- Keller, K. L. (2008*). Best Practice Cases in Branding*. New Delhi: Pearson.
- Keller, K. L. (2008). *Strategic Brand Management: Building Measuring & Managing Brand Equity* (3rd ed.). New Delhi: Pearson Education.
- Ries, Al., &Ries, L. (2004). *The Origins of Brands*. New York: Collins.
- Tybout, A., & Calkins, T. (2006). *Kellogg on Brand Management*. New Delhi: Wiley
- Verma, H. V. (2010). *Branding Demystified: From Plans to Payoffs*. New Delhi: Response Books (Sage).
- Verma, H. V. (2007). *Brand Management*: T*ext and Cases*. New Delhi: Excel Books.

ENVIRONMENTAL SCIENCE AND DISASTERMANAGEMENT

(Credits: 1)

Objective: To enable students to aware about the Environmental Science for sustainable development and also about the Disaster Management for precautionary as well as rescue purpose.

UNIT I : (Ecosystem and pollution)
Theory
Environmental Science and Ecosystem: Definition, scope and importance, Concept of Ecosystem, Ecological Pyramids, and Functions of Ecosystem: brief idea of energy flow. Environmental Pollution and other Problems: Definition, Causes, Effect, Control and preventive measures of air, water, noise, nuclear pollution. Global problems: Climate change, global warming, Ozone layer depletion and Acid Rain.

(Credit: 0.25)

UNIT II : (Biodiversity and Conservation)

Theory
Biodiversity and its Conservation: Definition, Types and Importance, Spots of Biodiversity, Endangered and Endemic Species of India, Threats to Biodiversity, Habitat loss, Poaching of wild life, Conservation of Biodiversity: Brief idea of *in situ* and *ex situ* conservation of Biodiversity.   Brief idea of Natural Resources and their conservation

(Credit: 0.25)

UNIT III: (Concept and Types of Disaster)

Theory
Concept and definitions (Disaster, Hazard, Vulnerability, Resilience, Risks), Disaster: classification, causes, impacts (including social, economic, political, environmental, health, psychosocial, etc), Differential impacts-in terms of caste, class, gender, age, location, disability, Global trends in disasters, urban disasters, pandemics, complex emergencies, climate change, Disaster cycle-its analysis, phases, culture of safety, prevention, mitigation, and preparedness, community based DRR, Structural –non structural measures, roles and responsibilities of community, Panchayati Raj Institutions/Urban Local Bodies (PRIs/ULB,s) states, Centre and other stake-holders.

(**Credit: 0.25)**

UNIT IV (Components and Management of Disaster)
Theory
Factors affecting Vulnerabilities, differential impacts, impact of development projects such as Dams, embankments, changes in Land use etc, Climate change Adaptation, Relevance of indigenous knowledge, appropriate technology and local resources, Disaster risk Management in India: Hazard and Vulnerability profile of India, Components of Disaster Relief: Water, Food, Sanitation, Shelter, Health, Waste Management, Institutional arrangements (Mitigation, Response and Preparedness, DM Act and Policy, Other related policies, plans, programs and legislation, Project Work: (Field Work, Case Studies)

(**Credit: 0.25)**

Recommended Text Books:

1. "Disaster Management (2003)"- H.K. Gupta
2. Elements of Environmental Science (2012) Kaushik and Kaushik

Suggested readings:

1) P. Bakre, V. Bakre and V. Wadhwa. 2005. ParyavarniyaAdhyyan. Rastogi Publications, Meerut.
2) E. Bharucha. 2005. Environmental Studies. University Press, Hyderabad.
3) G.R. Chatisel and H. Sharma. 2005. A Text Book of Environmental Studies. Himalaya Publishing House, Delhi.
4) J.P. Sharma. 2005. Environmental Studies. Laxmi Publications Ltd., Jalandhar.
5) S.V.S. Rana. 2007. Environmental Studies. Rastogi Publications, Meerut.
6) P.D.Sharma .2008. Environmental Science. RastogiPublication , Meerut.

SECOND YEAR
Semester IV

Business Environment

(Credits: 7)

Objective: The basic objective of this course is to familiarize the students with the nature and dimensions of evolving business environment in India to influence managerial decisions.

UNIT I

➢ An Overview of Business Environment: Type of Environment-Internal, External, Micro and Macro Environment,
➢ Competitive Structure of Industries, Environmental Analysis and Strategic Management, Managing Diversity, Scope of Business,
➢ Characteristics of Business, Objectives and the Uses of Study, Process and Limitations of Environmental Analysis.

(Credits 1.5)

UNIT II

➢ Economic Environment: Nature of Economic Environment, Economic, Nature and Structure of the Economy, Monetary and Fiscal Policies, Competition Act, 2009.
➢ Socio-Cultural Environment: Nature and Impact of Culture on Business, Culture and Globalization, Social Responsibilities of Business, Business and Society,
➢ Social Audit, Business Ethics and Corporate Governance.

(Credits 2.5)

UNIT III

➢ Political Environment: Functions of State, Economic Roles of Government, Government and Legal Environment,
➢ The Constitutional Environment, Rationale and Extent of State Intervention.
➢ Natural and Technological Environment: Innovation, Technological Leadership and Followership,
➢ Sources of Technological Dynamics, Technology Transfer, Time Lags in Technology Introduction, Status of Technology in India.
➢ Management of Technology, Features and Impact of Technology.

(Credits 2)

Recommended Practice Sessions: 10 practice sessions of GD and case studies.

(Credit 1)

Recommended Text Book
• Shaikh, Saleem, (2010), Business Environment, 2nd edition,Pearson Education.
• Cherunilam, Francis, (2007), Business Environment - Text and Cases, Himalaya Publishing House.

Suggested Readings
• Aswathappa, K., (2000), Essentials of Business Environment, 7th edition, HimalayaPublishing House.
• Gupta C. B., (2008), Business Environment, 4th edition, Sultan Chand.
• Bedi, Suresh, ((2004)), Business Environment Excel Book.
• Ian Worthington, Chris Britton, (2009), Business Environment, Pearson Education.

Business Ethic and Corporate Governance

(Credits: 7)

Objective: The basic objective of this paper is to make the students realize the importance of values and ethics in business. This course endeavors to provide a background to ethics as a prelude to learn the skills of ethical decision-making and, then, to apply those skills to the real and current challenges of the information professions.

UNIT I

➢ Introduction: Concept of Values, Types and Formation of Values, Values and Behaviour, Values of Indian Managers,
➢ Ethical Decision Making. Ethics: Management Process and Ethics, Ethical Decision Making, Ethical Issues, Ethos of Vadanta in Management, Relevance of Ethics and Values in Business

(Credits :1.5)

UNIT II

➢ Knowledge and Wisdom: Meaning of Knowledge and Wisdom, Difference between Knowledge and Wisdom, Knowledge Worker versus Wisdom Worker,
➢ Concept of Knowledge Management and Wisdom management, Wisdom Based Management.
➢ Stress Management: Meaning, Sources and Consequences of Stress, Stress Management and Detached Involvement.
➢ Concept of Dharma & Karma Yoga: Concept of Karama and Kinds of Karam Yoga, Nishkam Karma, and Sakam Karma; Total Quality Management, Quality of life and Quality of Work Life.

(Credits :2.5)

UNIT III

➢ Understanding Progress, and Success - Results & Managing Transformation: Progress and Results Definition, Functions of Progress, Transformation, Need for Transformation, Process & Challenges of Transformation.
➢ Understanding Success: Definitions of Success, Principles for Competitive Success, Prerequisites to Create Blue Print for Success. Successful Stories of Business Gurus.
➢ Corporate Social Responsibility & Corporate Governance: Corporate Responsibility of Business: Employees, Consumers and Community, Corporate Governance, Code of Corporate Governance, Consumer Protection Act, Unethical issues in Business.

(Credits :2)

- **Recommended Practice Sessions: 10 practice sessions of GD and case studies.**

(Credit :1)

Recommended Text Book

- Fernando, A.C., (2009), Business Ethics, 1st edition, Pearson education.
- Hartman,Laura and Chatterjee, Abha, (2006), Perspectives in Business Ethics, 3rd Edition, McGraw Hill Education.

Suggested Readings:

- Chakraborty, S.K., (2004), Ethics in Management: A Vedantic Perspective, Oxford University Press.
- Kaur, Tripat, (2008), Values & Ethics in Management, Galgotia Publishers.
- Rao, A.B., (2006), Business Ethics and Professional Values, Excel Book.
- Manuel G.Velasquez, (2007), Business Ethics Concepts, Printice Hall of India.

Management Accounting

(Credits: 7)

Objective: The objective of the course is to familiarize the students with the basic management accounting concepts and their applications in managerial decision making.

UNIT I

➢ Management Accounting: Nature and Scope, Financial Accounting, Cost Accounting and Management Accounting, Advantages and Limitations of Management Accounting, Role of Management Accountant.
➢ Introduction of Financial Analysis: Financial Statements and their Limitations, Concepts of Financial Analysis, Tools of Financial Analysis: Comparative Financial Statements, Common Size Financial Statements, Trend Percentages, Ratio Analysis, Fund Flow and Cash Flow Analysis.

(Credits:2)

UNIT II
➢ Ratio Analysis: Nature and Interpretation, Classification of Ratios, Profitability Ratios, Turnover Ratios, Financial Ratios, Utility and Limitations of Ratios, DUPOINT Control Chart.
➢ Funds Flow Analysis: Concept of Funds Flow Statement, Sources and Uses of Funds, Managerial Uses of Funds Flow Analysis, Construction of Funds Flow Statement,
➢ Cash Flow Analysis: Distribution of Cash from Funds, Utility of Cash Flow Statement, Accounting Standard 3 (AS 3: Revised), Construction of Cash Flow Statement.

(Credits:3)

UNIT III

➢ Budgets and Budgetary Control: Concept of Budgets and Budgetary Control, Advantages and Limitations of Budgetary Control, Establishing a System of Budgetary Control,
➢ Preparation of Different Budgets, Fixed and Flexile Budgeting, Performance Budgeting and Zero Base Budgeting,
➢ Concept of Responsibility Accounting – Types of Responsibility Centers.

(Credits:2)

Recommended Text Book:
• Management Accounting :Theory, Problems and Solutions: M.N. Arora, Himalaya Publishing House

Suggested Readings:
• Bhattacharya, (2010), Management Accounting, 1st edition, Pearson Education.
• Maheshwari, S.N., (2009), Principles of Management Accounting, Sultan Chand & Sons.
• Khan, M.Y, and Jain, P.K., (2009), Management Accounting, 5th Edition, McGraw Hill Education.
• Gurusamy, Murthy,S., (2009), Management Accounting, 2nd Edition, McGraw Hill. Education.
• Pandey, I.M., (2008), Management Accounting, 3rd Edition, Vikas Publishing House, Delhi.
• Horngren, Charles, (2009), Introduction to Management Accounting, 5th Edition, Pearson Education.

Principles of Banking

(Credits: 7)

Objective: The course has been designed to develop understanding of basic concepts of banking and career opportunities available after this course.

UNIT I

- Indian Banking System: Evaluation of Banking Institutions; Banking System of India;
- Different Banking Institutions in India, their role and functions;
- Regulatory framework of Banking in India;
- Functions of Commercial Banks; Sound Commercial Banking principles.

(Credits: 1.5)

UNIT II

- Bank Balance-Sheet; Basic operations of Banks; Bankers; Customer relationship;
- Payment and Collection of cheques and other negotiable instruments; opening of accounts of various types of customers.
- Loans and Advances: Principles of sound bank lending; Different types of loans; Credit appraisal techniques; Credit management and credit monitoring;

(Credits: 2.5)

UNIT III

- Sources and Uses of Funds in Banks; Value Chain Analysis in Banking Industry.
- Emerging trends in Banking: Universal Banking, Venture Capital, Project Financing, Merchant Banking, E-Banking, Credit Cards, Banking Ombudsman Scheme.

(Credits: 2.5)

Recommended Practice Sessions: 5 practice sessions of GD and case studies.

(Credit :0.5)

Recommended Text Book:
- Sundaram&Varshney, " Banking, Theory Law and Practice" Sultan chand& sons;2004
- Chaturvedi D.D., Anand Mittal, " Business Economics-II", Brijwasi Book Distributors;2005
- Varshney&Malhotra, "Principles of Banking",Sultan Chand & Sons, 2005.

Suggested Readings:
- Vaish M.C, *"Money, Banking and International Trade"*, New Age International Pvt.Ltd, 1997
- Gordon.E, Natarajan.K.,*"Banking, Theory, Law & Practice",* Himalaya Publishing House, 2003.

Legal Aspects of Indian Business

(Credits :7)

Objective: To understand the concept of Ethics and its role in business life for corporate growth.

UNIT I

➢ Indian Contract Act, 1872 (Fundamental Knowledge): Essentials of Valid Contract, Discharge of Contract,
➢ Remedies for Breach of Contract;
➢ Contracts of Indemnity, Guarantee, Bailment, Pledge and Agency.

(Credits :1.5)

UNIT II

➢ Sale of Goods Act 1930: Meaning of Sale and Goods,
➢ Conditions and Warranties, Transfer of Property, Rights of an unpaid seller.
➢ The Negotiable Instruments Act 1881 – Essentials of a Negotiable Instruments, Kinds of Negotiable Instrument, Holder and Holder in Due Course, Negotiation by Endorsements, Crossing of a Cheque and Dishonour of a Cheque.

(Credits :2.5)

UNIT III

➢ The Companies Act 1956 (Basic elementary knowledge): Essential characteristics of a Company, Types of Companies,
➢ Memorandum and Articles of Association, Prospectus, Shares – Kinds, Allotment and Transfer, Debentures, Essential conditions for a valid Meeting, Kinds of Meetings and Resolutions;
➢ Directors and Remuneration, Directors, Managing Directors-their Appointment, Qualifications, Powers and Limits on their Remuneration, Prevention of Oppression and Mismanagement.

(Credits :2.5)

Recommended Practice Sessions: 5 practice sessions of GD and case studies.

(Credit :0.5)

Recommended Text Book:

• Pathak, Akhileshwar, (2009), Legal Aspects of Business, 4th Edition, McGraw Hill Education.
• Kuchhal, M. C., (2006), Business Law, Vikas Publishing House, New Delhi.

Suggested Readings:

• Singh, Avtar, (2006), Company Law, Eastern Book Co. Lucknow, Bharat Law House, Delhi.
• Bagrial, Ashok, (2008), Company Law, Vikas Publishing House.
• Kapoor, N. D., (2006), Elements of Mercantile Law, Sultan Chand & Sons, New Delhi.
• A.Ramaiyya, Guide to the Companies Act, 16th edition, Lexis NexisButterworths

THIRD YEAR
V Semester

Quantitative Techniques

(Credits: 7)

Objective: The objective of this paper is to develop student's familiarity with the basic concept and tools in quantitative techniques. These techniques assist specially in resolving complex problems serve as a valuable guide to the decision makers.

UNIT I
➢ Quantitative techniques: Introduction, importance, limitations. Matrices: Types of matrices, matrix algebra, addition, subtraction and multiplication of matrices, determinants, minors and co-factors,
➢ Inverse of matrix, solution of linear equation by Cramer's and Inverse method and applications of matrices.

(Credits : 2.5)

UNIT II
➢ Probability**:** Basic concepts, definition, additional and multiplication laws of probability, Bayes' theorem, conditional probability;
➢ Theoretical Distributions, Binomial, Poisson and Normal Distribution.
➢ Assignment Problems: Formulation in the form of matrix, Hungarian method of assignment problem, Balanced, Unbalanced, Maximization, Mixed and Restriction problem in assignment.

(Credits : 2.5)

UNIT III
➢ *Transportation problems*: General Structure of Transportation Problem, Different Methods for Finding Initial Solution by North-West Corner Rule, Least Cost Method and Vogel's Approximation Method, Testing for Optimality by MODI Method.
➢ Queuing Theory: Queuing Model, Definition of Terms, Characteristics of a Queuing system, Solution of Queuing Model, Single server queuing model only.

(Credits : 2)

Recommended Text Book:
- S.P. Gupta: Statistical Methods, Sultan Chand & Sons, New Delhi.
- V.K. Kapoor: Operations Research, 7th Sultan Chand

Suggested Readings:
- J.K. Sharma: Business Statistics, Pearson Publication, New Delhi.
- P.N. Arora& S. Arora: Statistics for Management, S. Chand &Co., New Delhi.
- M.P. Gupta & S.P. Gupta: Business Statistics, Sultan Chand & Sons, New Delhi.
- R.S. Bhardwaj: Business Statistics, Excel Publishers.

Indian Financial System

(Credits :7)

Objective: To give a detailed idea about the Indian financial system and its broad components.

UNIT I

- Indian financial system – an overview. Money market – call money market – commercial paper market – commercial bill market – certificates of deposits – Treasury bill market – gilt edged securities market.
- Capital market – overview - capital market instruments - capital market reforms –primary markets methods of raising funds from primary market- public issue – emerging trends.

(Credits 2)

UNIT II

- **Financial services- nature –** characteristics – role of financial services in economic development – relevance of the study of financial services – factors influencing the growth and development of financial services industry – types of financial services

- **Merchant banking** – historical perceptive – nature of services provided by Merchant bankers – structure of merchant banking firm – setting up and managing a merchant bank – SEBI regulations on **merchant banks** – under writing – stock broking – depositories – tax planning services – port folio management services – factoring services and practices – card business – credit cards and debit cards.

(Credits 2.5)

UNIT III

- **Credit rating:** approaches and process of rating – credit rating agencies – CRISIL and ICRA, CARE ratings for financial instruments – methodology of rating.

- **Leasing:** concepts and classification of leasing – present legislative frame work of leasing.

- Stock exchange business and practices – insurance – role of insurance in financial frame work – general insurance – life insurance – marine insurance and others.

(Credits 2)

Recommended Practice Sessions: 5 practice sessions of GD and case studies.

(Credit 0.5)

Recommended Text Book:

- L.M. Bhole: Financial Institutions and Market
- I. Friend M Blume, J Crocket: Mutual Funds and other Institutional Investors

Suggested Readings:

- N.J.Yasaswy: Personal Investment and Tax Planning
- Julia Holyoake, William Weipers: Insurance 4th edition
- M.Y.Khan: Financial Services
- Sriam. K: Hand book of leasing, Hire purchase and Factoring.
- Bhatt. R.S : Financial system for economic development

Training & Development

(Credits 7)

Objective: To gain an in-depth understanding of the concepts, tools and techniques of management training, and, to learn to design and use methods for management development.

UNIT I
- Training process an overview; Training and development; Learning and skill acquisition; Role, responsibilities and challenges to training managers
- Relationship between HRD and business strategies; Skill inventory; Scanning the environment for training areas; Organizational analysis for training.

(Credits: 2)

UNIT II
- Organization and management of training function; Learning process; Learning and Knowledge management; Various tools and models.
- Training climate and pedagogy – developing training modules – training methods and techniques- facilities planning and training aids.

(Credits: 2)

UNIT III

- Technical training – training for TQM – attitudinal training – training for management change – training for productivity – training for creativity and problem solving – training for leadership and training for trainers. Training communication- Training evaluation – evaluation methods – cost benefit analysis.
- Management Development (MD): objectives of Management Development; Methods of Management Development; Various models of management development.

(Credits: 2)

Recommended Practice Session: Practice Sessions of 10 G.D. & 2 Case study in G.D. Room

(Credit 1)

Recommended Text Book:
- Neo Raymond A.: Employee Training And Development (Special Indian Edition): Tata McGraw Hill

Suggested Readings:

- S K Bhatia: Training and Development: Deep & Deep Publications
- Dr B Rathan Reddy: Effective Human Resource Training and Development Strategy: Himalaya
- Janakiram B: Training & Development: WILEY INDIA PVT.LTD

Industrial Relations

(Credits 7)

Objective: To sensitize the students to the tasks of industrial relations, and, To familiarize them with the current IR practices.

UNIT I

- Industrial relations perspectives; IR and the emerging socio-economic scenario- IR and the state- legal framework of IR; Industrial conflict and disputes.
- Salient features of Industrial Employment (Standing Orders) Act, 1946.

(Credits 2.5)

UNIT II
- IR and Trade Unions; Role and future of trade unions; Trade union and the employee; Industrial unrest; Trade union and the management; Plant level labor relations; Works committees; Joint management committees.
- Discipline and grievance management; Negotiation and collective settlements; Participative management and co-ownership; Productivity bargaining and gain sharing.

(Credits 2)

UNIT III

- Employee empowerment and quality management; Quality circles; Employee suggestion schemes; Industrial relations and technology management.
- Role of state in IR; Labor office, labor courts and industrial tribunals; Conciliation and mediation.

(Credits 2)

Recommended Practice Session:Practice Sessions of 5 Case studies and G.D.

(Credit 0.5)

Recommended Text Books:

- Niland J.R. el, The Future of Industrial Relations, Sage Publications, New Delhi 1994.
- Mamkootam, K, Trade Unionism–Myth and Reality, Oxford University Press, New Delhi 1982.

Reference Books:

- PapolaT.S.and Rodgers, Labor Institutions and Economic Development in India, ILO, Geneva, 1992.
- Ramaswamy , E.A, The Rayon Spinners The Strategic Management of Industrial Relations, Oxford University Press, New Delhi 1994.
- Virmani, B.R., Participative Management vs Collective Bargaining, Vision Books, New Delhi,1988.

INTERNATIONAL MARKETING

(Crédits: 7)

OBJECTIVES

The course is designed to enable students to acquire expertise in developing marketing strategies for countries other than their own. The course will help them to understand to deal with international marketing situations and the impact of international competitors.

UNIT -I

➢ **International market environment:** identifying and analyzing opportunities in the international trading environment-understanding the changes in the world trading environment-IMF, WTO, World Bank. The C factors-countries, currency, competitors.

➢ **Types of international marketing:** Contract manufacturing, joint venture, and foreign direct investment (FID).

➢ **Understanding customer buying behavior:** consumer, business, institutional in different countries at different stages of economic and political development-using marketing research to identify opportunities, similarities and differences.

(Credits :2)

UNIT -II

➢ **International marketing research**: MR agency selection-the use of comparative analysis in international market appraisal- the development of international market strategy- international marketing planning.

➢ **International product management**: portfolios, standardization and adaptation. Evaluation of stability with reference to marketing and financial implications.

(Credits :2)

UNIT -III

➢ **Marketing communication**: availability, constraints, suitability, selection of agencies.

➢ **Distribution and logistics**: foreign market channel management. Appropriateness for financial, distribution, marketing and international trade purposes, customer service levels-demand generation and costs.

➢ **Pricing strategies**: skimming and penetration pricing; currency considerations in exporting and in international marketing.

➢ **Evaluating and controlling**: particular difficulties in evaluating and controlling international marketing strategy

(Credits :2)

Recommended Practice Session: Practice Sessions of 10 G.D. & 2 Case study in G.D. Room

(Credit :1)

Recommended Text Book:

• **Global Marketing Management by Masaaki Kotabe, KristiaanHelsen**

Suggested Readings:
• Kotler, P. Keller K.I. et al: Marketing Management, A South Asian Perspective.
• Cundiff, W.F. and Still R,: Basic Marketing.
• **International Marketing by Michael R. Czinkota, Illka A. Ronkainen**

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

THIRD YEAR
VI Semester

Operations Research

(Credits: 8)

Objective: The objective of this paper is to develop student's familiarity with the basic concept and tools in operations research. These techniques assist specially in resolving complex problems serve as a valuable guide to the decision makers.

UNIT I

➢ **Operations Research:** Definition, objective of operations research, Application and Scope, Features, Methodology and Limitations.
➢ **Theory of Games:** Two person zero sum game, Principles to solve the game, Methods of solution- Saddle point, Oddment Method, Sub-game method, Graphical Solution and Principle of Dominance.

(Credits: 2)

UNIT II

➢ **Decision Theory**: Components of a Decision Problem, Types of decision making Environment, Criteria for Decision Making under Uncertainty- Maxi-max, Maxi-min, Mini-max Regret, Hurwitz, Laplace, Decision Making under Risk- EMV, EOL, and EVPI, Bayesian Decision Rule, Decision Tree Analysis.
➢ **Simulation Technique**: Introduction, Application Areas of Simulation, Advantages of Simulation, Monte Carlo Simulation Technique, Problems Related to Maintenance, Demand and Supply, Assembly Line, Investment, Queuing Problem etc.
➢ Inventory Management:

(Credits: 3)

UNIT III

➢ **Linear Programming**: Introduction, Formulation in LPP, Methods of Solution- Graphical and Simplex Method, Degeneracy in LPP, Problem Related to Unrestricted Variable, No-Feasible Solution, Unbounded Solution, Alternative Optimal Solution, Two Phase method and Duality in LPP.
➢ **Replacement Problem:** Introduction, Replacement of Items that Deteriorate with Time (Without Change in Money Value), Replacement of Items that Deteriorate with Time (Money value also Changes).

(Credits: 2)

Recommended Practice Session: Practice Sessions of 10 G.D. & 2 Case study in G.D. Room

(Credit: 1)

Recommended Text Book:
• Operation research by V.K Kapoor
Suggested Readings:

• Quantitative Techniques by N.P Agarwal
• Quantitative Techniques by N.D Vohra

Entrepreneurship Development

(Credits: 8)

Objective: It provides exposure to the students to the entrepreneurial cultural and industrial growth so as to prepare them to set up and manage their own small units.

UNIT I

- Introduction: The Entrepreneur: Definition, Emergence of Entrepreneurial Class; Theories of Entrepreneurship.
- Characteristics of an Entrepreneur – Why Start an Enterprise; Entrepreneur as an Inventor, Innovator, and Imitator; Difference Between an Entrepreneur and A Manager; Functions of an Entrepreneur; Types of Entrepreneurs; Entrepreneurial Characteristics & Skills. Disadvantages of Being an Entrepreneur.

(Credits :2)

UNIT II

- Promotion of a Venture: Opportunity Analysis; External Environmental Analysis Economic, Social and Technological; Competitive factors; Legal requirements of establishment of a new unit and Raising of Funds; Venture Capital Sources and Documentation Required.
- Entrepreneurial Behavior: Innovation and Entrepreneur; Entrepreneurial Behavior and Psychotheories, Social responsibility. Entrepreneurial Development Programmes (EDP): EDP, Their Role, Relevance and Achievements; Role of Government in Organizing EDP's Critical Evaluation.

(Credits: 3)

UNIT III
- Role of Entrepreneur: Role of an Entrepreneur in Economic Growth as an Innovator, Generation of Employment Opportunities, Complimenting and Supplementing Economic Growth,
- Bringing about Social Stability and Balanced Regional Development of Industries: Role in Export Promotion and Import Substitution, Forex Earnings.

(Credits: 2)

Recommended Practice Session: Practice Sessions of 10 G.D. & 2 Case study in G.D. Room

(Credit :1)

Recommended Text Book:

Hisrich, Robert and Peters, Michael, (2002), Entrepreneurship, 5th Edition, McGraw Hill Education.
Charantimani, (2006), Entrepreneurship Development and Small Business Enterprise, 1st edition, Pearson Education.

Suggested Readings:
- Chandra, Ravi, (2003), Entrepreneurial Success: A Psychological Study, Sterling Publication Pvt. Ltd., New Delhi.
- Balaraju, Theduri, (2004), Entrepreneurship Development: An Analytical Study, Akansha Publishing House, New Delhi.
- David, Otes, (2004), A Guide to Entrepreneurship, Jaico Books Publishing House, Delhi.
- Kaulgud, Aruna, (2003), Entrepreneurship Management, Vikas Publishing House, Delhi.

Strategic Management

(Credits:8)

Objective: The course aims to acquaint the students with the nature, scope and dimensions of Business Policy and Strategy Management Process.

UNIT I

- ➢ Introduction: Nature, Scope and Importance of Business Policy; Evolution; Forecasting, Long-Range Planning, Strategic Planning and Strategic Management.
- ➢ strategic analysis, strategic choice, and strategy implementation
- ➢ Strategic Management Process: Formulation Phase – Vision, Mission, Environmental Scanning, Objectives and Strategy; Implementation phase – Strategic Activities, Evaluation and Control.

(Credits:2)

UNIT II

- ➢ Environmental Analysis: Need, Characteristics and Categorization of Environmental Factors; Approaches to the Environmental Scanning Process – Structural Analysis of Competitive Environment; ETOP a Diagnosis Tool.
- ➢ Analysis of Internal Resources: Strengths and Weakness; Resource Audit; Strategic Advantage Analysis; Value-Chain Approach to Internal Analysis
- ➢ Concept of Restructuring and reengineering ,
- ➢ Methods of Analysis and Diagnosing Corporate Capabilities – Functional Area Profile and Resource Deployment Matrix, Strategic Advantage Profile; SWOT analysis.

(Credits: 3)

UNIT III

- ➢ Formulation of Strategy: Approaches to Strategy formation;
- ➢ Major Strategy options – Stability, Growth and Expansion, Diversification, Retrenchment, Mixed Strategy;
- ➢ Choice of Strategy – BCG Model; Stop-Light Strategy Model; Directional Policy Matrix (DPM) Model,
- ➢ Product/Market Evolution – Matrix and Profit Impact of Market Strategy (PIMS) Model;
- ➢ Major Issues involved in the Implementation of strategy: Organization Structure; Leadership and Resource Allocation.

(Credits: 2.5)

Recommended Practice Session: Practice Sessions of 5 G.D. & 1 Case study in G.D. Room

(Credit: 0.5)

Recommended Text Book
- Kazmi, Azhar, (2008), Strategic Management and Business Policy, 3rd Edition, McGraw Hill Education.
- Ghosh, P. K., (2006), Strategic Planning and Management, 8th Edition, Sultan Chand & Sons, New Delhi.

Suggested Readings:
- Walker, Gordon, (2005), Modern Competitive Strategy, 1st Edition, McGraw Hill Education.

Capital Markets &Security Analysis
Max. Marks: 100

(Credits: 8)

Objective: To provide a conceptual understanding of the function of capital markets, to develop the analytical and research skills of the student by analyzing a specific problem or issue related to capital markets and to analyze the international integration of capital markets and its policy implications with emphasis on global developments.

UNIT I
- ➢ Concept of Security: Concept of security analysis, portfolio management. Investment – Concept, features, importance, types.
- ➢ Types of security-Equity shares, Preference shares, investment objectives and constraints-security and no security forms of investment, Bonds or fixed income securities.

(Credits: 2)

UNIT II

- ➢ Securities markets: Primary market – Concept of capital issue, features, functions and investors and investors protection.
- ➢ Secondary market – structure, functions, products and features. Development of stock market in India. Concept of listing, membership, trading and settlement procedure and Demat.

(Credits: 2)

UNIT III

- ➢ SEBI and its Regulation; Constitution of SEBI, Power and functions of SEBI. Regulation of Securities market. SEBI's role in the Primary and secondary market. Mutual Funds; Management types and role in capital market.
- ➢ Security Analysis; Introduction, Technical, Economic, Industrial and Company analysis. Security trading, dealing and organization. Security credit ratings.

(Credits: 3)

Recommended Practice Sessions: 10 practice sessions of GD and case studies.

(Credit: 1)

Recommended Text Book:
- H K Singh, Meera Singh: Mutual Funds and Indian Capital Market: Kanishka

Suggested Readings:
- E Gordon, Dr K Natarajan: Capital Market in India: Himalaya
- K KAgarwal: Capital Market in India: Anmol Publications
- Asis Kumar Pain: Capital Market In India: Revitalizing The Economy: ICFAI

Advertising & Sales Promotion Management

(Credits: 8)

Objective: The course has been designed to understand the advertising process and advertising industry structure thoroughly. Each component of advertising has been covered to give the student over all importance of advertising in corporate communications. The syllabus also emphasizes on the integrated study of advertising along with brand building and management

UNIT I
- ➢ The Process: Advertising And Integrated Brand Promotion in Business and Society what is advertising, advertising as a communication process, Advertising as business process, Types of advertising, the economic effects of advertising.
- ➢ The structure ofadvertising industry - The scope and structure of advertising industry, Trendsadvertising and promotion industry, The evolution of promoting and advertising brands - Fundamental influences on evolution of advertising industry, Brand entertainment, Social, ethical and regulatory aspects of advertising

(Credits: 2)

UNIT II
- ➢ The Planning: Analyzing The Advertising And Integrated Brand Promotion Environment. The consumer as a decision maker, Modes of consumer decision making, Consumer as a social being, Market segmentation, positioning and the value proposition -
- ➢ Identifying the target segments, Segment profiling and targeting, positioning strategies, Advertising and promotion research - Developmental advertising and promotion research, Copy research, Planning advertising and integrated brand promotion, Advertising plan and its marketing context, Communication objectives v/s sales objectives, Advertisement Budgeting, Role of advertising agency in advertisement planning, Advertisement planning : An international perspective

(Credits: 3)

UNIT III
- ➢ Preparing The Message Creating brands, in general and across domains, Advertising agencies, creative process and the product, Message strategy - Essential message objectives and strategies, Copy writing - Copy writing and creative plan, Copy writing for print advertisements, Copy writing for cyber space, Copy writing for broadcast advertisements, The copy approval process, Art direction and production - Illustration, design and layout production in print advertising, Art direction and production in television advertising
- ➢ Placing The Message In Conventional And New Media World of promotional media, Fundamentals of media planning, Media planning process, media strategies, media choices, Contemporary essentials, Media choice and integrated brand promotion, Media planning - Strategic planning considerations in media choice

(Credit 2.5)

Recommended Practice Sessions: 10 practice sessions of GD and case studies.

(Credit: 0.5)

Recommended Text Book:
- S A Chunawalla: Advertising Sales and Promotion Management: Himalaya

Suggested Readings:
- S H HKazmi, Bhartiya Vidya Bhawan, Satish K Batra: Advertising and Sales Promotion: Excel
- Agarwal Pk: Advertising Sales Promotion: PRAGATI PRAKASHAN

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

Faculty of Law and Governance
Department of Law

BACHELOR OF LAW
L.L.B

SESSION – 2022-23

DURATION –3YEARS/6SEMESTER

SYLLABUS FOR:
1-3YEARS

PROGRAM DETAIL

Name of Program	-	Bachelor of Law
Program Code	-	LLB
Mode of Program	-	Semester
Duration of Program	-	3 yrs/6 Semester
Total Credits of Program	-	320
Curriculum Type and Medium Choice	-	English

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

SYLLABUS DETAIL

I SEMESTER

S. No.	Credit	Name of Course
1	8	Law of Contract
2	8	Law of Torts
3	8	Human Right Law
4	8	Right to Information Law
5	8	Environmental Law
6	8	Jurisprudence
7	4	General English
8	4	Computer fundamentals
Total	56	

II SEMESTER

S. No.	Credit	Name of Course
1	8	Special Contract
2	8	Company Law
3	8	English and Legal Language
4	8	Principles of Labour Law
5	8	Principles of Taxation Law
6	8	Property Law & Easement
Total	48	

III SEMESTER

S. No.	Credit	Name of Course
1	8	Law of Crime(Principles)
2	8	Hindu Law
3	8	Instruction to Constitution
4	8	Labour Law Specific
5	8	Insurance Law
6	8	Interpretation of Statutes and principles of Legislation
7	8	Professional Ethics and Professional Accounting System
Total	56	

IV SEMESTER

S. No.	8	Name of Course
1	8	Law of Crime(Specific)
2	8	Muslim Law
3	8	Basic of Indian Constitutional Law
4	8	Drafting, Pleading and Conveyancing
5	8	Criminology and Penology
6	8	Forensic Science & Law
7	56	Administrative Law
Total		

V SEMESTER

S. No.	Credit	Name of Course
1	8	Introduction to Code of Civil Procedure & Limitation
2	8	Introduction to Code of Criminal Procedure & Limitation
3	8	Law of Evidence
4	8	Health Care Law
5	8	Alternative Dispute Resolution Laws and Legal Service Authority Act, 1987
6	8	Rajasthan Land Law
Total	48	

VI SEMESTER

S. No.	Credit	Name of Course
1	8	Code of Civil Procedure & Limitation
2	8	Code of Criminal Procedure
3	8	Public International Law
4	8	Private International Law
5	8	Moot court exercise and internship
6	8	Media and Law
7	8	French
Total	56	

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

Curriculum
LL.B Three Year
(I sem)

Nature of Course	Course Name	C	T	P
Core Law	Law of Contract	8	5	3
Core Law	Law of Torts	8	5.5	2.5
Core Sociology	Human Right Law	8	5	3
Core History	Right to Information Law	8	5	3
Core Political	Environmental Law	8	5	3
Core Law	Jurisprudence	8	5	3
Core Information Technology	Computer Fundamentals	4	2	2
Core General English	General English	4	2	2
University Compulsory Course	Community Development Activities(CDA) & Extra Curricular Activities(ECA)	2	0	2
Total Credits		58	34.5	23.5

LL.B Three Year
(II sem)

Nature of Course	Course Name	C	T	P
Core Law	Specific Contract	8	5	3
Core Law	Company Law	8	5	3
Core Law	English and Legal Language	8	5	3
Core Sociology	Principles of Labour Law	8	5	3
Core Political	Principles of Taxation Law	8	5	3
Core History	Property Law & Easement	8	5	3
University Compulsory Course	Extra Curricular Activities(ECA)& Community Development Activities(CDA)	2	0	2
University Compulsory Course	WRL	1	1	
Professional Development Activities	Internship 4 Week	12		
Total Credits		51+ 12	31	20

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

Curriculum
LL.B Three Year
(III sem)

Nature of Course	Course Name	C	T	P
Core Law	**Law of Crime(Principles)**	**8**	5	3
Core Law	Hindu Law	8	5	3
Core Law	Instruction to Constitution	8	5	3
Core Law	Labour Law Specific	8	5	3
Core Law	Insurance Law	8	5	3
Core Law	Interpretation of Statutes and principles of Legislation	8	5	3
Core Law	Professional Ethics and Professional Accounting System	8	5	3
University Compulsory Course	Environment Studies & Disaster System	1	1	0
University Compulsory Course	Extra Curricular Activities(ECA)& Community Development Activities(CDA)	2	0	2
Total Credits		59	36	23

LL.B Three Year
(IV sem)

Nature of Course	Course Name	C	T	P
Core Law	Law of Crime(Specific)	8	5	3
Core Law	Muslim Law	8	5	3
Core Law	Basic of Indian Constitutional Law	8	5	3
Core Law	Drafting, Pleading and Conveyancing	8	5	3
Core Law	Criminology and Penology	8	5	3
Core Law	Administrative law	8	5	3
Core Law	Forensic Science & Law	8	5	3
University Compulsory Course	CDA & ECA	2	0	2
Professional Development Activities	Internship 4 Week	12		
Total Credits		58+ 12	35	23

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

Curriculum
LL.B Three Year
(V SEM)

Nature of Course	Course Name	C	T	P
Core Law	Introduction to Code of Civil Procedure & Limitation	8	5	3
Core Law	Introduction to Code of Criminal Procedure & Limitation	8	5	3
Core Law	Law of Evidence	8	5	3
Core Law	Health Care Law	8	5	3
Core Law	Alternative Dispute Resolution Laws and Legal Service Authority Act, 1987	8	5	3
Core Law	Rajasthan Land Law	8	5	3
Core Law	Banking Law	8	5	3
University Compulsory Course	CDA & ECA	2	0	2
University Optional Course	Professional Activities	-	-	-
Total Credits		58	35	23

LL.B Three Year
(VI SEM)

Nature of Course	Course Name	C	T	P
Core Law	Code of Civil Procedure & Limitation	8	5	3
Core Law	Code of Criminal Procedure & Limitation	8	5	3
Core Law	Public International Law	8	5	3
Core Law	Moot court exercise and internship	8	5	3
Core Law	Media and Law	8	5	3
Core Law	Private International Law	8	5	3
Core Law	French Legal System	8	5	3
Professional Development Activities	Internship 4 Week	12		
University Compulsory Course	CDA & ECA	2	0	2
Total Credits		58+ 12	35	23

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

LL.B. 1ST YEAR
I SEMESTER

Law of Contract

Credits8

Objective: The objective of this paper is to make students familiar with various principles of contract formation enunciated in the Indian Contract Act, 1872.

Unit–I:General Principles Meaning and nature of contract, Offer / Proposal- Definition, Communication, Revocation, General/ Specific offer, Invitation to treat, Acceptance- Definition, Communication, Revocation, Tenders / Auctions, Consideration- Definition, Essentials, Privity of contract, Capacity to enter into a contract- Minor's position, Nature or effect of minor's agreements

(2 Credit)

Unit–II: Validity of Contract- Free Consent, Coercion, undue influence, Misrepresentation, Fraud, Mistake, Unlawful consideration and object, Effect of void, voidable, valid, illegal, unlawful and uncertain agreements contracts, Discharge of Contracts, Performance- Time and Place of performance, Impossibility of performance and frustration, Breach – Anticipatory & Present

(2 Credit)

Unit-III: Remedies- Damages, Kinds, Remoteness of damages, Injunction, Specific performance, Quantum Merit, Quasi Contracts

(2 Credit)

Recommended Text Books:
1. S K Kapoor-Contract I, CLA
2. Myneni-Contract 1, Asia Law House.

Suggested Readings:
1. Anson's - Law of Contract
2. Bangia - Law of Contract and Specific Relief
3. Cheshire and Fifoot - Law of Contract

Recommendation for practical exposure:-

1. Facts and Analysis of Legal Principle on Contract (.5 D&T)
   2. One Moot Court on Validity of Contract. (.5 Credit)
   3. 10 Practice Session for topic of contract (1 Credit)

Law of Torts

Credits-8

Objective: This paper is to make students understand the nature of tort and conditions of liability with reference to established case law. Further, it covers the Consumer Protection Act, 1986.

Unit – I: Introduction and Principles of Liability in Tort- Definition of Tort, Development of Tort actions in England and India – Tort distinguished from contract, Quasi-contract and crime, Constituents of Tort – Wrongful Act, Damage and Remedy, Strict Liability and Absolute Liability, Vicarious Liability – Scope and Justification, Doctrine of Sovereign Immunity.

Justification in Tort- Volenti non-fit Injuria, Necessity, Plaintiff's default, Act of God, Inevitable accidents, Private defences, Judicial and Quasi – Judicial Acts, Parental and quasi-parental authority.

Specific Torts- Defamation, Negligence, Nuisance, Assault, battery and mayhem, False imprisonment and malicious prosecution, Nervous Shock,   (2 Credit)

Unit – II:Motor Vehicle Act –

Liability to pay compensation in certain cases on the principle of no fault, Special provisions as to compensation in case of hit and run motor accident, Refund in certain cases of compensation paid under section 161, Claims Tribunals, Application for compensation, Option regarding claims for compensation in certain cases, Award of the Claims Tribunal

(1.5 Credit)

Unit – III:Consumer Protection Act:

The Consumer Protection Act 1986Definition : Consumer- Complainant – Complaint – defect -deficiency – Consumer Dispute – Scope of Consumer Protection Act – Rights of Consumer Dispute Redressal Agencies : District Forum – State Commission – National Commission.   (1.5 Credit)

Recommended TextBooks:

1. Kapoor-Torts & Consumer Protection, CLA.
2. Shukla-Torts & Consumer Protection, CLA.
3. The Consumer protection Act 1986 Dehli Law House, Dehli.

Essential Case Law:
1. Bhim Singh v. State of J & K and Others (1985) 4 SCC 677
2. RudulSah v. State of Bihar (1983) 4 SCC 141
3. Rylands v. Fletcher 1868 LR HL 330
4. M.C. Mehta v. Union of India 1987 1 SCC 395
5. Union Carbide Corporation v. Union of India AIR 1989 SC 248
6. Donoghue v. Stevenson 1932 SC 31
7. State of Rajasthan v. Mst. Vidyawati& Others AIR 1962 SC 1039
8. M/s KasturilalRaliaRam Jain v. State of U.P. AIR 1965 SC 1039
9. Cassidy v. Daily Mirror Newspapers Ltd.
10. Bird v. Jones 1845 7 QB 742
11. Lucknow Development Authority v. M.K.Gupta, (19494) ISCC 243.
12. A.C. Modagi v. cCrosswell Tailor, (1991) II CPJ 586
13. Indian Medical Assn. v. V.P. Shantha (1995) 6 SCC 651

Recommendation for practical exposure:-
1. Facts and Analysis of Legal Principle on Law of Torts (0.5 D&T)
2. One Leading Case- Study and Analysis of Law of Torts. (1.5 Credit)
3. 10 Practice Session for topic of tort (1 Credit)

Computer Fundamentals

Credits: 4

Objective: This course offers a good understanding of basics of Information Technology.

UNIT I

- Introduction to Computers: Classification, Components of Computer System, Introduction to High level and low level languages.
- Software: Application Software and System Software, Applications Basic concepts of operating systems, Flow charts and data flow diagrams.
- Networking concepts, Internet and intranet, sending and reading e-mails.
- Practical on Internet using emails, Use of search engines

(Credits: 2)

UNIT II

- End User computing using MS-Office: Word processing: MS-Word, formatting text and documents, working with header and footer, tables and sorting, graphics and mail merge.
- MS Excel basics, Rearranging, Worksheets, Excel formatting techniques, using formulas and functions, chart features and working with graphics in Excel
- Power Point: Basics, working with texts and graphics in Power Point,
- Creating and delivering presentations
- Computer Security: Introduction, Malicious programs, cryptography, digital signature, firewall,
- Users Identification and Authentication, Security Awareness Issues

(Credits: 2)

Recommended Text Book:
- Computer Application in Management :NirupmaPathak, Himalaya Publishing House.

Suggested Readings:
- Leon & Leon : Internet for Everyone Leon Tech World
- Curtin, Foley, Sen& Martin : Information Technology Tata McGraw Hill
- Rajaraman, V: Fundamentals Of Computers: PHI
- AakashSaxena, Sunil Chauhan, Kratika Gupta: Fundamentals of Computer: Laxmi**.**P. K. Sinha: Fundamental of Computers: BPB

   Recommendation for practical exposure:-

- **Twenty Hours Creation of Word, Excel and Power point   (Credits 1)**
- **Twenty Hours Practice on Networking   (Credits 1)**

GENERAL ENGLISH

(Credit: 4)

Objective: To enable students to develop Four major skills Reading, Writing, Speaking and Listening in relevance to English culture according to time and venue.

Unit- 1

Language and Grammar:

Defining Language, Nature of Language; Linguistic Competence (Introductory); Grammar and Usage - Sentence Structure- Subject and Predicate; Concord; Tenses; Use of Articles; Accurate Use of Prepositions; Making Questions (Why- and yes-no questions and question tags); Use of Auxiliary Verbs (making requests, suggestions, seeking permission etc.); Some Common Errors

(Credit: 2)

Unit-2

Communication Skills:

Communication - Verbal, Non-verbal and Written; Significance of Communication Skills for Lawyers- Listening, Speaking, Reading and Writing (Introductory); Electronic Communicationand its Types (Telephone, Facsimile, E-mail, Voicemail, Teleconferencing, Video-conferencing, Word processor, Internet, Social Media); Formal Correspondence; ResumeWriting, Difference between Bio-data, Resume and Curriculum-Vitae.

(Credit: 2)

Recommended Books:

- Phonetics by Peter Roach, Oxford University Press 2004.
- Better English Pronunciation by J.D.O'Connor, OUP 2010.
- Accents of English by J.C.Wells, Cambridge University Press.
- English Grammar Today with CD: An A-Z of Spoken and Written
- Grammar by Ronald Carter, Michael Mac Carthy, Geraldine Mark
- Anne O'Keeffe, Cambridge University Press, 2009.
- Alred, Gerald J. . The Business Writers Handbook. 9th ed. Boston:Bedford/St. Martins, 2009.
- GeetaJajivan, Kiranmai: Course Listening and Speaking Skills part 1. Foundation Books Pvt Ltd.
- Lorven: Enrich Your Communication in English

Human Rights Law

Credits-8

Objective: The objective of this course is to lay the foundation of the Human Rights law and acquaint the students with basic human rights institutions.

Unit – I: Introduction- History, Evolution and Growth, Group Rights- Prisoners, Women and Children, Indigenous People and Disabled

(2 Credit)

Unit – II: UN Charter and Human Rights- UDHR, Covenants of 1966 and Optional Protocols

(1.5 Credit)

Unit – III: Human Rights under the Indian Constitution and their Enforcement- Fundamental Rights, Directive Principles of State Policy. Role of Judiciary- NHRC, NGO'S

(1.5 Credit)

Recommended Text Books

1. Kataria- Commentary on Human Rights, Orient
2. Kapoor, S K - Human Rights, CLA.

Suggested Readings:

1. D.D. Basu – Human Rights
2. UpenderBaxi – Human Rights
3. Thomas Buergenthal – Human Rights
4. Henry Steiner & Philip Alston – International Human Rights Law
5. B.G. Ramcharan – International Human Rights (Oxford, 1998)
6. Y.K. Tyagi – British Yearbook (2001).

   Recommendation for practical exposure:-

1. Facts and Analysis of Legal Principle on Human Right Law (0.5)
2. One Latest Cases- Study and Analysis on Human Rights Law.(1.5 Credit)
3. 10 Practice Session for Human Rights Law (1 Credit)

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Right to Information Law

Credits-8

Objective: The students understand the right to Information Law.

Unit-I: Democracy and Right to Information: Transparency of information in public administration, Provisions of the Constitution of India and Right to information, corruption and right to information, Revelation of information in conflict with public interest. Constitutional validity of the Right to information Act, 2005: objects and reasons of the act, The Public Records Act,1993, Historical back ground of the movement for the Right to Information Act, 2005, Special features of the Right to Information Act, 2005, Preamble of the Act.

(2 Credit)

Unit II: Definitions, Right to Information, Obligations of the public authority, Designation of Public Information Officers, Request for obtaining information under the Act, Disposal of request for obtaining information by Public Information Officers, Exemption from disclosure of information, Grounds for rejection to assess in certain cases, Sever ability of information, Third party Information.

(1.5 Credit)

Unit III: Constitution of Central Information Commission, Term of office and conditions of service, Power and Functions of Central Information Commission, The Right to Information (Regulation of fee and cost) Rules, 2005, Constitution of State Information Commission, Term of office and conditions of service, Power and Functions of State Information Commission, The Central Information Commission (Appeal Procedure) Rule, 2005.

Recommended Text Books   (1.5 Credit)

1. Prof. S.R. Bhansali: Right to Information Act 2005
2. Justice N.N.Mathur: Exhaustive Commentary on Right to Information
3. Dewan: Exhaustive Commentary on Right to Information
4. S.K.Sinha Ray: Right to Information Act 2005
5. Dr. Madhushi Sridhar: RTI Law and Practice

Recommendation for practical exposure:-

1. Facts and Analysis of Legal Principle on Right to Information Law (0.5)
2. One Leading Case- Study and Analysis onRight to Information Law. (1.5 Credit)
3. 10 Practice Session for topic of contract (1 Credit)

Intellectual Property Rights

Credits-8

Objective: The objective of this course is to acquaint the students with basics of intellectual property rights with special reference to Indian law and practice

Unit – I: Copyright- Nature and Meaning, Scope of protection, Procedure for protection, Enforcement and Remedies. Patents-Nature and Meaning, Scope of protection, Procedure for protection, Enforcement and Remedies
(1.5 Credit)

Unit – II: Trademarks- Nature and Meaning, Scope of protection, Procedure for protection, Enforcement and Remedies
(1.5 Credit)

Unit – III: Designs- Nature and Meaning, Scope of protection, Procedure for protection, Enforcement and Remedies
(2 Credit)
: Recommended Text Books

1. Paris Convention for the Protection of Industrial Property, 1883;
2. Berne Convention for the Protection of Literary and Artistic Works, 1886;
3. Indian Copyright Act, 1957;
4. Indian Patents Act, 1970;
5. Agreement on Trade-Related Aspects of Intellectual Property Rights, 1994 (the TRIPS Agreement);
6. Indian Trademarks Act, 1999;
7. Indian Designs Act, 2000
8. R.K.Nagarajan-Intellectual Property Law.

Suggested Readings:

1. R.K.Nagarajan-Intellectual Property Law.
2 Dr. G.B. Reddy's-Intellectual Property Rights and the Law.
3. P. Narayanan-Intellectual Property Law.

Recommendation for practical exposure:-

1. Facts and Analysis of Legal Principle on intellectual property rights (0.5)
2. Latest Cases- Study and Analysis on Trademarks and Design. (1.5 Credit)
3. 10 Practice Session for topic of contract (1 Credit)

Jurisprudence

Credits-8

Objective: The objective of the course is to create an understanding of basic legal concepts like state, sovereignty, rights, possession, ownership, liability, which are basic to the study of law

Unit-I: State, Sovereignty and Law- Nature and functions of a State and its relationship with law, Nature and development of Sovereignty, Nature and kinds of law and theories of justice, Schools of Law.
                                  (1.5 Credit)

Unit-II: Sources of Law- Custom, Precedent & Legislation (Emphasis on Indian perspective). Concepts of Law- Rights and Duties, Personality, Possession, Ownership and Property
                                  (2 Credit)

Unit – III: Principles of Liability- Liability and Negligence, Absolute Liability, Immunity
                                  (1.5 Credit)

Recommended Text Books

1. Salmond's Jurisprudence
2. R.W.D. Dias, Jurisprudence
3. Prof.(Mrs.) NomitaAggarwal, Jurisprudence (Legal Theory)

Recommendation for practical exposure:-

1. Facts and Analysis of Legal Principle on Juriprudence (1)
2. OneLeading Cases- Study and Analysis on Jurisprudence. (1 Credit)
3. 10 Practice Session for topic of Jurisprudence (1 Credit)

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

II SEMESTER

Special Contract

Credits-8

Objective: This paper is to impart knowledge various special contract, law of agency and partnership and specific reliefs

Unit – I:

Indemnity and Guarantee- Meaning, Distinction between Indemnity and Guarantee, Right / Duties of Indemnifier, Indemnified and Surety, Discharge of Surety, Kinds of Guarantee, Bailment and Pledge- Meaning and Distinction, Rights and Duties of Bailor/Bailee, Pawnor/Pawnee, Lien, Termination of Bailment

(1 Credit)

Unit – II:

Agency- Definitions of Agent and Principal, Essentials of relationship of agency, Creation of agency: by agreement, ratification and law, Relation of principal / agent, subagent and substituted agent, Termination of agency, Specific Relief Act, 1963- Recovery of property, Specific performance of contracts, Injunctions – Temporary, Perpetual and Mandatory

(2 Credit)

Unit – III:

The Indian Partnership Act, 1932- Nature of partnership firm, Relations of partners to one another and outsiders- Rights /Duties of partners inter se, Partnership Property, Relations of Partners to third parties, Liability for holding out, Minor as a partner, Incoming and outgoing partners, Dissolution- By consent, By agreement, compulsory dissolution, contingent dissolution, By notice, By Court, Consequences of dissolution, Registration of firms and effects of non registration

(1 Credit)

Recommended Books:

1. S K Kapoor-Contract II, CLA
2. Myneni-Contract 2, Asia Law House.

Suggested Readings:

1. Pullock&Mulla, Indian Contract and Specific Relief Acts
2. Avtar Singh - Law of Partnership
3. K. Sukumaran, Pollock & Mulls - The Indian Partnership Act

Recommendation for practical exposure:-
1. Two Moot Court on Indemnity and Guarantee and Partnership. (2 Credit)
2. One Leading Case- Study and Analysis on Agency. (1 Credit)

Company Law

Credits-8

Objective: The paper aims to provide insight into formation and winding up of companies besides Corporate Administration.

Unit-I:

Formation, Registration and Incorporation of company- Nature and kinds of company, Promoters: Position, duties and liabilities, Mode and consequences of incorporation, Uses and abuses of the corporate form, lifting of corporate veil, Memorandum of Association, alteration and the doctrine of ultra vires, Articles of association, binding nature, alteration, relation with memorandum of association, doctrine of constructive notice and indoor management-exceptions

(1.5 Credit)

Unit-II:

Capital Formation- Prospectus: Issues, contents, Kinds, liability for misstatements, statement in lieu of prospectus, The nature and classification of company securities, Shares and general principles of allotment, Statutory share certificate, its objects and effects, Transfer of shares, Share capital, reduction of share capital, Duties of court to protect interests of creditors and shareholders, Debentures, kinds, remedies of debenture holders

(1.5 Credit)

Unit – III:

Corporate Administration- Directors – kinds, powers and duties, Insider trading, Meetings kinds and procedure, The balance of powers within companies - Majority control and minority protection, Prevention of oppression, and powers of court and central government, Emerging trends in Corporate social responsibility, legal liability of company - civil, criminal, tortuous and environmental, Winding up of Companies- Kinds, consequences and reasons of winding up, Role of the court, Liability of past members, Payment of liabilities, Reconstruction and amalgamation.

(2 Credit)

Recommended Books:

1. Baxi& Prasad- Corporate Social Responsibility, oxford.
2. Anantharaman- Lectures on Company Law & Competition Act, Lexix&Nexix.

Suggested Readings:

1. Palmer - Company Law
2. Ramiaya: Guide to Companies Act
3. Gower: Principles of Modern Company Law

Recommendation for practical exposure:-

1. One Moot Court on Registration of Company. (1 Credit)
2. Two Leading Case and Group Discesstion- Study and Analysis on Capital Formation and Corporate Administration.(2 Credit)

English and Legal Language

Credits-8

Objective: The Objective of this course is to develop a student capability to write and speak in English correctly

Unit- 1

Language and Grammar:

Defining Language, Nature of Language; Linguistic Competence (Introductory); Grammar and Usage - Sentence Structure- Subject and Predicate; Concord; Tenses; Use of Articles; Accurate Use of Prepositions; Making Questions (Why- and yes-no questions and question tags); Use of Auxiliary Verbs (making requests, suggestions, seeking permission etc.); Some Common Errors

(Credit: 2.5)

Unit-2

Communication Skills:

Communication - Verbal, Non-verbal and Written; Significance of Communication Skills for Lawyers- Listening, Speaking, Reading and Writing (Introductory); Electronic Communication and its Types (Telephone, Facsimile, E-mail, Voicemail, Teleconferencing, Video- conferencing, Word processor, Internet, Social Media); Formal Correspondence; Resume Writing, Difference between Bio-data, Resume and Curriculum-Vitae.

(Credit: 2.5)

Recommended Books:

1. English – I – Dr. T Padma, Alt Pub.
2. English – II – Dr. T Padma, Alt Pub.
3. Legal Language, Writing- R L Jain, CLA.

Suggested Readings:

1. Legal Language, Writing and General English – J.S. Singh

Recommendation for practical exposure:-

1. Practice on Grammar and Usage, Comprehension and Composition and Translation. (3 Credit)

Principles of Labour Law

Credits-8

Objective This paper focuses on various aspect of management of labour relation and dispute settlement bodies and techniques.

Unit – I: Trade Unions and Collective Bargaining -Trade Unionism in India, Definition of trade union and trade dispute , Registration of trade unions i) Legal status of registered trade union ii) Mode of registration iii) Powers and duties of Registrar iv) Cancellation and dissolution of trade unionv) Procedure for change of name vi) Amalgamation and dissolution of trade union , Disqualifications of office-bearers, Right and duties of office-bearers and members ,General and Political funds of trade union , Civil and Criminal Immunities of Registered trade unions , Recognition of trade union , Collective bargaining.

(2 Credit)

Unit – II: Standing Orders-Concept and nature of standing orders, Scope and coverage of the Industrial Employment (Standing Orders) Act, 1946,Certification processi) procedure for certificationii) appeals against certificationiii) Condition for certificationiv) Date of operation of standing orders v) Building nature and effect of certified standing ordersvi) Posting of standing orders , Modification and temporary application of model Standing Orders , Interpretation and enforcement of Standing Orders, Penalties and procedure.

(1 Credit)

Unit – III: Resolution of Industrial Dispute- Industrial dispute and individual dispute, Arena of interaction and Participants– Industry, workman and employer ,
Settlement of industrial dispute i) Works Committee ii) Conciliation Machinery
iii) Court of Enquiry iv) Voluntary Arbitration v) Adjudication – Labour Court, Tribunal and National Tribunal , Powers of the appropriate Government under the Industrial Disputes Act, 1947 , Unfair Labour Practice , Instruments of Economic Coercion- Concept of strike i. Gheraoii.Bandh and Lock-out iii. Types of strike iv. Rights to strike and Lock-outv. General Prohibition of strikes and lock-outs vi. Prohibition of strikes and lock-outs in public utility services vii. Illegal strikes and lock-outs viii. Justification of strikes and lock-pouts ix. Penalties for illegal strikes and Lock-outs x. Wages for strikes and lock-outs , Lay-off i. Retrenchment

ii. Transfer and closure – Definition of lay-off and retrenchment compensation iii. Compensation to workmen in case of transfer of undertaking closure iv. Closure - Prevention and regulation v. Conditions – precedent for retrenchment vi. Special provisions relating to lay-off, retrenchment and closure in certain establishmentsvii. Procedure for retrenchment and re-employment of retrenched workmen and penalty, Disciplinary action and domestic enquiry, Management's prerogative during the pendency of proceedings , Notice of change.

(1 Credit)

Recommended Books:

1. Statutory Material - Trade Union Act, 1926, InduatrialEmplopyment (Standing Orders) Act, 1946 and Industrial Dispute Act, 1947
2. S.C. Srivastava, Industrial Relations and Labour Law, Vikas Publishing House, New Delhi

Suggested Readings:

1. O.P. Malhotra, Industrial Disputes Act, Vol. I & II
2. Indian Law Institute – Cases and Materials on Labour Law and Labour Relations

   Recommendation for practical exposure:-
   1. One Moot Court on LabourLaw. (1 Credit)
   2. Three Leading Case- Study and Analysis onLabour Law. (2 Credit)

Principles of Taxation Law

Credits-8

Objective: Concept of income tax, heads of income, including foreign income assessment procedures, adjudication and settlement of tax disputes are the focus points of study in this paper.

Unit – I: Introduction - Definitions , Basis of Income- Charge of Income Tax, Scope of total Income , Residential status of an assessee , Dividend Income , Income deemed to accrue or arise in India , Foreign income and its taxability.

(2 Credit)

Unit – II: Incomes which do not form part of total Income- Incomes not included in total income, Special provision in respect of newly established industrial undertaking in free trade zones, Special provision in respect of newly established hundred per cent export- oriented undertaking, Income from property held for charitable or religious purpose, Income of trusts or institutions from contributions
, Conditions as to registration of trusts, etc. Section 11 not to apply in certain cases , Special provision relating to incomes of political parties.

(2 Credit)

Unit – III: Heads of Income- Salaries , Income from house property , Profits and gains of business or profession , Capital gains , Income from other sources , Tax Authorities- Powers , Procedure for Adjudication and Settlement.

(1 Credit)

Recommended Books:

1. Dinesh Ahuja and Ravi Gupta, Systematic approach to Income Tax, (Latest Edition)
2. Singhania, Student Guide to Income Tax, Taxmann (Latest Edition).

Suggested Readings:
1. N.A. Palkwllah's Income Tax Act (Two Volume)
2. Iyer's Income Tax Act
3. Chaturvedi's Direct Tax Act (Three Volume)

Recommendation for practical exposure:-
1. Three Leading Cases- Study and Analysis on Tax Law . (3 Credit)

Property Law and Easement

Credits-8

Objective: The Objective of this paper is to focus on concept and classification of property as well as principles governing transfer of immovable property.

Unit-I: Concept of property – distinction between movable and immovable property, Transferability of property, Compartment transfer, Conditions restricting transfer, Definition of transfer of property, Transfer and non-transfer property, Transfer to an unborn person and rule against perpetuity, Vested and Contingent interest, Rule of Election

(3 Credit)

Unit-II: General Principles Governing Transfer of Immoveable Property- Transfer by ostensible owner, Rule of feeding grant by estoppels, Rule of Lispendens, Fraudulent transfer, Rule of part performance, Specific Transfers – I: Sale and gift, Mortgage and charge, Specific Transfer – II: Lease and License,

(1 Credit)

Unit-III: Easements: Essentials of Easements, Imposition Acquisition, Incidents, Disturbance, Extinction, Suspension and Revival of Easement, Licence. Difference between lease and licence.

(1 Credit)

Recommended Books:

1. Mulla D.F. – Transfer of property
2. H.N. Tiwari – Transfer of property Act
3. Joshi: The Indian Easements Act (Act V of 1882)

Recommendation for practical exposure:-

1. One Moot Court on Transfer of immovable property. (1 Credit)
2. Two Leading Cases- Study and Analysis on Property Law and Easement (2 Credit).

Environmental Law

Credits-8

Objective: The objective of this paper is to acquaint the students with the environmental issues and the measures taken for its protection alongwith the norms prevailing at international and national level.

UNIT– I: Environmental Law: International and National Perspective- Introduction i. Environment – Meaning ii. Environment Pollution – Meaning and Issues , International Norms i. Sustainable Development – Meaning and Scope ii. Precautionary Principle iii. Polluter pays Principle iv. Public Trust Doctrine , Constitutional Guidelines i. Right to Wholesome Environment – Evolution and Application ii.Relevant Provisions – Art. 14, 19 (1) (g), 21, 48-A, 51-A(g) iii. Environment Protection through Public Interest Litigation , Other Laws i. Law of Torts , ii. Law of Crimes , iii. Environmental Legislations.

(2 Credit)

UNIT – II: Prevention and Control of Water and Air Pollution- The Water (Prevention and Control of Pollution) Act, 1974 i. Water Pollution - Definition
ii. Central and State Pollution Control Boards – Constitution, Powers and Functions iii. Water Pollution Control Areas iv. Sample of effluents – Procedure; Restraint order v. Consent requirement – Procedure, Grant/Refusal, Withdrawal vi. Citizen Suit Provision , Air (Prevention and Control of Pollution) Act, 1981 i. Air Pollution – Definition ii. Central and State Pollution Control Boards – Constitution, Powers and functions iii. Air Pollution Control Areas iv. Consent Requirement – Procedure, Grant/Refusal, Withdrawal v. Sample of effluents – Procedure; Restraint order vi. Citizen Suit Provision

(1.5Credit)

UNIT – III: Protection of Forests and Wild Life- Indian Forest Act, 1927 i. Kinds of forest – Private, Reserved, Protected and Village Forests , ii. The Forest (Conservation) Act, 1980 , The Wild Life (Protection) Act, 1972- i. Authorities to be appointed and constituted under the Act , ii. Hunting of Wild Animals , iii. Protection of Specified Plants , iv. Protected Area , v. Trade or Commerce in wild animals, animal articles and trophies; Its prohibition , General Environmental Legislations- i. Meaning of 'Environment', 'Environment Pollutant', 'Environment Pollution' ii. Powers and Functions of Central Govt iii. Citizen Suit Provision ,
Principle of 'No fault' and 'Absolute Liability' i. Public Liability Insurance Act, 1991 ii. The National Environment Tribunal Act, 1995 , The National Appellate Environmental Authority Act, 1997 i.   Constitution, powers and functions

(1.5Credit)

Recommended Books:

1. Environmental Law & Policy in India – ShyamDiwan, Armin Rosencranz
2. Environmental Law in India – P. Leelakrishnan

Statutes

1. The Water (Prevention and Control of Pollution) Act, 1974
2. The Air (Prevention and Control of Pollution) Act, 1981
3. The Indian Forest Act, 1927
4. The Forest (Conservation) Act, 1980
5. The Wild Life Protection Act, 1972
6. The Environment (Protection) Act, 1986
7. The Public Liability Insurance Act, 1991
8. The National Environment Tribunal Act, 1995
9. The National Environment Appellate Authority Act, 1997

Suggested Readings:

1. Environmental Law in India – Gurdip Singh
2. Environmental Administration, Law and Judicial Attitude – ParasDiwan, PeeyushiDiwan

Essential Case Law:

1. Subhash Kumar v. State of Bihar, AIR 1991 SC 420
2. M.C. Mehta v. Union of India, AIR 1997 SC 734
3. M.C. Mehta v. Kamal Nath, AIR 2000 SC 1997
4. M/s Abhilash Textiles v. Rajkot Municipal Corprn., AIR 1988 Guj. 57
5. Indian Council for Enviro-Legal Action v. Union of India, AIR 1996 SC 1446
6. Vellore Citizen Welfare Forum v. Union of India, AIR 1996 SC 2715
7. A.P. Pollution Control Board v. M.V. Nayudu, AIR 1999 SC 812
8. Narmada BachaoAndolen v. Union of India, AIR 2000 SC 3751
9. M.C. Mehta v. Union of India, AIR 2002 SC 1696
10. M.C. Mehta v. Union of India, AIR 1988 SC 1037
11. M.c. Mehta v. Union of India, AIR 1988 SC 1115
12. M/S. Delhi Bottling Co. Pvt. Ltd. v. Central Board for the Prevention and Control of Water Pollution, AIR 1986 Del. 152
13. Tata Tea Ltd. v. State of Kerala, 1984 K.L.T. 645
14. M.C. Mehta v. Union of India, AIR 2001 SC 1948
15. M.C. Mehta v. Union of India, 1998 (4) SCALE 196
16. Orissa State Pollution Control Board v. M/s. Orient paper Mills, AIR 2003 SC 1966
17. Tarun Bharat Singh v. Union of India (1994) 2 SCALE 68
18. T.N. GodavarmanThirumulkpad v. Union of India, AIR 1998 SC 769
19. Vellore Citizens Welfare Forum v. Union of India, AIR 1996 SC 2715
20. S. Jagannath v. Union of India, AIR 1997 SC 811
21. M.C. Mehta v. Union of India, AIR 2002 SC 1696
22. M.C. Mehta v. Union of India, AIR 1987 SC 965
23. M.C. Mehta v. Union of India, AIR 1987 SC 982
24. M.C. Mehta v. Union of India, AIR 1987 SC 1086
25. M.C. Mehta v. Union of India, (Relocation of Industries in Delhi), AIR 1996 SC 2231
26. A.P. Pollution Control Board v. M.V. Nayudu, AIR 1999 SC 812

Recommendation for practical exposure:-

1.   Three Leading Cases- Study and Analysis on Environmental Law . (3 Credit)

Women Rights and Law

Credits-1

Objective: The paper aims at creating awareness as to importance and role of women in society through the medium of law. It also focuses on women welfare laws.

Unit – I:Meaning of law ,Constitutional Safeguards for Women, Right to Equality (Art-14),Life & Personal Liberty, Right to Education (Art-21,21-A), Right against Sexual Exploitation (Art-23,24), Constitutional Remedies (Writs- Art-32-35), Participation in Panchayat and Municipalities, Marriage : Conditions,Ceremonies,Registration, Restitution of Conjugal Rights, Judicial Separation, Void & Voidable Marriages, Legitimacy of Children of Void & Voidable Marriages, Punishment of Bigamy, Divorce Common Grounds for Divorce, No Petition for divorce within 1year of marriage, Divorced Person when may marry again,Maintenance: Wife, widowed daughter-in-law, Children, Amount of Maintenance , Interim Maintenance, Maintenance Provisions under Cr.PC, Adoption: Requisites of a valid adoption,Capacity of a male Hindu to take in adoption, Capacity of a female Hindu to take in adoption, Persons capable of giving in adoption, Persons who may be adopted, Effects of Adoption,.

(.5 Credit)

Unit – II:Indian Penal Code, 1860 Right of Private Defence, Dowry Death, Abetment of Suicide, Cruelty by Husband or Relatives of Husband, Sex Selection & Causing Miscarriage, Hurt & Grievous Hurt, Wrongful Restraint & Confinement, Outraging the modesty of a woman, Kidnapping and Abduction, Offences regarding Prostitution, Rape, Bigamy, Adultery, Domestic Violence, Sex Determination Test -The Medical Termination of Pregnancy Act, 1971, The Pre-Conception and Pre-Natal Diagnostic Techniques Act, 1994, Reproductive Technologies: Meaning, Concept & Challenges of A.I, IVF & Surrogacy, Right of HIV/ AIDS Victims, Introduction to Consumer Protection Act , Tenancy Act, Right to Information Act, Motor Vehicles Act, Intellectual Property Rights, Act & Rules Maternity Benefits Act 1961.

(.5 Credit)

Recommended Books:

1. Law relating to Women – S.R.Myneni
2. Law relating to Women – Dr. S.C. Tripathi

Suggested Readings:

1. Women and Law – Prof. NomitaAggarwal
2. Women and Law – Dr. ManjulaBatra
3. Women and Law – G.P. Reddy

Internship

Credits-12

Each student shall undergo Internship of minimum 80 Hours during the vacations after Second semester either with an Advocate, corporate, a law firm ,NGO as per BCI directions and submit at least two copies of the Internship Report to the Dean of the Institution within two weeks of the commencement of the Third Semester. It shall be evaluated by a Board of Members consisting of
(i)   Dean of the Institute
(ii)   Two faculty members and an invitee from outside University/Institute.

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

LL.B. 2nd YEAR
III SEMESTER

Law of Crimes (Principles)

Credits-8

Objective: This paper is to deal with the basic principles of criminal law determining criminal liability and punishment.

Unit – I: Introduction to Substantive Criminal Law- Extent and operation of the Indian Penal Code, Definition of Crime, Fundamental elements of crime, Stages in commission of a crime, Intention, Preparation, Attempt

(2 Credit)

Unit – II: General Explanations and Exceptions- Definitions, Constructive joint liability, Mistake, Judicial and Executive acts, Accident, Necessity, Infancy, Insanity, Intoxication, Consent, Good faith, Private defence

(2 Credit)

Unit – III: Abetment and Criminal Conspiracy, Theories of Punishment: Deterrent, Retributive, Preventive, Expiatory and Reformative Theory, Punishment under the IPC: Fine, Imprisonment, Capital Punishment

Recommended Text Books (1 Credit)

1. S.N. Shukla , IPC

Suggested Readings:

1. Myneni- Criminal Law 1, Asia Law House.
2. RatanLal and DhirajLal, CLA

   Recommendation for practical exposure:
4. Facts and Analysis of Legal Principle on I.P.C (0.5)
5. One Leading Cases- Study and Analysis on I.P.C(1.5 Credit)
6. 10 Practice Session for topic of contract (1 Credit)

Hindu Law

Credits-8

Objective: The objective of the paper is to apprise the students with the laws relating to family matters applicable to different communities in India.

Unit-I: Hindu Law: Sources, schools and application, coparcenary, Joint family property and Self-acquired property; Karta and his powers and obligation, Religious and Charitable endowments-Essentials of an endowment, kinds, shebait and mahant. The Hindu Marriage Act,1995: conditions of a hindu marriage, its ceremonies and registration, void and voidable marriage: divorce, divorce by mutual consent, one year bar to divorce, divorce persons when may marry again: jurisdiction and procedure

(2 Credit)

Unit-II: The Hindu Succession Act,1956: Succession to the property of a Hindu male: Succession to interest in coparcenary property, property of a Hindu female, succession to the property of a Hindu female; general rules and disqualifications of succession, escheat. The Hindu Adoption and Maintenance Act, 1956: Requisites of a valid adoption; capacity to take in adoption, capacity to give in adoption, effects of adoption: Miscellaneous provisions of adoption; Maintenance of Wife, children and parents; Maintenance of widowed daughter-in-law; Dependants and their maintenance; amount of maintenance.

(2 Credit)

Unit-III: The Hindu Minority and Guardianship Act, 1956: Natural Guardians and their powers; Testamentary guardian and their powers, de facto guardian, general provisions of guardianship. Partition: Meaning, Property for partition, person entitled to sue for partition and allotment of shares, partition and allotment of shares how effected, Determination of shares, re-opening of partition, reunion, Debts- Doctrine of pious obligation: Anticedent Debts.

(2 Credit)

Recommended Text Books
1. Kusum- Family Law-I, Lnbw.
2. ParasDiwan-Hindu Law, Ala.

Essential Case Laws:
1. ShastriYajnaPurusdasji v Muldas, AIR1966SC1119
2. Hanooman Prasad v MussamatBabooesMunrajKoonware, (1856)6MIA 395
3. Brij Narayan v Mangla Prasad(1924)511A129
4. Bipin Chandra v Prabhavati AIR(1957) SC 176
5. Dr Narayan Ganesh Dastane v SuchetaDastane AIR (1975) SC 1534
6. Dharmendrakumar v Usha Kumar, AIR (19977)SC 2218
7. Tulsamma v SeshaReddi AIR (1977) SC 1944

Recommendation for practical exposure:-
1. Facts and Analysis of Legal Principle on Hindu law (0.5)
2 One Leading Cases- Study and Analysis on Hindu law(1.5 Credit)
3. 10 Practice Session for topic of contract (1 Credit)

Introduction to Constitution

Credits-8

Objective: The Objective of this paper is to provide understanding of basic concepts of Indian Constitution and various organs created by the constitution including their functions.

Unit-I: Constitution., Sources of Constitution, Constitutional Conventions, Salient features of Indian Constitution, Rule of Law, Separation of powers, Distribution of Powers between Center and States- Legislative Powers, Administrative Powers, Financial powers. Relevant Doctrines: Territorial Nexus, Harmonious Construction, Pith and Substance, Repugnancy

(1.5 Credit)

Unit-II: Constitutional Organs- Parliament, Parliamentary Sovereignty, Parliamentary Privileges, Anti Defection Law, Executive Power, Collective Responsibility of Cabinet, Judiciary - Jurisdiction of Supreme Court and High Courts, Independence of Judiciary, Public Interest Litigation, Power of Judicial Review, Doctrine of Political Question

(1.5 Credit)

Unit-III: Emergency Provisions, Amendment of Constitution, Doctrine of Basic Structure

(1 Credit)

Recommended Text Books

1. Pandey, J N- Constitutional Law Of India, CLA.
2. Sharma, Brij Kishore- Introduction to Constitution of India, PHI.

    Recommendation for practical exposure:-

 1. Facts and Analysis of Legal Principle on **Introduction to Constitution** (1.5)
 2 One Leading Cases- Study and Analysis on **Introduction to Constitution** (1.5 Credit)
 3. 10 Practice Session for topic of contract (1 Credit)

Labour Law Specific

Credits-8

Objective: The paper is to focus on wage policies, compensation for learn caused during the course of employment and working conditions of employees.

Unit – I:

Minimum Wages Act,1948 - Concept of minimum wage, fair wage, living wage and need based minimum wage , Constitutional validity of the Minimum wages Act, 1948 , Procedure for fixation and revision of minimum wages , Fixation of minimum rates of wage by time rate or by piece rate , Procedure for hearing and deciding claims.

(1.5 Credit)

Unit-II:

Payment of Wages Act, 1936 - Object, scope and application of the Act , Definition of wage , Responsibility for payment of wages , Fixation of wage period , Time of payment of wage , Deductions which may be made from wages , Maximum amount of deduction , Factories Act, 1948- Concept of "factory", "manufacturing process" "worker" and "occupier" , General duties of occupier , Measures to be taken in factories for health, safety and welfare of workers , Working hours of adults , Employment of young person and children , Annual leave with wages , Additional provisions regulating employment of women in factory.   (1.5 Credit)

Unit –III:

Workmen's Compensation Act, 1923- Definition of dependant, workman, partial disablement and total disablement , Employer's liability for compensation – (Scope of arising out of and in the course of employment),(Doctrine of notional extension),(When employer is not liable) , Employer's Liability when contract or is engaged , Amount of compensation , Distribution of Compensation , Procedure in proceedings before Commissioner , Appeals

Recommended Text Books   (2 Credit)

1. S.C.Srivastava, Commentaries on factories Act, 1948, Universal Law Publishing House, Delhi
2. H.L. Kumar, Workmen's Compensation Act, 1923

Recommendation for practical exposure:-

1. Facts and Analysis of Legal Principle on**Labour Law Specific   (0.5Credits)**
2 One Leading Cases- Study and Analysis on**Labour Law Specific (1.5 Credits)**
3. 10 Practice Session for topic of contract (1 Credit)

Insurance Law

Credits-8

Objectives: The objective of the course is to familiarize students with Insurance Law.

Unit I: Evolution and development of the concept of insurance, role and importance of insurance, General principles of the contract of insurance, nature of contract of insurance, Classification of policies, selection and measurement of risk, treatment of sub-standard risk, calculation of premium, Licencing of insurance agents, duties and powers of controller of insurance under The Insurance Act, 1938, Status and legal position of the nominee under The Insurance Act, 1938.

(2 Credit)

Unit II: Establishment of Life Insurance Corporation of India, Investment provisions and rights of the policy holders under The Life Insurance Corporation Act, 1956; Marine Insurance and Fire Insurance, Motor Insurance, Live-stock insurance against deterioration of stocks, loss o profit insurance, Contractor's All Risk Insurance and Credit Guarantee.

(1 Credit)

Unit III: Public Liability Insurance Act, 1992, Definitions, Criminal liability based on no fault. Verification and publication of accidents by Collector, Application for claim for Relief-Environmental Relief Fund-Claim of Compensation under other laws, Powers of the Central Government or its authorized officers under the Act-Penalties-Liability of Companies or Government Departments.

(2 Credit)

Leading Cases
1. New India Assurance Co. v. RadheyShyamMotilalKhandelwal, AIR 1974 Bom. 228
2. Prudential Insurance Co. v. Inland Revenue Commissioners, (1904) 2 KB 658
3. Mills v. Smith (1963) 2 All. ER 1078
4. Digby v. General Accident (1943) AC 121, 138
5. Glickman v. Lancashire and general Assurance Co. Ltd. (1978) ACT 139 (HL)

Recommended Text Books

1.Mishra M.N. - Insurance, Principles and Practices

Suggested Readings
1 Rao, C.K. - Treaties on the Law of Insurance
2. The Insurance Act, 1938
3 The Life Insurance Corporation Act, 1957
4 Karkara, G.S. - Commentary on Public Liability, Insurance Act
5 Murthy & Sharma - Modern Law of Insurance in India
6 SurendraYadav - Insurance Law (in Hindi)

Recommendation for practical exposure:-

1. Facts and Analysis of Legal Principle on**Insurance Law (0.5 Credit)**
2 One Leading Cases- Study and Analysis on**Insurance Law (1.5 Credits)**
3. 10 Practice Session for topic of contract (1 Credit)

Professional Ethics and Professional Accounting System

Credits-8

Objectives: The objective of the course is to familiarize students with Professional Ethics.

Unit I: Professional conduct of a lawyer, Professional conduct, Professional misconduct, professional responsibility of advocates, Conduct of advocate in general, Arguments in appeals and revisions.

(2 Credit)

Unit II: Skill of attracting clients, Persuasion through arguments, Preparation of brief, Future problems of advocacy, Fee structure, maintaining accounts of clients fee.
(2Credit)

Unit III: Contempt of courts and lawyers, Strikes, protects and demonstrations by legal professions Information Technology and Legal Profession, Advocates and Political Activities.
(1 Credit)
Recommended Text Books

1. The Bar Council Code of Ethics
2. The Contempt of Court Act
3. Mr. Krishnamurthy Layer's book on 'Advocacy'.

Recommendation for practical exposure:-

1. Facts and Analysis of Legal Principle on **Professional Ethics and Professional Accounting System (0.5 Credits)**
2 One Leading Cases- Study and Analysis on **Professional Ethics and Professional Accounting System (1.5 Credits)**
3. 10 Practice Session for topic of contract (1 Credit)

Environmental Science and Disaster Management

Credit-1

Objective: To enable students to aware about the Environmental Science for sustainable development and also about the Disaster Management for precautionary as well as rescue purpose.

UNIT I(Ecosystem and pollution) (0.25-0-0)
Theory (0.75 credits)
Environmental Science and Ecosystem: Definition, scope and importance, Concept of Ecosystem, Ecological Pyramids, and Functions of Ecosystem: brief idea of energy flow. Environmental Pollution and other Problems: Definition, Causes, Effect, Control and preventive measures of air, water, noise, nuclear pollution. Global problems: Climate change, global warming, Ozone layer depletion and Acid Rain.

UNIT II(Biodiversity and Conservation) (0.25-0-0)
Theory (0.75 credits)
Biodiversity and its Conservation: Definition, Types and Importance, Spots of Biodiversity, Endangered and Endemic Species of India, Threats to Biodiversity, Habitat loss, Poaching of wild life, Conservation of Biodiversity: Brief idea of *in situ* and *ex situ* conservation of Biodiversity.   Brief idea of Natural Resources and their conservation

UNIT III (Concept and Types of Disaster) (0.25-0-0)
Theory (0.75 credits)
Concept and definitions (Disaster, Hazard, Vulnerability, Resilience, Risks), Disaster: classification, causes, impacts (including social, economic, political, environmental, health, psychosocial, etc), Differential impacts-in terms of caste, class, gender, age, location, disability, Global trends in disasters, urban disasters, pandemics, complex emergencies, climate change, Disaster cycle-its analysis, phases, culture of safety, prevention, mitigation, and preparedness, community based DRR, Structural –non structural measures, roles and responsibilities of community, Panchayati Raj Institutions/Urban Local Bodies (PRIs/ULB,s) states, Centre and other stake-holders.

UNIT IV (Components and Management of Disaster) (0.25 -0-0)
Theory (0.75 credits)
Factors affecting Vulnerabilities, differential impacts, impact of development projects such as Dams, embankments, changes in Land use etc, Climate change Adaptation, Relevance of indigenous knowledge, appropriate technology and local resources, Disaster risk Management in India: Hazard and Vulnerability profile of India, Components of Disaster Relief: Water, Food, Sanitation, Shelter, Health, Waste Management, Institutional arrangements (Mitigation, Response and Preparedness, DM Act and Policy, Other related policies, plans, programs and legislation, Project Work: (Field Work, Case Studies)

Recommended Text Books:

1. "Disaster Management (2003)"- H.K. Gupta
2. Elements of Environmental Science (2012) Kaushik and Kaushik

Reference Books:

1. P. Bakre, V. Bakre and V. Wadhwa. 2005. ParyavarniyaAdhyyan. Rastogi Publications, Meerut.
2. E. Bharucha. 2005. Environmental Studies. University Press, Hyderabad.
3. G.R. Chatisel and H. Sharma. 2005. A Text Book of Environmental Studies. Himalaya Publishing House, Delhi.
4. J.P. Sharma. 2005. Environmental Studies. Laxmi Publications Ltd., Jalandhar.
5. S.V.S. Rana. 2007. Environmental Studies. Rastogi Publications, Meerut.
6. P.D.Sharma .2008. Environmental Science. RastogiPublication , Meerut.

Internship   **Credits-12**
Each student shall undergo Internship of minimum 80 Hours during the vacations after Third semester either with an Advocate, corporate, a law firm ,NGO as per BCI directions and submit at least two copies of the Internship Report to the Dean of the Institution within two weeks of the commencement of the Fourth. Semester. It shall be evaluated by a Board of Members consisting of
   (i)   Dean of the Institute
   (ii)   Two faculty members and an invitee from outside University/Institute.

IV SEMESTER

Muslim Law

Credits-8

Objective: The objective of the course is to give knowledge regarding Muslim Law .

Unit I: Mohammedan Law:Origin, Development, Sources, Schools, Application, Interpretation and Conversion. Marriage: Nature of marriage, Essentials of marriage; Khvar-bulugh, Iddat, Khalwat-us-sahiha, Matrimonial stipulation, Kinds of marriage and Effects of marriage, Mahr: Meaning, Nature, Kinds, Object and Subject-matter. Wife's rights on non-payment of dower. Dissolution of Marriage: TalaqIIa, Zihar, Talaq-e-T fweexz, Mubarat, Khula, Lian, Faskh- Section 2 of the dissolution of Muslim Marriage Act, 1939; Legal effects of divorce.

(2Credit)

Unit II: Pre-emption: Meaning, nature and classification of HaqShufa (Pre-emption); Rights of pre-emption, when conflict of laws, subject matter and formalities of pre-emption, legal effects of pre-emption, Devices for evading pre-emption. Gift: Meaning and requisites to gift (Hiba); Gift of Musha, Conditional and future gifts, Life estate, Life interest, (Hiba-bit-iwaj, Hiba-iul-iwaj). Will (Vasiyat): Competence of testator and legatee, Valid subjects of will: Testamentary limitations, Formalities of a will and abatement of Legacy. Legitimacy and Acknowledgement: Legitimacy and legitimation, Presumption of legitimacy under Muslim Law and Section 112 of the Indian Evidence Act, Conditions of a valid acknowledgement.

(1.5Credit)

Unit III: Maintenance:Persons entitled to maintenance, Principles of maintenance; The Muslim Women (Protection of Rights on Divorce) Act, 1986. Death Bed Transactions: Meaning and effect of Marj-ul-Maut. Wakf: Meaning, Essentials and Kinds, Benificiaries of Wakf; The Wakf Validating Act, 1913; Formalities for creation of Wakf; Wakf of Musha; Muslim religious institution and officers; Administartion of Wakf; Mutawalli. Inheritance: General Principle of Law in heritance, Doctrines of Aul and Radd under Hanafi and Shia Law.

(1.5Credit)

Leading Cases
1. MainaBabi v. ChoudharyVakil Ahmed, (1923) 52 IA I45
2. HabiburRahman v. Altaf Ali (1921) 42 IA II4
3. MoonsheeBuzul-ul-Raheem v. LuteefauiaNissa, (1061) 8 MLA 379
4. Abu Fata Mohd. v. RussomoyDharChowdhary (1894) 22 IA 76
5. Mohd. Ahmed Khan v. Shah BanoBegaum, AIR (1985) SC 945

Recommended Books:

1. Myneni- Muslim Law, Asia Law House.
2. Mulla- Mohammedan Law, Dwivedi law agency.

Recommendation for practical exposure:-
1. One Moot Court on Maintenance. (1 Credit)
2. Two Leading Cases- Study and Analysis on Muslim Marriage and Pre-emption . (2 Credit)

Basic of Indian Constitutional Law

Credits-8

Objective: This paper is to orient students with constitutional rights and duties: perspective as well as remedies.

Unit – I Fundamental Rights – I : Definition of 'State' for enforcement of fundamental rights – Justifiability of fundamental rights – Doctrine of eclipse, severability, waiver. Distinction between pre-constitutional law and post-constitutional law. Right to equality – Doctrine of Reasonable classification and the principle of absence of arbitrariness, Fundamental freedom: Freedom of speech and expression, freedom of association, freedom of movement, freedom to reside and settle, freedom of trade, business and profession – expansion by judicial interpretation – reasonable restrictions

(2 Credit)

Unit – II: Fundamental Rights – II: Right to life and personal liberty – scope and content – (expensive interpretation), Preventive detention under the Constitution – Policy and safeguards – Judicial review, Right against exploitation – Forced labour and child employment, Freedom of religion, Right to Constitutional Remedies – Judicial Review - Writs – Hebeas Corpus, Mandamus, Certiorari, Prohibition and Quo-warranto- Art 32 and 226

(1.5Credit)

Unit – III: Directive Principles of State Policy – Nature and justiciability of the Directive Principles – Inter-relationship between Fundamental Rights and Directive Principles, Fundamental Duties, Social justice under the Indian Constitution – Compensatory discrimination for backward classes – Mandal Commission's case and other cases – Protective discrimination doctrine

(1.5 Credit)

Recommended Books:

1. Pandey, J N- Constitutional Law of India, CLA.
2. Sharma, Brij Kishore- Introduction to Constitution of India, PHI.

   Recommendation for practical exposure:-
1. Two Moot Court on fundamental rights and Compensatory discrimination for backward classes .

(2 Credit)

2. Seminar onConstitutional Remedies. (1 Credit)

Law of Crimes (Specific)

Credits-8

Objective: This paper is to focus on the study of substantive crimes under the Indian Penal Code

Unit – I : Offences affecting the Human body- Offences affecting life, causing miscarriage, or injuries to unborn children, Offences of hurt, of wrongful restraint and wrongful confinement, Offences of criminal force and Assault, offences of kidnapping and Abduction

(2 Credit)

Unit – II: Offences against Women- Obscene acts and songs, Outraging the modesty of women, Rape, Cruelty by husband or relatives of husband, Offences relating to marriage

(1 Credit)

Unit – III: Offences against Property- Theft, Extortion, robbery and decoity, Criminal misappropriation and criminal breach of trust, Cheating, Mischief, Criminal trespass. Defamation, offences relating to documents and property marks- Forgery, Counterfeiting

(2 Credit)

Recommended Books:

1. Myneni- Criminal Law 2, Asia Law House.

   Recommendation for practical exposure:-
1. One Moot Court on Offences against Women . (1 Credit)
2. Two Leading Cases- Study and Analysis onOffences affecting the Human body and Property. (2 Credit)

Drafting, Pleading and Conveyancing

Credits-8

Objective The object of this paper is to train students in the art of drafting both for court purposes as well as for other legal forums

Unit – I: Fundamental Rules of Pleadings -Plaint Structure , Description of Parties , Written Statement and affidavit , Application for setting aside ex-part decree .

(2Credit)

Unit – II: Ordinary suit for Recovery- Suit under Order XXXVII of CPC and the difference between the two suits, Suit for Permanent Injunction, Application for temporary injunction Order XXXIX of CPC, Suit for Specific Performance, Petition for eviction under the Delhi Rent Control Act

(1 Credit)

Unit – III: General Principles of Criminal Pleadings - Application for bail , Application under Section 125 Cr.P.C. , F.I.R. – under Section 154 Cr.P.C. ,Model Draft- Forms i. Notice to the tenant under section 106 of Transfer of Property Act ii. Notice under section 80 of CPC iii. Reply to notice iv. General Power of Attorney v. Will vi. Agreement to SELL vii. Sale – deed viii. Suit for Dissolution of Partnership ix.Petition for grant of probate / Letters of Administration x. Application for appointment of receiver/Local Commissioner xi. Application for Compromise of Suit xii. Application for Appointment of Guardian xiii. Application to sue as an indigent person under Order 33 CPC xiv. Appeal from original decree under Order 41 of CPC xv. Appeal from orders under order 43 of CPC xvi. Revision Petition xvii. Review Petition xviii. Application under section 5 of Limitation Act xix. Application for execution xx. Application for caveat section 148A of CPC xxi. Writ Petition xxii. Application under section 482 of CPC xxiii.Compounding of offences by way of compromise under section 320(i) Cr.P.C. xxiv. Lease deed xxv. Special Power of Attorney xxvi. Relinquishment Deed xxvii. Partnership Deed xxviii. Mortgage Deed xxix. Reference to Arbitration and Deed of Arbitration xxx. Deed of gift xxxi. Notice under section 434 of the Companies Act xxxii. Notice for Specific Performance of Contract

(1 Credit)

Recommended Books:

1. Conveyancing – N.S. Bindra
2. Conveyancing – A.N. Chaturvedi
3. Mogha's Law of Pleading
4. Conveyancing – D'Souza

Recommendation for practical exposure:-

1. Practice to make Plaint ,Written Statement and affidavits. (4 Credit)

Forensic Science and Law

Credits-8

Objectives: The objective of the course is to familiarize students with Forensic Science and Law.

Unit I: The Role of Forensic Science in Criminal and Civil Cases: The basic quest in investigation-Qui bono , the scene of crime , discovery of cases , traces of physical evidence , classification and reference to classified record. Systemization and classificat of physical evidence and comparison with suspected material , the principles of exchange , the principles of heredity , dexonomy etc. **The establishment of Identity of an individual**: Branding , tattooing , mutilating , scars and moles , bartillon system; photography , fingureprints , ridge characteristics , proxpopy. **The establishment of practical Identity of an individual**: Foot prints, hair , skin , blood grouping , physical peculiarity. **The establishment of Identity of Physical objects by shape and size:** Identifying marks and impressions made by physical objects; shoe prints , type and trade marks , dye and tool marks , rupture and fracture marks. **The establishment of Identity of Physical objects by Physical and Chemical Analysis:** Prints , coloured objects, Metals, alloia , chain and the earthen wares , cements, plasters , bricks , dusts , soil and mineral plastics.
(3Credit)

Unit II: Questioned Documents and Identification of Handwriting: Paper: Its types and identification, inks, pencils and writing tools, hand writing habit, flow, disguised writing comparison and points of identity, sample.Various types of Forgery and the detection; additions; crasures; alteration; scales, rubber stamps, type writing, printing and blocks. **Identification of Fire Arms and Cartrages and Related Problems**: Types of Fire Arms and their use; time and range of firing; Identification of a Fire Arm with a cartrage case and bullets. **Injuries to Persons:** Evidentiary value of details of injuries; traces, left by the weapons used; its range and direction; danger to clothing worn by victim and related problems. The flow of blood from injuries; the shape and directions of blood drops and their evidentiary value; the discovery of blood and semen stains on various objects; accidental deaths and suicides.
(1Credit)

Unit III: Miscellaneous Forensic Science Methods: Restoration of Numbers; Examination of walking pictures of foot prints; clothing; cooper wire; pieces of wood etc. **Evidentiary value of physical evidence as evaluated in a Forensic SciencesLaboratory viz: Evidence:** Findings of Scientific Methods of Investigations; DNA, Narco Analysis, Brain Mapping and Lie Detector Test.
(1Credit)

Suggested Readings:
1. Gour, AN; Fire Arms, Forensic Ballistics, Forensic Chemistry and Criminal Jurisprudence
2. Lucas A; Forensic Chemistry and Scientific Criminal Investigation
3. Lund Quist; Methods of Forensic Science (Volume-I)
4. Moreland, N; Science in Criminal Detection Illustrated
5. Paul; Narco Analysis, Brain Mapping and Lie Detector Tests
6. Mody; Medical Jurisprudence

Recommendation for practical exposure:-

1. One Moot Court onForensic Science and Law. (1 Credit)
2. Two Leading Cases- Study and Analysis on Forensic Science (2 Credit)

Criminology and Penology

Credits-8

Objective: The paper is to equip the students with Criminology and penology.

Unit I: Criminology: Definition, nature and scope, methods of studying, importance and classification of crime, Criminal Behaviour: (i) Explanations, (ii) Psychological Theories: Alcoholosms and Drugs.Crime and social process: Economic Motivation, Socio-cultural movements, crime are Community, Female Offender, Juvenile Delinquency, influence of mass-media.Schools of Criminological Thought (Factors in causation of Criminal Behaviour):
1. Ancient School: (i) Demonological, (ii) School of Free-well 2. Classical School
3. Cartographic or Ecological School 4. Socialistic School 5. Typological School: (i) Italian or Positive School, (ii) Mental Testers School, (iii) Psychiativists School
6. Sociological School 7. Multi-factor School

(3 Credit)

Unit II: Control of Crime: Police and Law Courts: Prison system-Re-socialisation of the offender, rehabilitation of discharged prisoners in the administration of Criminal Justice, Prevention of Crime Delinquency, Definition of punishment, relationship between Criminology and Penology: Theories of Punishment, Expiatory, Preventive and Reformative and Purpose of Punishment, Penal Science in India: History of Punishment, Pre-classical school, classical school, Neo-classical Positive School, The Reformer, Clinical School and Multiple Causation Approach.

(1 Credit)

Unit III: Kinds of Punishment: Modes of treatment of offenders, Corporeal Punishment, Transportation of Criminals, Capital Punishment, Imprisonment, Reactional, Treatment, Probation, Parole, Compensation, Admonition, Treatment of Habitual Juvenile, Sex and Adolescent offenders indevaminita sentences, Borastal School, Criminal Procedural Jurisprudence. Constitutional Guarantees: Principle of natural justice as applicable to Procedural Law, Protection to arrested persons, Under-trials, Detenue and Convicted Persons, Double jeopardy and self-incrimination, Rights to Life and Legal Aid.

(1 Credit)

Recommended Books:

1. Sutherland: Principles of Criminology (latest Edition)
2. Taft: Criminology (latest Edition)
3. Pillai: Principles of Criminology

   Recommendation for practical exposure:-

   1. Two Leading Cases- Study and Analysis on Criminology and Penology. (2 Credit)
   2. One Seminar on Criminology and Penology. (1 Credit)

Administrative Law

Credits-8

Objective:

The purpose of this paper is make students aware of various aspects of administrative law including quasi-legislative, quasi-judicial and other ministerial functions of administration and control thereof.

Unit – I:

Evolution and Scope of Administrative Law- Nature, Scope and Development of Administrative Law, Rule of law and Administrative Law, Separation of powers and its relevance, Relationship between Constitutional law and Administrative Law, Administrative Law vis-à-vis privatization, Classification of functions of Administration

(2 Credit)

Unit – II:

Legislative Functions of Administration- Necessity and Constitutionality, Forms and requirements, Control: Legislative, Judicial, Procedural, Sub-delegation, Judicial Functions of Administration- Need for devolution of adjudicatory authority on administration, Nature of tribunals – Constitution, powers, procedures, rules of evidence, Administrative Tribunals, Principles of Natural Justice: Rule against bias, Audi AlteramPartem, Reasoned decisions, Rules of evidence – no evidence, some evidence and substantial evidence, Institutional Decisions

(2Credit)

Unit – III:

Administrative Discretion- Need and its relationship with rule of law, Constitutional imperatives and exercise of discretion, Grounds of judicial review: Abuse of discretion, Failure to exercise discretion, Doctrine of legitimate expectations. Judicial Control of Administrative Action- Introduction, Court as the final authority to determine the legality of administrative action, Exhaustion of Administrative remedies, Locus standi, Laches, Res judicata, Judicial review and its extent. Methods of judicial review- Statutory appeals, Writs, Declaratory judgements and injunctions, Civil Suits for Compensation

(1Credit)

Recommended Text Books

1. Principles of Administrative Law – M.P. Jain & S.N. Jain
2. Administrative Law – I.P. Massey

Suggested Readings:

1. Administrative Law – Wade
2. Lectures on Administrative Law – C.K. Takwani
3. Administrative Law – S.P. Sathe

Essential Case Law:

1. Ram Jawaya v. State of Punjab (AIR 1955 SC 549)
2. AsifHameed v. State of J & K (AIR 1989 SC 1899)
3. A.N. Parasoraman v. State of Tamil Nadu AIR 1990 SC 40, (Administrative discretion)
4. State of Punjab v. V.K. Khanna, AIR 2001 SC 343 (Mala fide exercise of power)
5. State of Bombay v. K.P. Krishnan AIR 1960 SC 1322 (irrelevant considerations
6. ShrilekhaVidyarthi v. State of U.P. (AIR 1991 SC 537) (Reasonnablenes)
7. Delhi Laws Act case, AIR 1951 SC 332
8. LachmiNarain v. Union of India AIR 1976 SC 714 (Modification)
9. A.V. Educational Society v. Govt. of A.P. Educational Department (AIR 2002 A.P. 348) (Judicial Control of delegated Legislation)
10. M/s Atlar Cycle Industry Ltd. v. State of Haryana (Legislative Control)
11. GovindLalChagganLal Patel v. The Agriculture Produce Market Committee (AIR 1976 SC 236) (Procedural Control)
12. Kiran Gupta v. State of U.P. (AIR 2000 SC 3299) (Delegated Legislation)
13. Indian National Congress (1) v. Institute of Social Welfare (AIR 2002 SC 2158) (Classification of Administrative Action)
14. A.K. Kraipak v. Union of India (AIR 1950 SC 150)
15. HiraNath v. Rajendra Medical College (AIR 1973 SC 1260)
16. Maneka Gandhi v. Union of India (AIR 1978 SC 597)
17. S.N.Mukherjee v. Union of India (AIR 1990 SC1986)
18. KumaonMandalVikas Nigam Ltd. v. Girja Shankar Pant (AIR 2001 SC 24) (Natural Justice, Test of Bias)
19. State of U.P. v. Johrimal (AIR 2004 SC 3800) (Judicial Review) Johri Mal
20. SayedYakoob v. RadhaKrishan (AIR 1974 SC 477) (Writ Jurisdiction)
21. ShriAnadiMuktaSadguru Trust v. V.R. Rudani (AIR 1989 SC 1607) (Mondemus)
22. R.K. Singh v. Union of India (AIR 2001 Delhi 12) (Mandemm)
23. KanhaiyaLalSethia v. Union of India (AIR 1998 SC 365) (Judicial review cannot be on policy matters)

Recommendation for practical exposure:-

1. Facts and Analysis of Legal Principle on **Administrative Law (0.5 Credits)**

2 One Leading Cases- Study and Analysis on **Administrative Law (1.5 Credits)**

3. 10 Practice Session for topic of contract (1 Credit)

Internship

Credits-12

Each student shall undergo Internship of minimum 80 Hours during the vacations after Fourth semester either with an Advocate, corporate, a law firm ,NGO as per BCI directions and submit at least two copies of the Internship Report to the Dean of the Institution within two weeks of the commencement of the Fifth Semester. It shall be evaluated by a Board of Members consisting of
(i) Dean of the Institute
(ii) Two faculty members and an invitee from outside University/Institute.

LL.B. 3rd YEAR
V SEMESTER

Introduction to Code of Civil Procedure & Limitation

Credits-8

Objective: This paper is to help a law student to acquire a thorough knowledge of procedural aspects of working of civil courts and other machineries.

Unit – I: Introduction- Definitions: Decree, Judgment, Order, Foreign Court, Foreign Judgment, Mesne Profits, Affidavit, Suit, Plaint, Written Statement, Important Concepts: Res Sub-Judice, Resjudicata, Restitution, Caveat, Inherent powers of courts.   (2 Credit)

Unit – II: Initial steps in a suit- Jurisdiction and place of suing, Institution of suit, Pleadings: Meaning, object, General rules, Amendment of pleadings, Plaint and written statement, Discovery, Inspection and production of documents, Appearance and non-appearance of parties, First hearing

(1 Credit)

Unit – III: Interim Orders- Commissions, Arrest before judgment, Attachment before judgment, Temporary Injunctions, Interlocutory orders, Receiver, Security of costs. Suits in Particular Cases- Suits by or against Government, Suits by Indigent persons, Interpleader Suit, Summary Procedure, Suits relating to public nuisance. The Limitation Act, 1963 (Omitting the Schedule): Purpose, Policy, Nature and Scope of the Act. Definitions: Applicant, bond, defendant, easement, good faith, plaintiff, period of Limitation.

(2 Credit)

Recommended text Books:
1. Code of Civil Procedure, 1908 (Relevant Provisions)
2. The Limitation Act, 1963
3. C.K. Takwani, Code of Civil Procedure
4. Mulla – Code of Civil Procedure
5. Sarkar's Code of Civil Procedure

Suggested Readings:
1. Ganguly – Civil Court, Practice and Procedure
2. M.P. Tandon – Code of Civil Procedure

Essential Case Law:
1. Topandas V/s Gorakhram, AIR 1964 SC 1348
2. Dhulabhai V/s State of H.P., AIR 1969 SC 78
3. Premier Automobile V/s Kamlakar, 1976 (1) SCC 496
4. Rajasthan State Road Transport Corpn. V/s Krishna Kant – 1995 (5) SCC 75
5. Pandurang V/s Shantibai, AIR 1989 SC 2240
6. Workmen C.P. Trust V/s Board of Trustee, 1978 (3) SCC 119
7. Razia Begum V/s Anwar Begum, AIR 1958 SC 886 (895)
8. B.K.N. Pillai V/s P. Pillas, AIR 2000 SC 614
9. Sangram Singh V/s Election Tribunal, AIR 1955 SC 425
10. Martin Burn Ltd. V/s Banerjee, AIR 1958 SC 79
11. Dalpat V/s Prahlad,. 1992 (1) SCC 719
12. Gujrat Battling Co. Ltd. Coca Cola Co., 1995 (5) SCC 545
13. Morgan Stanly V/s Kartick Das, 1994 (4) SCC 225
14. BihariChordhary V/s State of Bihar, 1984 (2) SCC 627
15. Raj Duggal V/s Ramesh Kumar, AIR 1990 SC 2218

Recommendation for practical exposure:-
1. Facts and Analysis of Legal Principle on**Introduction to Code of Civil Procedure & Limitation (1 Credits)**
2 One Leading Cases- Study and Analysis on**Introduction to Code of Civil Procedure & Limitation (1 Credits)**
3. 10 Practice Session for topic of Civil Procedure (1 Credit)

Introduction to Code of Criminal Procedure

Credits-8

Objective: This paper is to give students thorough knowledge of procedural aspects of working of criminal courts and other machineries.

Unit – I: Introduction- Definitions, Constitution and powers of Criminal Courts and Offices, Provisions for Investigations: Arrest and Bail provisions, Information to the Police and their powers to investigate

(1.5 Credit)

Unit – II: Process to Compel Appearance and Production of things- Summons for Appearance, Warrant of arrest, Proclamation and attachment, Other rules regarding processes, Summons procedure, Search Warrants, General provisions as to search, Miscellaneous.

(2 Credit)

Unit – III: Proceedings before Magistrate- Conditions requisite for initiation of proceedings, Complaints to Magistrates, Commencement of proceedings before Magistrates, Security Proceedings

(2 Credit)

Recommended Text Books :

1. Rattan Lal&Dhirajlal – Code of Criminal Procedure
2. R.V. Kelkar – Code of Criminal Procedure

Suggested Readings:

1. S.N. Mishra – Code of Criminal Procedure
2. Ganguly – Criminal Court, Practice and Procedure

Recommendation for practical exposure:-

1. Facts and Analysis of Legal Principle on **Introduction to Code of Criminal Procedure (0.5 Credit)**
2. One Leading Cases- Study and Analysis on **Introduction to Code of Criminal Procedure (1 Credit)**
3. 10 Practice Session for topic of Civil Procedure (1 Credit)

Law of Evidence

Credits-8

Objective: This paper is to orient students with importance of evidence for establishment of claims and the related rules and principles.

Unit – I: Introduction and Relevancy- Evidence and its relationship with the substantive and procedural laws, Definitions – Facts, facts in issue, relevant, evidence proved, disproved, not proved, oral and documentary evidence, Relevancy and admissibility, Doctrine of res gestae, Conspiracy, Statement – Admissions, Confessions and Dying Declarations

(2 Credit)

Unit – II: Method of proof of facts- Presumptions, Expert opinion, Character, Oral and documentary evidence, Rules relating to Burden of proof, Estoppel, Privileged Communications

(1 Credit)

Unit – III: Presumptions regarding discharge of burden of proof- Evidence by accomplice, Judicial notice, Dowry Death, Certain Offences   (2 Credit)

Recommended Text Books

1. Rattan Lal & Dheeraj Lal – Evidence
2. **Avtar Singh – Evidence**
3. **Monir – Evidence**

Recommendation for practical exposure:-

1. Facts and Analysis of Legal Principle on**Law of Evidence (1Credits)**

2. One Leading Cases- Study and Analysis on **Law of Evidence (1 Credit)**

3. 10 Practice Session for topic of Law of Evidence (1 Credit)

Health Care Law

Credits-8

Objective: This paper focuses on various aspects of health care law including the constitutional perspective, obligations and negligence of medical professionals and remedies available to consumers of health care.

Unit – I: Medicine and Healthcare- Healthcare as an issue at the national and international level , Constitutional provisions- Right to Health as a Fundamental Right , Remedies available under the Indian Constitution , Right to health vis-à-vis the right to confidentiality , Access to medical records

(1.5 Credit)

Unit – II: Professional Obligations of Doctors- Transplantation of Human Organs Act, 1994 , Pre Conception & Pre Natal Diagnostic Techniques (Prohibition of sex selection) Act, 1994 , International Code of Medical Ethics , Indian Medicine Central Council Act, 1970 , Dentists Act, 1948 , The Homeopathy Central Council Act, 1973 , The Drugs and Cosmetics Act, 1940

(2Credit)

Unit – III: Medical Negligence- Ingredients , Role of consent in medical practice , Error of judgment and gross negligence , Wrongful diagnosis and negligent diagnosis , Remedies for Medical negligence- Law of Torts , Law of Crimes , Consumer Protection Law

(1.5 Credit)

Recommended Text Books

1. Vijay Malik – Drug and Cosmetic Act, 1940
2. Anoop K. Kaushal – Medical Negligence & Legal Remedies

Suggested Readings:
1. Dr. Jagdish Singh – Medical negligence Compensation
2. B.K. Dutta – Drug Contro

Recommendation for practical exposure:-

1. Facts and Analysis of Legal Principle on **Health Care Law (1 Credit)**
2. 2 One Leading Cases- Study and Analysis on **Health Care Law(1 Credits)**
3. 10 Practice Session for topic of Law of Evidence (1 Credit)

Alternative Dispute Resolution Laws and Legal Service Authority Act, 1987

Credits-8

Objective: The objective of this paper is to acquaint students with various modes of ADR.

Unit – I: Introduction - Alternative Dispute Resolution (ADR): Concept and Need, Techniques of ADR – I - Negotiation / Consultation , Mediation , Good offices , Techniques of ADR – II- Conciliation: Nature, Scope and Methods , Arbitration – Arbitration agreement / Clause

(1.7 Credit)

Unit – II: Jurisdiction of the arbitral tribunal, Applicable Law; IIC, UNCITRAL, KSID, The Arbitration and Conciliation Act 1996. Recognition and Enforcement- Indian Practice, International Practice.

(1 Credit)

Unit – III: Legal Aid: - Concept, Dimensions and Practice, Constitutional Provisions, Legal Services Authority Act, 1987:Functions of National Legal Services Authority, State Legal Services Authority and District Legal Services Authority; Organisation of LokAdalat, Jurisdiction and Powers of LokAdalats, Procedure for determination of Dispute before the LokAdalat. Legal Literacy Mission   (2 Credit)

Recommended Text Books

1. International Dispute Settlement – J.G. Merrills
2. The Arbitration and Conciliation Act,1996
3. Legal Services Authority Act, 1987
4. Sunil DeshtaLokAdalats in India- Genesis & Functioning

   Recommendation for practical exposure:-
1. Facts and Analysis of Legal Principle on **Alternative Dispute Resolution Laws and Legal Service Authority Act, 1987 (1 Credits)**
2. 2 One Leading Cases- Study and Analysis on **Alternative Dispute Resolution Laws and Legal Service Authority Act, 1987 (1.3 Credits)**
3. 10 Practice Session for topic of Law of Evidence (1 Credit)

Rajasthan Land Laws

Credits-8

Objectives: The objective of the course is to familiarize students with Rajasthan Land Laws.

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Unit I: Rajasthan Tenancy Act, 1955: Preliminary: Objects and Reasons, Definition, Khudkasht (Sections 1 to 130, Ijredars, Grove Holder (Sections 194 to 205): Classes of tenants (Section 14 to 17-A): Conferment of rights on sub-tenants of KhudKasht (19), Primary right of tenants (Section 31 to 37): Surrender, Abandonment and Extinction of tenancies of tenancles (Section 55 to 64), Improvements and Trees (Sections 65 to 87): Declaratory Suits (Sections 88 to 92): Determination and Modification of Rent (Section 91 to 129): Payment and Recovery of Rent (Section 130 to 160): Grounds for Ejectment of Tenants, Remedies for wrongful ejectment (Sections 169 to 188).   (2Credit)

Unit II: Procedure and Jurisdiction of Court (Sections 216 to 221), Provisions for injunction and appointment of Receiver (Section 212), Appeal, Review, Revision (Sections 222-232): Reference, Question of Proprietary Rights in Revenue Courts (Section 239): Question of Tenancy right in Civil Court (Section 242), Conflict of Jurisdiction (Section 243).

(2Credit)

Unit III: The Rajasthan Land Revenue Act, 1956: The Board of Revenue, Revenue Courts and Officers (Sections 4 to 30) Appeal, Reference, Revision and Review (Sections 74-87), Land (Sections 88 to 105) Survey (Section 100-112), Record of Rights, Maintenance of maps and record, Annual Registers (Sections 113-137), Settlement Opeartions, Rent Ratio, Determination of Rent, Term of Settlement (Sections 142-177), Collection or Revenue (Sections 224-257), Rajasthan Rent Control Act, 2002.

(2 Credit)

Leading Cases
1. Prabhu v. Ramdeo, AIR 1966 SC 172
2. Kanaimal v. KanhaiyaLal, 1966 RLW 179
3. Bohra v. Ganesh, 1966 RRD 71 (FB) 1966 RLW
4. Yasin Shah v. Munir Shah, 1967 RRD 37
5. MangiLal v. Chotu, 1967 RRD 433
6. Smt. Mulashi v. Rama Lal, 1976 RRD 88

Recommended Text Books

Dutt, S.K. - Rajasthan Land Revenue Act

Suggested Readings
1. ShyamLal Gupta - The Rajasthan Tenancy Act
2. Dutt, S.K. - Tenancy Law in Rajasthan
3. Suresh Chand - Law of Tenancy in Rajasthan
    H. Mathur
4. Dutt, S.K. - Rent Control in Rajasthan
5 Karkara, G.S. - Rajasthan Land Laws (English & Hindi)
6 Babel, B.L. - Rajasthan Land Laws (Hindi)
Recommendation for practical exposure:-

1. Facts and Analysis of Legal Principle on **Rajasthan Land Laws (0.5 Credit)**
2. One Leading Cases- Study and Analysis on **Rajasthan Land Laws   (.5 Credits)**
3. 10 Practice Session for topic of Law of Evidence (1 Credit)

Banking Law

Credits-8

Objectives: The objective of the course is to familiarize students with Banking Law.

Unit I: Introduction: Banking: Definition, Commercial Banks: Function, Agency Services, International Trading Service, Emergence of multi functional dimensions, System of Banking: Unit Banking, Branch Banking, Group Banking and Chain Banking, Banking Companies in India. Rights and Obligations of Banks: Right of Set-off, Banker's Lien, Obligation to honour customer's cheques, Accounts of customers, Current Accounts, Deposit Accounts, Joint Accounts, Trust Accounts, Special types of customers: Lunatics, Minors, Agents, Administrators, and Executors, Partner Firms and Companies.

(1.5 Credit)

Unit II: Control over Banks: Controls by Government and its agencies, Need for-eliminations of systemic risk, evidence money laundering, Consumers Protection, Promotion of fair competition. On Accounts and Audit: On money lending, reorganization and reconstruction, on suspension and winding up, control by ombudsman. Control Banking Theory and the RBI: Evolution of Central Banks, characteristics and function of Central Banks, Central Bank as Banker and Adviser of the State, Central Bank as Banker's Bank, The Reserve Bank of India as Central Bank in India, objectives and organizational structure functions. Regulations of the Monetary System: Monopoly of note issue, credit control, determination of bank rate policy, open market operations, banker to government, control over non-banking financial institutions, control and suppression of other banks.

(1.5 Credit)

Unit III: Leading by Banks: Principles of bank advances, Pledge, Mortgage, Charge, Goods or documents of title to goods, life insurance policy as security.
Debentures and Guarantees as security: Kinds of guarantees, specific and continuing, Society rights and liabilities, Repayment, Interest: Rules against penalties, Default and Recovery, Recovery of debts due to banks and financial institutions act, 1993, Establishment of: Debt Recovery Tribunals-Constitutions and Functioning. Merchant Banking: Merchant Banking in India, SEBI (Merchant Bankers) Regulations, 1992. Letter of Credit and Demand Guarantee: Letter of credit, Basic features, Parties to a Letter of Credit, Fundamental Principals.

(1 Credit)

Recommended Text Books

M.L. Tannen, The Banking Law in Theory and Practice (1999) Universal New Delhi

Suggested Readings

1S.N. Gupta, The Banking Law in Practice (1999) Universal New Delhi

2. T.K. Mukherjee Banking Law and Practice (1999) Universal New Delhi

Recommendation for practical exposure:-

1. Facts and Analysis of Legal Principle on **Banking Law**

(1.5 Credit)

2. One Leading Cases- Study and Analysis on **Banking Law**

(1.5 Credit)

3. 10 Practice Session for topic of Law of Evidence

(1 Credit)

Code of Civil Procedure & Limitation

Credits-8

Objective: This paper is to give to a law student a thorough knowledge of procedural aspects of working o f civil courts and other machineries.

Unit –I: Judgment and Decree- Judgment: Definition, Essentials, Pronouncement, Contents, and Alteration, Decree: Definition, Essentials, Types, Drawing up of a decree, Contents, and Decree in particular cases, Interest, Costs

(1.5 Credit)

Unit-II: Execution- Courts by which decree may be executed, Payment under decree, Application for Execution, Mode of Execution, Stay of Execution, Questions to be determined by executing court

(1.5 Credit)

Unit-III: Appeals- Appeals from original decree, Appeals from appellate decrees, General provisions relating to appeals, Appeals to the Supreme Court, Appeals by Indigent persons. Reference, Review and Revision- reference to High Court, review & revision. The Limitation Act, 1963: Relationship between limitation, laches, acquiescence, estoppel and res judicata; Limitation of suits, appeals and applications, disability, computation of period of limitation, acknowledgement and part payment, acquisition of ownership by prescription

(2Credit)

Recommended Books:
1. Mulla – Code of Civil Procedure
2. Sarkar's Code of Civil Procedure

Suggested Readings:

1. Code of Civil Procedure, 1908 (Relevant Provision)
2. The Limitation Act,1963
3. M.P. Tandon – Code of Civil Procedure

   Recommendation for practical exposure:-
1. Two Moot Court on Civil Cases. (2 Credit)
2. One Leading Case- Study and Analysis onCivil Appeal.

(1 Credit)

Code of Criminal Procedure

Credits-8

Objective: This paper focuses on procedures dealing with criminal cases

Unit-I: Introduction to Trial Procedures- The charge: Form of charges, Joinder of charges. Evidence in inquiries and trials, General provisions as to inquiries and trials, Provisions as to accused persons of unsound mind.

(1.5 Credit)

Unit-II: Trials and Execution Proceedings- Trial before a court of session, Trial of warrant cases by magistrates, Trial of summons – cases by Magistrates, Summary Trials, Judgement, Submission of death sentences for confirmation, Execution, suspension, remission and commutation of sentences

(2 Credit)

Unit-III: Review Procedures- Appeals, Reference and Revisions. Miscellaneous- Maintenance of wives, children and parents, Transfer of criminal cases, Irregular proceedings, Limitations for taking cognizance

(1.5 Credit)

Recommended Books:

1. Rattan Lal&Dhirajlal – Code of Criminal Procedure
2. R.V. Kelkar – Code of Criminal Procedure

Suggested Readings:

1. S.N. Mishra – Code of Criminal Procedure
2. Ganguly – Criminal Court, Practice and Procedure

   Recommendation for practical exposure:-
1. Three Moot Court on Criminal Cases.

(3 Credit)

Media and Law

Credits-8

OBJECTIVES: To help the students know about the concept of Freedom of Press and Media laws & to also enable them to get knowledge of media ethics.

UNIT –I: Democracy and Media. The Indian Constitution-Freedom of Speech and Expression and their limits.History of Press Laws in India, Rights and Duties of a citizen.Parliamentary Privileges, Contempt of court.Law of Defamation, Press and Book Registration Act, 1867.Cinematography Act 1952.Working Journalist Act, 1955.

(3 Credit)

UNIT II: Press Council Act, 1978. Indecent Represent of Women Act, 1986 PrasarBharti Act, 1990. Information Technology Act, 2000. Right to Information Act, 2005

(2 Credit)

UNIT III: Principles and Ethics of Media. Role and Responsiblities of Media. Emerging issues of Ethics in Media. Advertising and Ethics. Sensational and yellow Journalism.

(2 Credit)

Recommended Books:

1. ParanjanGuhaThakurta: Media Ethics, Trust, Fairness & objects, Oxford University Press, New Delhi.
2. B.N Ahuja: History of Press, Press Laws & Communication
3. Freedom of Press & Right to Information in India, Kanishka Publication, New Delhi.

   Recommendation for practical exposure:-

1. One Seminar on Media Law .

(1 Credit)

Public International Law

Credits-8

Objective: The objective of this paper is to acquaint the students with the basics of Public International Law and practice.

Unit – I: Introduction- Nature of International Law, Subjects of International Law, Relationship between International Law and Municipal Law, Sources of International law- Custom, Treaties, General Assembly Resolutions, General Principles, Juristic Works, Other Sources

(1.5 Credit)

Unit –II: Recognition- Theories of Recognition, De facto, De jure recognition, Implied Recognition, Withdrawal of Recognition, Retroactive Effects of Recognition, Extradition- State Jurisdiction, Customary Law basis, Treaty Law, The nature of obligation, Law of the Sea- Territorial Sea, Contiguous Zone, Exclusive Economic Zone, Continental Shelf, High Sea

(2 Credit)

Unit-III: International Organizations- UN, ICJ, IMF and IBRD, WTO, ICAO, IAEA, UNEP
(1.5 Credit)

Recommended Books:

1. Starke – Introduction to International Law
2. Oppeniheim - International Law
3. H.O.Agarwal- International Law
4. S.K.Kapoor- International Law

Suggested Readings:

1. Brownlie – Principles of International Law
2. Shaw - International Law

Recommendation for practical exposure:-

1. Two Land mark judgments- Study and Analysis on Public International Law

(2 Credit)

2. One Group Discession on Public International Law.

(1 Credit)

Offences against Child and Juvenile Offence

Credits-8

Unit 1 : Problems of conception, birth and nourishment and health of the child Legal status of child in work, Tortious liability against injuries to unborn children, Coparcenary and property rights of the unborn children, Law relating to maternity benefit and relief, Lack of legal protection of children of impoverished parentage State responsibility for the education of children Evaluation of the efforts of the State towards the provision of education to children, Pre-primary and nursery education – elementary education, Contributions by International Organizations for elementary education – UNESCO, UNICEF. Legal Control of Child Labour Regulation of the employment: protection of the health and well-being, International conventions and recommendations of the ILO, Recommendations of the National Commission of Labour, Legislation relating to factories, plantation labour, mines, merchant shipping,motor transport workers, apprentices, shop & establishments and child labour. .

(1.5 Credit)

Unit- 2 Family Relations and Child

The status of a child in matters of marriage, legitimacy, guardianship, adoption, maintenance and custody, Provisions in the statutes relating to Hindu marriages, restraint on child marriage, guardians and wards, Hindu minority and guardianship, Hindu adoptions and maintenance and in the Indian Evidence Act 1872. Child and Contractual Liability

Minors Agreements, Testimony of children, Suits by and against minors. Child and Criminal Liability Crimes committed by child; crimes committed by others in relation to children; implementation of social policy through criminal sanctions in relation to child; Variation of procedure in case of child offender; Judiciao proceedings in criminal cases relating to children; Statutoryprovisions – Sections 82, 83, 299 Exp. 3, 363A, 372 and 376 of IPC –

Suppression of Immoral Traffic Act 1956 (SITA) – penal provisions contained in Child Marriage Restraint Act 1929 as amended in 1978 – Young Persons Harmful Publications Act 1956 – The Children Act 1960 – Section; 27 of the Cr. P.C. – Reformatory Schools Act 1897 – Juvenile Delinquency Act 1986. .   (2 Credit)

Unit-3 Law and Offences Against Child

Protection of neglected children, Institutions for the protection of neglected children; Juvenile Justice Act; Juvenile delinquency : law and offences against child, Contribution by parents, licensing; Protection of girls from immoral traffic; Prevention of vagrancy and beggary. Discrimination Against Female Children Amniocenthesis, Deferred infanticide through based nutritional discrimination, Termination of pregnancy. .

(1.5 Credit)

Recommended Books:
1. Women&Children -MamtaRao

2. Women&Children-DR.S.C.Trpathi&VibhaArora

   Recommendation for practical exposure:-

1. Three Leading Cases- Study and Analysis on Offences against Child and Juvenile Offence.

(3 Credit)

French Legal System

Credits-8

Objective: The objective of this paper is to make students understand the French language so that they can easily understand the French legal system and the French terms generally used in law.

Unit-I: (1) Introduction in French
a) Verb: S'appeler
Etre
Avoir
Habiter
b) Article / Préposition: à, en, au
c) Name of some common Countries and Nationality
d) To talk about different professions

(2) How to talk about one's liking and disliking
a) Verb: Aimer
Adorer
Préférer
Detester
b) Some common vocabularies like music, cinema, theatre ……. etc.
c) Article: un, une, des / le, la, les ………
(2Credit)

Unit-II: (1) How to talk about the activities of week- end and vacations…. etc.
a) Verb: Aller
Venir
Rester
Se reposer
Regarder
b) Preposition / Article : au, à la, …….../ du, de la ………..etc.
(2) How to talk about the activities of the day:
a. Pronominal verb: Se réveiller
Se lever ……… etc.
(3) To know about time and seasons:
A) Verb: Faire

Être   (2 Credit)

Unit-III: (1) How to take permission / express one's wishes:
a.   Verb: vouloir
pouvoir
voir
b.   Pronoun: moi, toi, ……… etc.
(2) How to locate some thing / some place or some person
a. Préposition: à côté de , à gauche de , sur ………. etc.
(3) How to ask questions / Different form of questions:
a. Qu'est-cequec'est?
b. Qui est-ce?
c. Comment, pourquoi, Où, Combien ………… etc.

(4) How to describe a person:
a. Adjective: tall / short
Fat / thin
(2) How to write Informal letter

(2Credit)

Recommended Books:
  Nouveau Sans Frontières-1 (Only concerned lessons which cover the syllabus)
Suggested Readings:
    (1) Le Francais du Droit – J. L. Penfornis
    (2) Campus – Jacky Girardet& Jacques Pecheur
Recommendation for practical exposure:-
    1. Practice on French vocabularies. (2 Credit)

MOOT COURT EXERCISE AND INTERNSHIP

Objectives: **Max.Marks-100**

This course is designed to hone advocacy skills in the students. Moot Courts are simulation exercises geared up to endow students with facility in preparation of written submissions and planning, organising and marshalling arguments in the given time so as to convince the presiding officer.

The students should familiarize themselves with the various stages of trial in civil and criminal cases. They should be exposed to real court experience. Further they should imbibe the skills of client interviewing. The entire course under NGO, trial and appellate advocates, legal regulatory authorities, legislatures and parliament, other legal functionaries, market institutions, law firms, companies, local self government and other such bodies as the university may stipulate.

Course contents:

Moot Court (30 marks)

1.1 Each student shall participate in at least 3 moot courts. Each Moot court exercise shall carry 10 marks, which shall be divided as under:
  - for oral advocacy: 5 marks, and
  - Written submission: 5 marks.

1.2 The student shall make written submission on behalf of the party for whom he makes oral advocacy as assigned by the course teacher.
1.3 The written submissions for the three moot courts shall be neatly written on one side of the bond size papers and bound together with a certificate signed by the course teacher and the principal to the effect that it is the bonafide work of the concerned student.
1.4 The cover shall indicate the name of the examination, subject, seat number.

Observation of Trial (30 marks)

1.1 Each student shall attend trial in two cases one civil and one criminal in the course .
1.2 The student shall maintain a record and enter the various steps observed during their attendance on different days in the court.
1.3 The record shall be neatly written on one side of the bond size paper and bound. It will carry a certificate by the course teacher and principal to the effect that it is the bonafide work of the concerned student.
1.4 The record shall be valued for 30 marks.
1.5 The cover page shall indicate the name of the examination, subject, seat number.

Client Interviewing (30 marks)

1.1 Each student shall observe two session of client interviewing at the Lawyer's Office/Legal Aid Office and record the proceedings in a diary, which shall carry 15 marks.
1.2 Each student shall further observe the preparation of documents and court papers by the Advocate and the procedure for the filing of the suit/petition. This shall be recorded in a diary, which shall carry 15 marks.
1.3 The Diaries shall be neatly written on one side of bond size papers and bound with a certificate signed by the course teacher and the Principal to the effect that it is the bonafide work of the concerned student.
1.4 The cover page of thee diary shall indicate the name of the examination, subject, seat number, and the center code number.

Viva (10 marks)

At the end of the semester, the student shall appear for a viva voce, which shall carry 10 marks.

Method of assessment: The submissions of Moot courts shall be valued by the course teacher. The diaries relating to trial observation and client interviewing and pre-trial preparations shall be valued by the professional under whose supervision the student has completed the course .The viva shall be conducted by the Principal of the college and the course teacher.

Recommended Books:

1. A Beginners Path to Moot Court **Publisher:**Universal Law Publishing**Author:**Aggarwal Prof Nomita, MukeshAnand

2. **Moot Court , Author(s):** Dr. KailashRai**Publisher:**   Central Law Publications **Edition:**   3 Ed 2006

Private International Law

Credits-8

Unit – I: Introduction

Application and subject matter of Private International Law, Distinction with Public International Law, Characterization and theories of characterization, Concept of Renvoi, Application of foreign law.,Domicile, Jurisdiction of courts

(2Credit)

Unit – II: Family Law matters

Material and formal validity of marriage under Indian and English law ,Choice of law and jurisdiction of courts in matrimonial causes : dissolution of marriage, grounds of divorce, restitution of conjugal rights, recognition of foreign judgments.

(2Credit)

Unit – III: Adoption: Recognition of foreign adoptions, Adoption by foreign parents, Jurisdiction under Indian and English law, Indian Law relating to foreign judgment - Basis of recognition, recognition, Finality, Failure Direct execution of foreign decrees,   (2Credit)

Recommended Book:

1. Dr. ParasDiwan. Private International Law

 Statutes

Civil Procedure Code, 1973

Hindu Succession Act, 1925

The Hague Draft Convention on the Recognition and Enforcement of

Foreign Judgments in Civil and Commercial Matters

Guidelines for Inter Country Adoptions, 1994

 Suggested Readings
  i.   Cheshire

  ii.   (ii) Morris

Recommendation for practical exposure:-

  1.   Three Leading Cases- Study and Analysis on Private International Law

(2 Credit).

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

Faculty of Law and Governance
Department of Law

MASTERS OF LAW (LLM)

SESSION – 2022-24

DURATION –2YEARS/4 SEMESTER

SYLLABUS FOR:
2YEARS
(CORPORATE AND COMMERCIAL LAWS)

PROGRAM DETAIL

Name of Program	-	MASTER OF LAW (Corporate and Commercial Laws)
Program Code	-	LLM
Mode of Program	-	Semester
Duration of Program	-	2yrs/4 Semester
Total Credits of Program	-	96
Curriculum Type and Medium Choice	-	English

SYLLABUS DETAIL

I SEMESTER

S. No.	Credit	Name of Course
1	6	Law and social transformation in India
2	6	Indian Constitutional Law
3	6	Legal Theory and Human Rights philosophy
4	6	Recent Legal Developments in Contract, Business and Corporate Laws- (Viva- voce and Project Work)
Total	**24**	

II SEMESTER

S. No.	Credit	Name of Course
1	6	Legal Education and Research Methodology
2	6	Judicial Process
3	6	Banking Law
4	6	Labour Law
Total	**24**	

III SEMESTER (ECC)

S. No.	Credit	Name of Course
1	6	Law of Contractual Obligation
2	6	Insurance Law
3	6	Intellectual Property Law
4	6	Commercial Arbitration
Total	**24**	

IV SEMESTER (ECC)

S. No.	Credit	Name of Course
1	6	Company Law
2	6	Law of Carriage of Goods and Law of Insolvency
3	6	Competition Laws
4	6	Dissertation
Total	**24**	

Program Summary
LLM-2years/ 4sem
I-Sem

Nature of Course	Course Name	C	T	D & T	P
CCC	**Law and social transformation in India**	6	5	0	1
CCC	**Indian Constitutional Law**	6	5	0	1
CCC	**Legal Theory and Human Rights philosophy**	6	5	0	1
ECC	**Recent Legal Developments in Contract, Business and Corporate Laws- (Viva- voce and Project Work)**	6	5	0.5	0.5
Total Credits:		**24**	**20**	**0.5**	**3.5**

II-Sem

Nature of Course	Course Name	C	T	D & T	P
CCC	**Legal Education and Research Methodology (CCC)**	6	5	0	1
CCC	**Judicial Process(CCC)**	6	5	0	1
ECC	**Banking Law(ECC)**	6	5	0	1
ECC	**Labour Law (ECC)**	6	5	0	1
Total Credits:		**24**	**20**	**0**	**4**

III-Sem

Nature of Course	Course Name	C	T	D & T	P
ECC	**Law of Contractual Obligation**	6	5	0	1
ECC	**Insurance Law**	6	5	0	1
ECC	**Intellectual Property Law**	6	5	0	1
ECC	**Commercial Arbitration**	6	5	0	1
Total Credits:		**24**	**20**	**0**	**4**

IV-Sem

Nature of Course	Course Name	C	T	D & T	P
ECC	**Company Law**	6	5	0	1
ECC	**Law of Carriage of Goods and Law of Insolvency**	6	5	0	1
ECC	**Competition Laws**	6	5	0	1
ECC	**Dissertation**	6	5	0.5	0.5
Total Credits:		**24**	**20**	**0.5**	**3.5**

CCC represents Compulsory Core Course
ECC represents Elective Core Course
C represents number of Credit Per course
T represents theory credit
D&T represents demonstration and tutorials
P represents practical, practice and seminar

LLM 1ST YEAR
I SEMESTER
LAWANDSOCIALTRANSFORMATIONININDIA

UNIT-I

Law and Social Change: A Theoretical Perspective:

Relationship of Law with social change; Law as an instrument of social change; Law as the product of traditions & culture: Evaluation in the light of colonization & common law system; Impact of Social movements on social change.

Religion and the Law:

Religion: Meaning, relationship with law; Religion as an integrative or divisive factor; Secularism: meaning and its contribution in Indian society, Freedom of religion and non-discrimination on the basis of religion; Religious minorities and the law;

UNIT-II

Languages and the Law:

FormationoflinguisticStatesanditsimpactonpolicyingovernance;Constitutional guarantees to linguistic minorities; Language policy and the Constitution: Official languages, Multilanguage system; Non-discrimination on the ground of language.

Community and the Law:

Caste System in Indian Society; Caste: Socio-Cultural reality as a divisive and integrative factor; Non-discrimination on the ground of caste; Acceptance of caste as a factor toundopastinjustices:AnAnalysis;Protectivediscrimination:ScheduledCastes,TribesandBackwardClasses;Reservation Policy: Statutory Commission Statutory Provision;

UNIT-III

Regionalism and the Law:

Regionalism: A Divisive or an integrative factor; Concept of India as one Unit; Freedom of movement, residence and business, impermissibility of state or regional barriers; Equality in matters of employment :the sloan_son of the soil' and its practice; Admission to educational institutions: preference to residents of a State;

UNIT-IV

Modernization and the Law:

Modernization as a value: Constitution all perspective reflected in Fundamental Duties; Modernization of Social Institution through Law; Reform of Family Law; Agrarian Reform; Industrial Reforms: Free Enterprise v. State Regulation, industrialization v environmental protection; Reform of Court Processes:

i.   Criminal Law : Plea Bargaining, Compounding &Payment of Compensation to Victim

ii.   Civil Law:(ADR)Confrontation

iii.   Consensus, Mediation & Conciliation, Lok Adalats

Women, Children and the Law:

Status of Women in Indian Society; Crimes against Women; Gender injustice: forms, causes and remedies; Women's Commission; Empowerment of Women: Constitutional and other legal provisions; Child Labour; Sexual Exploitation; Adoption, maintenance and related problems; Child and Education;

UNIT-V

Alternative approaches to Law:

Jurisprudence of Sarvodaya, Gandhiji, Vinoba Bhave, Jai Prakash Narain; Socialist thought on Law & Justice: An enquiry through Constitutional debates on the right to property; Indian Marxist Critique of Law &Justice; Naxalite movement: Causes &Cure;

SUGGESTEDREADINGS:

I.   Agnes,Flavia, Lawand Gender Inequality: The Politics of Women's Rights in India(1999),Oxford.
II.   D.D.Basu, Shorter Constitution of India(1996),Prentice–Hall of India(P)Ltd.,New Delhi.
III. H.M.Seervai,Constitutional Law of India(1996),Tripathi.
IV.   India Law Institute, Law and Social Change: Indo-American Reflections, Tripathi(1988)
V.   J.B. Kripalani, Gandhi: His life and Thought,(1970)Ministry of Information and Broadcasting,
VI.   M.P.Jain,Outlines of Indian Legal History,(1993),Tripathi,Bombay
VII. Manushi,A Jornal about Women and Society.
VIII. Marc Galanter (ed.),Law and Society in Modern India(1997)Oxford.
IX.   Robert Lingat, The Classical Law of India(1988),Oxford.
X.

Indian Constitutional Law

UNIT-I

Making of the Constitution :Demand for a Constitution framed by a Constituent Assembly; The Cripps' offer of 1942; The Wavell Plan of 1945; The Cabinet Mission Plan, 1946; The Mountbatten Plan, 1947; The Indian Independence Act, 1947; Constituent Assembly in India and framing of the Constitution; Formation of the Constituent Assembly of India; The issues before the Constituent Assembly; Passing of the Constitution; Dr. B. R. Ambedkar's contribution in the making of the Constitution; Date of Commencement of the Indian Constitution; Concepts of Constitutional Law and Constitutionalism; Forms and characters of various models of Constitution; Salient features of the Constitution of India;

UNIT-II

Preamble-Meaning of the Preamble; Object, Purpose and Scope of the Preamble; Contents of the Preamble; Utility of Preamble in interpretation of the Constitution; Whether Preambleis part of the Constitution? Citizenship (Articles5-11) including grelevant provisions of Citizenship Act,1955 (Sections3– 10); Union & State Executive (Articles 52-78 & 152-167); Union Judiciary, State Judiciary& Subordinate Judiciary

(Articles 124-147 & 214-237); Writs (Article 32); Union and its Territory(Articles1-4);Union & State Legislature(Article79-123 &168-213);

UNIT-III

Legislative Relations between Union and States (Articles245-255);State: Creation and Demand of new states; Need for widening the definition of State in the wake of liberalization; Accountability of State: Joint Parliamentary Committee & Public Account Committee; Emergency Provisions (Articles 352-360); Amendment of the Constitution (Article 368) with special reference to the Basic Structure Theory. Temporary provision (Article370): Reorganization of Articles 370 and 35-A by the Constitution (Application to Jammu and Kashmir) Order 2019 and Re-Organization of Jammu and Kashmir through The Jammu And Kashmir Reorganization Act, 2019. (Basic Concepts and Future Effects);

UNIT-IV

Fundamental Rights; General(Articles12&13);Right to Equality(Articles14-18);Right to Freedom (Article 19); Fundamental Duties (Article 51A); Right to Freedoms (Articles 20-22)Right against Exploitation (Articles 23 & 24); Freedom of Religion (Articles 25-28);Democratic Process-Grass Root Democracy: Democratic Decentralization and Local Self Government; Election: Mechanism and Procedure; Election Commission: Constitution and Status; Electoral Reforms: Transparency, Free, fair and fearless election; Coalition Government, Stability, Durability ;Corrupt Practice; Nexus of politics with criminals and the business;

UNIT-V

Cultural and Educational Rights (Articles 29 & 30); Right to property as constitutional right(Articles 31A-31D & 300A); Right to Constitutional Remedies (Articles 32- 35A); Directive Principles of State Policy (Articles 36-51); Trade, Commerce and Intercourse within the Territory of India (Articles 301-307); Safeguards to Civil Servants (Articles 309-311); Public Service Commission's (Article315-323);Election Commission (Articles324-329);

SUGGESTEDREADINGS:

I. Bakshi,P.M.:ConstitutionofIndia-8thEdition,Universal LawPub.,2017.
II. Basu,D.D.:Introduction totheConstitutionofIndia(English& Hindi)
III. Basu,DurgaDas:ShorterConstitutionofIndia,13thEdition,Wadhwa,2012.
IV. ConstitutionofIndia asamendedupto-date
V. Constitution(ApplicationToJammuAndKashmir)Order2019
VI. GranvilleAustin,WorkingofaDemocraticConstitution-TheIndianExperience,OxfordUniversityPress.
VII. H.M.Seervi,Constitutional LawofIndia,N.M.Tripathi.
VIII. H.R.Khanna,MakingofIndia'sConstitution,EasternBookCo.,LucknowHarperCollinsPublication,India. 2019.
IX. Jain,M.P.:IndianConstitutional Law-5thEdition,Wadhwa, 2015.
X. KashyapSubhashC.,ConstitutionalLawofIndia,UniversalLawPublishingCo.Pvt.Ltd.,2015
XI. M.P.Singh,V.N.Shukla'sConstitutionofIndia, EasternBookCompany, (2013).
XII. Seervai,H.M.:ConstitutionalLawofIndia-4thEdition,UniversalLawPublishingCo.Pvt. Ltd., 2012.
XIII. TheJammuandKashmirReorganisationAct,2019
XIV. VariousAmendmentsmadetotheConstitutionofIndia

LEGALTHEORYANDHUMANRIGHTSPHILOSOPHY

UNIT-I

Positivism- Relation between Law and Morality, Analytical Positivism, Imperative Theory of Law, Pure theory of Law, the concept of Law.

UNIT-II

Historical and Sociological approach to Law: Theory of Volkgeist, Anthropological approach to law, purpose theory, living law theory, social engineering;

UNIT-III

Post sociological approach realism, Justice Cardozo: Judicial process, Justice Holmes, critical legal studies, Feminist Philosophy;

UNIT-IV

Justificatory theories in shaping the concept of Human Rights, Theology, Natural law and natural rights, Utilitarianism-Right based theory and collective rights;

UNIT-V

Modern theories of Human Rights, Rawls Theory of Justice: Nozick - Ronald Dwork in, Right to Solidarity, Global Justice: meaning and application;

SUGGESTEDREADINGS:

I.   Bodenheimer– Jurisprudence: ThePhilosophyandMethod of Law
II.   Friedman–LegalTheory
III.   Rawls:TheoryofJustice
       U.Baxi,TheCrisisoftheIndianLegalSystem(1982),VikasPublishingHouse,NewDelhi.
IV.   UpendraBaxi,"Law,DemocracyandHumanRights":5 Lokayan Bulletin4(1987)
V.   V.D.Mahajan–Jurisprudence

Paper4-

Recent Legal Developments in Corporate laws- (Viva- voce and Project Work)

Here the students are asked to go out of the class room and library and make an empirical study of a problem which has social, economic, moral or political dimension. Field data can be collected through any model of data collection. The results are to be assessed internally by a designated faculty member who are engaging LL.M. Classes regularly;

SEMESTER II

LEGAL EDUCATION ANDRESEARCHMETHODOLOGY

UNIT-I

Legal Education: Methods & Objective:

Lecture Method of Teaching: Merits and Demerits; The problem method; Discussion methodanditssuitabilityatpostgraduatelevelteaching;Theseminarmethodofteaching;Examination system and problems in evaluation external and internal assessment; Student participation in law school programmes, organizations of seminars, publication of journal and assessment of teachers; Clinical legal education – legal aid, legal literacy, legal survey and law reform;

UNIT-II

Research Method:

Socio-Legal Research; Doctrinal and non-doctrinal research; Relevance of empirical research; Induction and deduction; Identification problem of research – what is a research problem; Survey of available literature and preparation of bibliography; Legislative materials including subordinate legislation, notification and policy statements;

UNIT-III

Research Materials:

Decisional materials including foreign decisions; methods of discovering the -rule of the case‖; Juristic writings: A Survey of juristic literature, its relevance in selection of problems in India and foreign periodicals; Compilation of list of reports or special studies conducted relevant to the problems; Formulation of the Research Problem, hypothesis; Devising tools and techniques for collection of data; Methods for the collection of statutory and case material and juristic literature; Use of historical and comparative research material; Use of observation studies; Use of the Case Studies; Use of questionnaires/interview; Sampling procedures, design of sample, types of sampling to be adopted; Use of scaling techniques; Jurimetrics;

UNIT-IV

Data Collection:

Computerized Research: A study of legal research programmes such as lexis and West law coding; Classification and Tabulation of Data: use of cards for data collection, Rules for tabulation, Explanation of tabulated data; Analysis of Data–Qualitative and Quantitative;

UNIT-V

Report Writing; Research report & techniques of writing research work; Citation rules and modes of legal writing, Case Analysis, Impact of Decisions of the Court;

SUGGESTEDREADINGS:

I. HighBrayal,NigelDuneanandRichardCrimes,ClinicalLegalEducation:ActiveLearninginyour LawSchool, (1998)Blackstone PressLimited,London.
II. S.K.Agrawal(Ed.), LegalEducationin India(1973),Tripathi,Bombay.
III. M.O.Price,H.BitnerandBysiewiez,EffectiveLegalResearch(1978)
IV. WilliamJ.GradeandPaulK.Hatt,MethodsinSocialResearch,McGraw-HillBook
V. Company,London
VI. H.M.Hyman,InterviewinginSocialResearch(1965)

JUDICIALPROCESS

UNIT-I

Nature of Judicial Process:

Judicial process as an instrument of social ordering; Judicial process and creativity in Law: Common law model, legal Reasoning and growth of law, change and stability; The tools and techniques of judicial creativity and precedent; Legal development and creativity through legal reason in gender statutory and codified system.

UNIT-II

Special dimensions of Judicial Process in Constitutional Adjudication:

Notion of Judicial Review; Role in constitutional adjudication: various theories of judicial role; Tools and techniques in policy making and creativity in constitutional adjudication; Varieties of judicial and juristic activism; Problems of account ability & Judicial Lawmaking.

UNIT-III

Judicial Process in India:

India n debate on the role of judges and on the notion of judicial review; The- independence‖ of judiciary and the-political‖nature of judicial process; Judicial activism and creativity of the Supreme Court: the tools and techniques of creativity-Judicial process in pursuit of constitutional goals and values: New dimensions of judicial activism and structural challenges; Institutional liability of courts its scope and limits.

UNIT-IV

The Concept of Justice:

The concept of justice and Dharma in Indian thought; Dharma as the foundation of legal ordering in Indian thought; The concept and various theories of justice in the western thought; Various theoretical bases of justice: The liberal contractual tradition, the liberal utilitarian tradition and the liberal moral tradition.

UNIT-V

Relation between Law and Justice:

Equivalence Theories – Justice as nothing more than the positive law of the stronger class; Dependence theories: for its realization, Justice depends on law, but justice is not the same as law; The independence theories of justice as a means to an end, the relationship in the context of the Indian Constitutional ordering; Analysis of selected cases of Supreme Court where the Judicial Process can be seen as influenced by theories of Justice.

SUGGESTEDREADINGS:
I. A.S.Anand,JudicialReview–JudicialActivism–NeedforCaution,JournalofIndianLawInstituteP. 149 (2000).
II. AmartyaSen,_IdeaofJustice',AllenLane&HarvardUniversityPress,2009
III. Cordozo_TheNatureofJudicialProcess(1995).UniversalLawPublishingCo.,NewDelhi
IV. HenryJ.Abraham,TheJudicialProcess(1998),OxfordUniversityPress
V. J.Stone.LegalSystemandLawyer'sReasoning(1999),UniversalLawPublishingCo.,NewDelhi
VI. J.Stone,PrecedentandtheLaw:DynamicsofCommonLawGrowth(1985),Butterworths.
VII. JuliusStone.TheProvinceandFunctionofLawCh.1,PP8-16,(2000)UniversalLawPublishingCo., NewDelhi
VIII. RajeevDhavan.TheSupremeCourtofIndia–ASocio-LegalCritiqueofitsJuristicTechniques(1977), Tripathi– Bombay.
IX. S.P.Sathe,JudicialActivisminIndia:TransgressingbordersandEnforcingLimits,OxfordNewDelhi. (2002

BANKINGLAWS

UNIT-I

The Banking Regulation Act, 1949 As amended by The Banking Regulation (Amendment)Act, 2017:, Objectives; Definition, Concept, Key Features of the Act and Amendments; Preliminary; Business of Banking Companies; Control Over Management; Supersession of Board of Directors of Banking Company; Prohibition of Certain Activities In Relation To Banking Companies; Acquisition of The Undertakings of Banking Companies In Certain Cases; Suspension of Business And Winding-Up of Banking Companies ; Special Provisions For Speedy Disposal of Winding Up Proceedings; Provisions Relating To Certain Operations of Banking Companies; Miscellaneous and Judicial Responses;

UNIT-II

Reserve Bank of India Act,1934,(As amended by the FinanceAct,2019):

Need,Importance,Objectives;Definition,Concept,KeyFeaturesoftheActandAmendments;PreliminaryIncorporation,Capital,ManagementAndBusiness;CentralBankingFunctions,CollectionAndFurnishingOfCreditInformation;ProvisionsRelatingTo Non-Banking Institutions Receiving; Deposits and Financial Institutions; Prohibition OfAcceptanceOfDepositsByUnincorporatedBodies;RegulationOfTransactionsInDerivatives, Money Market Instruments, Securities, etc.; Joint Mechanism; Monetary Policy; General Provisions; Penalties and Judicial Responses

UNIT-III

The Deposit InsuranceAndCreditGuaranteeCorporationAct,1961:

Need, Importance, Objectives; Definition, Concept, Key Features of the Act; Preliminary; Establishment and Management of the Deposit Insurance and Credit Guarantee Corporation; Registration of Banking Companies and Co-Operative Banks as Insured Banks and Liability of Corporation to Depositors; Credit Guarantee Functions; Funds, Accounts and Audit; Miscellaneous and Judicial Responses;

UNIT-IV

The State Bank of India Act,1955:

Need, Importance, Objectives; Definition, Concept, Key Features of the Act; Preliminary;IncorporationandShareCapitalofStateBank;TransferofUndertakingofTheImperialBank To State Bank; Shares; Management; Business of The State Bank Funds, Accounts And Audit; Miscellaneous and Judicial Responses;

UNIT-V

Negotiable Instruments Act, 1881 Including The Negotiable Instruments (Amendment) Act,2015and The Negotiable Instruments (Amendment)Act, 2018:

Need, Importance, Objectives; Definition, Concept, Key Features of the Act and Amendments and Judicial Responses;

SUGGESTEDREADINGS*:

- M.L. Tannan, Tannan's Banking Law and Practice in India (1997) India Law House,NewDelhi,2 Volumes.
- ICSI, Banking and Insurance Law and Practice, Institute of Company Secretaries ofIndia, Taxmann Publishers,2010.
- K.C. Shekhar, &LekshmiShekhar, Banking Theory and Practice, Vikas PublishingHouse,19th edition, 2005.
- JyotsanaSethi&NishwarBhatia,ElementsofBankingandInsurance,PHIPublishers,2nd edition, 2013.

LABOUR LAWS

Unit: I

Collective bargaining, Condition of services and Discipline in Industries:

The concept, Bargaining process, Negotiation Techniques of pressurization: strike and lockout, go-slow, work to rule, gherao\bundh Doctrine of hire and fire -history of management's prerogative.

Fairness in disciplinary process : Punishment for misconduct -meaning of misconduct

Unit: II

State Regulation of Industrial Relations

Methods of regulation: Constitutional Provisions, Provisions under the ID Act-Recognition of mutual arrangements, Assistance to bipartite settlement: conciliation, voluntary arbitration, formulation of standing orders.

UNIT III

State prescription of machinery: reference for adjudication (the political overtones), the adjudicatory mechanisms (How do they differ from courts?), award and its binding nature, judicial review of awards.

State prescription of standards in lay off, strike, lockout, retrenchment, closure and transfer of undertakings Unfair labour practices.

Unit: IV

Health and Safety :

Obligations for health and safety of workmen -legislative controls: factory, mines and plantations, Employer's liability, Employees' Compensation, Employee's State Insurance

Employment of young persons: prohibition of employment of children, regulation of employment of young persons, Woman and labour force

Unit: V

Labour Welfare and Remuneration

Welfare provided by the employers and through bipartite agreements and by statutory prescription under different laws, Provident fund and family pension. Gratuity, bonus and Insurance, Equal remuneration law, maternity benefits, protective provisions for women under factories, plantations and mines laws

References :

John Bowers and Simon Honey ball, Text Book on Labour Law (1996), Blackstone, London

Srivastava K.D., Commentaries on Payment of Wages Act 1936 (1998), Eastern, Lucknow

Srivastava K.D., Commentaries on Minimum Wages Act 1948 (1995), Eastern, Luknow

SEMESTER III

LAW OF CONTRACTUAL OBLIGATIONS

UNIT-I

Genesis, Philosophy and Importance of Contracts in a Commercial Developing Society; Subjective and Objective Theories; Role of Intention and Consent; Lassize-Faire Theory and its Dilution; Doctrine of Natural Justice and Contractual Obligations; Doctrine of Estoppel, Doctrine of Restitution, Doctrine of Unjust Enrichment; Formation of Contract: Agreement: Proposal and Acceptance; Essential Elements, Communication and Revocation, Proposal and Invitation to Proposal, Standing Proposals, Tenders and Auction Sale; Contract, Role of Intention to Create Legal Relations, Standards Forms of Contract; Judicial Interpretations; Position in India; Consideration: Nudum Pactum; Its Need, Meaning and Essential; Adequacy of Consideration, Privity of Contract, its Exceptions and Consideration; Past, Executed and Executory Consideration, Consideration and Promissory Estoppel;

UNIT-II

Essentials of Valid Contract; Competent Parties; Position of Minor in Creating Contractual Obligation, Consequences of Minor's Agreement and Ratification; Contract by a Person of Unsound Mind – Legal Effects; Other Legal Disabilities; Free Consent; Meaning and Scope; Vitiating Elements; Coercion, Fraud, Misrepresentation, Undue Influence and Mistake, Distinction between Fraud and Innocent Misrepresentation, Coercion and Duress, Mistake of Law and Mistake of Fact, Common, Mutual and Unilateral Mistake, Remedies Available When Agreement Is Vitiated By Mistake; Essentiality of Consideration with Exceptions; Legality of Objects and Consideration;

UNIT-III

Unlawful Consideration and Objects; Concept of Immoral and Public Policy, Heads against Public Policy; Unlawful Agreements and their Effects; Void Agreements, Agreement in Restraint of Marriage, Agreement in Restraint of Trade, Agreement in Restraint of Legal Proceedings, Uncertain Agreement and Wagering Agreements; Void and voidable contracts: their Effects Contingent Contract: Meaning and Scope, Reciprocal Promises; Discharge of Contract: Meaning and Modes of Discharge; Performance and Tender; Place and Time of Performance, Time as Essence of Contract, Performance of Joint Promises; Discharge by Agreement; Novation, Remission of Performance, Accord and Satisfaction; Discharge byImpossibilityofPerformanceandFrustration:NatureandScopeoftheDoctrineofImpossibility,SpecificGrounds of Impossibility;

UNIT-IV

Restitution; Quasi – Contracts or Certain Relation Resembling Those Created by Contract; Breach of Contract and Remedies; Meaning of Breach and Anticipatory Breach; Damages; Meaning and Nature, Kinds, Rule in Hadley. Baxendale: Remoteness of Damages; ContractofIndemnity:DefinitionandNature,DistinctionbetweenIndemnityandGuarantee,RightsoftheIndemnityHolder;ContractofGuarantee–DefinitionandScope,SpecificandContinuing Guarantee, Creditors Right against Principal Debtor and Surety, Discharge of Surety, Surety's Rights against the Principal Debtor and Co-surety. Principal of Contribution by Co-Surety

UNIT-V

Bailment: Definition and Essential Features, Bailment for Regard and Gratuitous Bailment, Right and Duties of Bailor and Bailee; Finder of Lost Goods; Rights and Duties of Finder; Rights and Liabilities of Owner; Pledge: Definition, Nature and Scope; Who can Pledge, Rights and Duties of Pawn or and Pawnee; Kinds of Agents: Factory, Brokers, Auctioneers, Del- Credere Agents, etc.; Agency: Nature, Distinction from Other Transactions; Contractual Basis of Agency; Modes of Creation of Agency – Express, Implied, Ratification by

Operation of Law; Scope of Agent's Authority, Rights and Liabilities of the Agent as Against Principal and Third Party; Rights and Liabilities of Principal and Third Party as against each other and as against Agent; Delegation by Agent; Sub Agent and Substituted Agent; Distinction and Legal Effects; Termination of Agency, Modes of Termination, Agency Coupled with Interest;

SUGGESTEDREADINGS*:

- Anson,LawofContract,OxfordUniversityPress,NewYork,2016
- AtiyahP.S.:An IntroductiontotheLawofContract,ClarendonLawSeries,OUP,2006
- AvtarSingh,LawofContract,12thed.,EasternBookCompany,Lucknow,2019(Reprint)
- AvtarSingh,LawofContract,(Hindi)12thed.,EasternBookCompany,Lucknow,2019(Reprint)
- JillPoole,TextbookonContractLaw,OxfordUniversityPress,NewYork,14thed.2019
- Mulla, IndianContractAct,LexisNexis,NewDelhi,15th Ed.2015
- NeilAndrews,ContractLaw,CambridgeUniversityPress,2011
- Pollock&Mulla:Indian ContractandSpecificReliefAct,LexisNexis2019

INSURANCE LAWS

UNIT-I

Historical Development of Insurance Law:

Origin & History of Insurance in India, Definition & Working of Insurance, The Insurance Act, 1938 as amended by the Insurance Laws (Amendment) Act, 2015:Need, Importance, Objectives; Definition, Concept, Key Features of the Act and Amendments Preliminary; Provisions Applicable To Insurers; Insurance Association of India, Council of the Association and Committees There of; Tariff Advisory Committee and Control of Tariff Rates; Solvency Margin, Advance Payment Of Premium And Restrictions on The opening of A New Place of Business; Provident Societies; Insurance Co-Operative Societies; MutualInsuranceCompaniesandCo-OperativeLifeInsuranceSocieties;Re-Insurance;Miscellaneousand Judicial Responses;

UNIT-II

InsuranceRegulatoryandDevelopmentAuthorityofIndiaAct,1999:

Need, Importance, Objectives; Definition, Concept, Key Features of the Act; Preliminary; Insurance Regulatory and Development Authority of India; Transfer of Assets, Liabilities, Etc., of Interim Insurance Regulatory Authority; Duties, Powers and Functions of Authority; Finance, Accounts and Audit; Miscellaneous and Judicial Responses;

UNIT-III

The Life Insurance Corporation Act,1956 Including The Life Insurance Corporation (Amendment) Act, 2011:Need, Importance, Objectives; Definition, Concept, Key features of the Act/Amendment, Preliminary; Establishment of Life Insurance Corporation of India; Functions of the Corporation; Transfer of Existing Life Insurance Business to The Corporation; Management ;Finance, Accounts and Audit; Miscellaneous and Judicial Responses;

UNIT-IV

The Public Liability Insurance Act,1991:

Need, Importance, Objectives; Definition, Concept, Key Features of the Act and Judicial Responses; The Marine Insurance Act, 1963: Marine Insurance; Insurable Interest; Insurable Value; Disclosure And Representations; The Policy; Double Insurance; Warranties, Etc.; The Voyage; Assignment of Policy; The Premium; Loss and Abandonment; Partial Losses(Including Salvage and General Average and Particular Charges); Measure of Indemnity; Rights of Insurer on Payments; Return of Premium; Supplemental Provisions and Judicial Responses;

UNIT-V

Motor Vehicles Act 1988(Including The Motor Vehicles Amendment Act, 2019):

Need, Importance, Objectives; Definition, Concept, Key Features of the Act/Amendment, Fault and No-Fault Liability of Driver and Owner; Concepts regarding Third Party; Driving Licenses; National and State Register of Driving Licenses; National Transportation Policy; Offences and Penalties, Powers and Jurisdiction of a Motor Accidents Claims Tribunal and Judicial Responses;

SUGGESTEDREADINGS*:

- I.C.S.I., Banking and Insurance Law and Practice, Institute of Company Secretaries ofIndia, Taxmann Publishers,2010.
- Jain,J.N.,andR.N.Jain,ModernBankingandInsurancePrinciplesandTechniques,JainBook Depot., 2015.
- JyotsanaSethi&NishwarBhatia,ElementsofBankingandInsurance,PHIPublishers,2ndedition, 2013.
- Murthy,K.S.N.andV.S.Sarma,ModernLawofInsuranceinIndia,LexisNexis,2013.
- Rejda,G.,Principlesofriskmanagementandinsurance.(12thedition.),Pearson,2014.

INTELLECTUAL PROPERTY LAWS

UNIT-I

Introduction to Intellectual Property:

Theories of Intellectual Property (Basic Concepts), Justifications for the Protection of Intellectual Property; Kinds of Intellectual Property Rights:(Basic Overview) Copyright and Related Rights, Patents, Trademarks, Design, Plant Varieties, Farmer's Rights, Traditional Knowledge, Traditional Knowledge Digital Library, Convention on Biological Diversity, Trade Secrets, The Semiconductor Integrated Circuits Layout-Design;

UNIT-II

International Institutions and Basic International Conventions related to Intellectual Property: (Basic Overview) International Copyright Protection: Berne Convention for the Protection of Literacy and Artistic Works 1886; Rome Convention for the Protection Procedures of Phonograms and Broadcasting Organizations 1961; International Protection of Industrial Property Rights: Paris Convention for the Protection of Industrial Property,1883; International Agencies and Intellectual Property:(Basic Overview)World Intellectual Property Organization (WIPO); WIPO Copyright Treaty (WCT),WIPO Performances and Phonograms Treaty(WPPT);

UNIT-III

The World Trade Organization (WTO):

Introduction to International trade and the law of the WTO, Sources of WTO Law, Basic rules and principles of WTO Law; Historical Background; Membership; Institutional Structure; WTO Dispute Settlement; TRIPS Agreement: IPR's covered by TRIP's; Indian response to the TRIP's The Patents Act, 1970:History, Enactment and Implementation etc.; Interpretation Clause; Inventions Not Patentable; Applications for Patents; Publication and Examination of Applications; Opposition and Anticipation; Grant of Patents and Rights Conferred Thereby; Restoration, Surrender and Revocation of Patents; Register of Patents; Patent Office and Its Establishment; Working of Patents, Compulsory Licenses and Revocation; Landmark Cases; Recent Developments in the Law(with Amendments, if any);

UNIT-IV

The Trade marks Act, 1999:

History, Enactment and Implementation etc.; Interpretation Clause; Kinds of Trademarks; The Register and Conditions for Registration; Procedure for and Duration of Registration; Effect of Registration; Use of Trademarks and Registered Users; Collective Marks and Certification Trademarks; Landmark Cases; Recent Developments in the Law (with Amendments, if any);

The Geographical Indication of Goods (Registration and Protection) Act,1999:History,Enactment and Implementation etc.; Interpretation Clause; The Register and Conditions for Registration; Procedure for and Duration of Registration; Effect of Registration; Special Provisions relating to Trademarks; Landmark Cases; Recent Developments in the Law (with Amendments, if any);

UNIT-V

The Copyright Act, 1957:

History, Enactment and Implementation etc.; Interpretation Clause; Copyright Office and Copyright Board; Copyright; Ownership of Copyright and the Rights of the Owner; Term of Copyright, Licences; Rights of Broadcasting Organization and of Performers; Registration of Copyright; Infringement of Copyright; Landmark Cases; Recent Developments in the Law (with Amendments, if any) The Designs Act, 2000: History, Enactment and Implementation etc.; Interpretation Clause; Registration of Designs; Copyright in Registered Designs; Legal Proceedings; Landmark Cases; Recent Developments in the Law (with Amendments, if any);

SUGGESTED READINGS:

- Ahuja,V.K.,LawofCopyrightandNeighbouringRights,(2007),NewDelhi,LexisNexis
- DevGangjee,RelocatingtheLawofGI, Cambridge UniversityPress,2012
- Dr.J.P.Mishra,AnIntroductiontoIntellectualPropertyRights(INHINDI),CentralLawPublications,2013
- ElizabethVerkey, LawofPatents,Eastern Book Company,2ndEdition,2012
- ElizabethVerkey, LawofPlantVarieties Protection,Eastern BookCompany,200
- FerozAliKhader,TheLawofPatents-WithaSpecialFocusonPharmaceuticalsinIndia,LexisNexis,2nd Edition,2011
- GyanvatiDhakad,BaudhikSampadaVidhiyan(IntellectualPropertyLaws-Hindi)(Hindi,Paperback,), CentralLawPublications,Ed.3rd, 2018

COMMERCIAL ARBITRATION

Unit:I
Historical Background of the Arbitration
Existing justice delivery system in India: effectiveness and weaknesses, Reform in the legal system for achieving effective and speedy resolution of disputes, Historical background of the arbitration & arbitration agreements.

Unit:II
Conduct of Arbitral Proceeding
Composition & jurisdiction of arbitral tribunal, Conduct of arbitral proceeding, Making of arbitral award and termination of proceedings.

Unit:III
Arbitral Award and Appealable Awards
Recourse against arbitral award, Finality & enforceability of arbitral award, Appealable orders and miscellaneous provisions.

UNIT:IV
Foreign Arbitral Awards
Provisions regarding foreign awards and their enforcement.

UNIT:V
International Commercial Arbitration
Meaning and development
Types of laws applicable in ICA
Autonomy of Arbitration Agreement
Recognition and enforcement

Books recommended:
Acharya N.K; Law Relating to Arbitration and ADR; Asia Law House
Bansal, Ashwini Kr.; Arbitration: Procedure and Practice; Lexis Nexis
Arbitration and Conciliation Act, 1996 Malik, S.B; Commentary on Arbitration and Conciliation Act; Universal
.Mustill, Michael J.; Commercial Arbitration; Lexis Nexi

SEMESTER IV

COMPANY LAW

Unit I:

Basic Concepts: Corporate Personality, Memorandum and Article of Association.

Share Capital: Meaning, Alteration, Pricing, Issue and allotment, transfer and transmission,

Reduction of share capital , by Back dividend industrials production.

Unit II

Borrowing powers and raising funds incorporate loans and investment and given of guarantees

and charges, Director and Managerial Personnel, Company Meetings Account and Audit report and director

report Majority rules and production and operation of mismanagement

Unit III

Inspection and Investigation

Reconstruction amalgamation, merger and takeover

Rehabilitation and binding of companies

Unit IV

National Company Law Tribunal and producer companies

Co-operative movement and Co-operative Societies Act.

UNIT V

Corporate governance and SEBI Regulations

Social responsibility of Company

Suggested Readings:

'The Companies Act 2008: an overview of a few of its core provisions' (2010) 22 *SA Mercantile Law Journal* 157. [sabinet.co.za]

'A practical guide to the implications of the new Companies Act – classification of companies' (Mar 2010) *De Rebus* 39.

Jager 'A practical guide to the implications of the new Companies Act (10) – transitional provisions' (Dec 2010) *De Rebus* 47.

'The impact of South African company law reform on close corporations: Selected issues and perspectives' 2010 *ActaJuridica* 456. [abstract][sabinet.co.za]

'The impact of the National Credit Act on specific company transactions' (2009) 21 *SA Mercantile Law Journal* 486. [sabinet.co.za]

'Company law (including close corporations)' 2008 *Annual Survey of South African Law* 144. [sabinet.co.za]

LAW OF CARRIAGE OF GOODS AND LAW OF INSOLVENCY

UNIT I

Nature and kinds of carriers

1. Introduction
2. Essentials
3. Nature
4. Kinds of carriers

UNIT II

Carriage of goods by land

1. Introduction
2. Rights of a common carrier
3. Duties of a Common carrier
4. Liabilities of A common carrier
5. Liabilities Regarding railway administration
6. Compensation

UNIT III

Carriage of goods by sea

1. Introduction
2. Contract of affreightment
3. Kinds of contract of affreightment
4. Duties of a carrier by sea
5. Liabilities of a Carrier by sea

UNIT IV

Carriage of goods by AIR

1. Introduction
2. (ii)Documents of carrier
3. (iii)Liability of a carrier by AIR
4. (iv)Rules regarding damages

UNIT V

Law of Insolvency

1. (i)Nature of insolvency proceedings
2. (ii)Procedure of insolvency procedure

    Debts and property of insolvency

    Discharge of an insolvent from the state of insolvency

Suggested Readings

- ❖ P.P.Gogna –Mercantile Law
- ❖ Avtarsingh – Mercantile Law
- ❖ Nolakhav Mercantile Law
- ❖ KailashRai- Mercantile Law

COMPETITION LAWS

Unit:I

Introduction

a. Basic economic and legal principles

b. Restraint of Trade under Indian Contract Act

c. Monopolistic Trade Practices

d. Restrictive Trade Practices

Unit:II

Development of law from MRTP to Competition Act 2002

a. Aims, Objects and Salient features

b. Comparison between MRTP Act and Competition Act

c. Anti-Competitive Agreement

d. Abuse of Dominant Position

e. Combination

f. Protection of consumers

Unit:III

Competition Commission Of India

a. Structure and function of CCI

b. Regulatory role

Unit:IV

Competition Appellate Tribunal

a. Composition, Functions, Powers and Procedure

b. Award Compensation

c. Power to punish for contempt

d. Execution of ordes

Unit: V

  Other Related Issues:
 a)   Competition Advocacy,
 b)   Advertisement and Competition Law,
 c)   IPRs and Competition,
 d)   Educational Initiative and other Contemporary issues

Select Bibliography

(With van Rompuy, Ben.) Economic Efficiency: The Sole Concern of Modern Antitrust Policy?: Non-Efficiency Considerations under Article 101 TFEU. Alphen aan den Rijn: Kluwer Law International, 2012.

Evolution of U.S. Antitrust Enforcement. Northhampton, ME: Edward Elgar, 2011.

(With Gavil, Andrew I., and Jonathan B. Baker.) Antitrust Law in Perspective: Cases, Concepts and Problems in Competition Policy. 2nd edition. St. Paul: Thomson West, 2008.

(With Gellhorn, Ernest and Stephen Calkins.) Antitrust Law and Economics in a Nutshell. 5th ed. St. Paul: West Publishing Co., 2004.

Evaluating the Competitive Effects of Defense Industry Mergers on Research and Development. Washington, DC: Federal Legal Publications, 1996.

The Choice of Forum in Bid Protest Disputes. Washington, DC: Administrative Conference of the United States, 1995

(with Feinstein, Richard and Patrick Sheller). Antitrust Analysis and Defense Industry Consolidation. Chicago, IL: American Bar Association, Section of Public Contract Law, 1994.

(with Sullivan, E. Thomas, et al.). Nonprice Predation under Section 2 of the Sherman Act. Monograph No. 18. Chicago, IL: American Bar Association, Section of Antitrust Law, 1991.

DISSERTATION

OBJECTIVESOFTHE COURSE:

This course consists of the Dissertation which will comprise of writing a short project/thesis on a leading / recent topic in the elective branch which will test the research capabilities, aptitude and skills of the student.

Dissertation   (Written Part) Sequence of Pages: Cover Page/Certificate/Declaration/Acknowledgment/Preface/Abbreviations/TableofCases/ Contents/Main Text/Bibliography/Appendixes

Note- The Students are advised to refer to the samples but in no case it should limit the creativity in writing. All the sample pages are based on the minimum requirements of a standard dissertation as well as imaginary particulars. The standard Bluebook Citation should be followed in making the Dissertation.

Viva–Voce

The Project submitted shall be evaluated by one Internal and one External Examiner and the decision of External Examiner shall be final and binding

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

Faculty of Law and Governance
Department of Law

MASTERS OF LAW (LLM)

SESSION – 2022-24

DURATION –2 YEARS/ 4 SEMESTER

SYLLABUS FOR:
2YEARS (CRIMINAL LAWS)

PROGRAM DETAIL

Name of Program	-	MASTER OF LAW (Criminal Laws)
Program Code	-	LLM
Mode of Program	-	Semester
Duration of Program	-	2yrs/4 Semester
Total Credits of Program	-	96
Curriculum Type and Medium Choice	-	English

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

SYLLABUS DETAIL

I SEMESTER (CCC)

S. No.	Course Nature	Credit	Name of Course
1	CCC	6	Law and social transformation in India
2	CCC	6	Indian Constitutional Law
3	CCC	6	Legal Theory and Human Rights philosophy
4	ECC	6	Recent Legal Developments in Criminal Laws- (Viva- voce and Project Work)
Total		24	

II SEMESTER

S. No.	Course Nature	Credit	Name of Course
1	CCC	6	Legal Education and Research Methodology
2	CCC	6	Judicial Process
3	ECC	6	Criminology and Criminal Justice Administration
4	ECC	6	Police Law and Administration
Total		24	

III SEMESTER (ECC)

S. No.	Course Nature	Credit	Name of Course
1	ECC	6	Penology and Victimology
2	ECC	6	Privileged Class deviance
3	ECC	6	Cyber Crimes
4	ECC	6	Juvenile Delinquency
Total		24	

IV SEMESTER (ECC)

S. No.	Course Nature	Credit	Name of Course
1	ECC	6	**Law of Crimes**
2	ECC	6	**Comparative Criminal Procedure**
3	ECC	6	**International Criminal Law**
4	ECC	6	**Dissertation**
Total		24	

Programme: Masters of Law (LLM- Criminal Laws)
Duration: 2 Years (4 Semesters)

Program Summary
LLM-2years
I-Semester

Course category	Course Name	C	T	D & T	P
CCC	Law and social transformation in India	6	5	0	1
CCC	Indian Constitutional Law	6	5	0	1
CCC	Legal Theory and Human Rights philosophy	6	5	0	1
ECC	Recent Legal Developments in Criminal Laws- (Viva- voce and Project Work)	6	5	0.5	0.5
Total Credits:		**24**	**20**	**0.5**	**3.5**

II- Semester

Course category	Course Name	C	T	D & T	P
CCC	Legal Education and Research Methodology	6	5	0	1
CCC	Judicial Process	6	5	0	1
ECC	Criminology and Criminal Justice Administration	6	5	0	1
ECC	Police Law and Administration	6	5	0	1
Total Credits:		**24**	**20**	**0**	**4**

III- Semester

Course category	Course Name	C	T	D & T	P
ECC	Penology and Victimology	6	5	0	1
ECC	Privileged Class deviance	6	5	0	1
ECC	Cyber Crimes	6	5	0	1
ECC	Juvenile Delinquency	6	5	0	1
Total Credits:		**24**	**20**	**0**	**4**

IV- Semester

Course category	Course Name	C	T	D & T	P
ECC	Law of Crimes	6	5	0	1
ECC	Comparative Criminal Procedure	6	5	0	1
ECC	International Criminal Law	6	5	0	1
ECC	Dissertation	6	5	0.5	0.5
Total Credits:		**24**	**20**	**0.5**	**3.5**

CCC represents Compulsory Core Course
ECC represents Elective Core Course
C represents number of Credit Per course
T represents theory credit
D&T represents demonstration and tutorials
P represents practical, practice and seminar

LLM 1ST YEAR
I SEMESTER

LAW AND SOCIAL TRANSFORMATION IN INDIA

UNIT - I

Law and Social Change: A Theoretical Perspective:

Relationship of Law with social change; Law as an instrument of social change; Law as the product of traditions & culture: Evaluation in the light of colonization & common law system; Impact of Social movements on social change.

Religion and the Law:

Religion: Meaning, relationship with law; Religion as an integrative or divisive factor; Secularism: meaning and its contribution in Indian society, Freedom of religion and non- discrimination on the basis of religion; Religious minorities and the law;

UNIT - II

Languages and the Law:

Formation of linguistic States and its impact on policy in governance; Constitutional guarantees to linguistic minorities; Language policy and the Constitution: Official languages, multi language system; Non-discrimination on the ground of language.

Community and the Law:

Caste System in Indian Society; Caste: Socio-Cultural reality as a divisive and integrative factor; Non-discrimination on the ground of caste; Acceptance of caste as a factor to undo past injustices: An Analysis; Protective discrimination: Scheduled Castes, Tribes and Backward Classes; Reservation Policy: Statutory Commission Statutory Provision;

UNIT - III

Regionalism and the Law:

Regionalism: A Divisive or an integrative factor; Concept of India as one Unit; Freedom of movement, residence and business, impermissibility of state or regional barriers; Equality in matters of employment: the slogan son of the soil' and its practice; Admission to educational institutions: preference to residents of a State;

UNIT - IV

Modernization and the Law:

Modernization as a value: Constitutional perspective reflected in Fundamental Duties; Modernization of Social Institution through Law; Reform of Family Law; Agrarian Reform; Industrial Reforms: Free Enterprise v. State Regulation, industrialization v environmental protection; Reform of Court Processes:i. Criminal Law : Plea Bargaining, Compounding & Payment of Compensation to Victim ii. Civil Law:(ADR)Confrontation iii. Consensus, Mediation & Conciliation, Lok Adalats

Women, Children and the Law:

Status of Women in Indian Society; Crimes against Women; Gender injustice: forms, causes and remedies; Women's Commission; Empowerment of Women: Constitutional and other legal provisions; Child Labour; Sexual Exploitation; Adoption, maintenance and related problems; Child and Education;

UNIT - V

Alternative approaches to Law:

Jurisprudence of Sarvodaya, Gandhiji, Vinoba Bhave, Jai Prakash Narain; Socialist thought on Law & Justice: An enquiry through Constitutional debates on the right to property; Indian Marxist Critique of Law & Justice; Naxalite movement: Causes & Cure;

SUGGESTED READINGS:

I.   Agnes, Flavia, Law and Gender Inequality: The Politics of Women's Rights in India(1999), Oxford.
II.   D.D. Basu, Shorter Constitution of India (1996), Prentice – Hall of India(P) Ltd., NewDelhi.
III. H.M. Seervai, Constitutional Law of India (1996), Tripathi.
IV.   India Law Institute, Law and Social Change: Indo-American Reflections, Tripathi(1988)
V.   J.B. Kripalani, Gandhi: His life and Thought, (1970) Ministry of Information andBroadcasting,
VI.   M.P. Jain, Outlines of Indian Legal History, (1993), Tripathi, Bombay
VII. Manushi, A Jornal about Women and Society.
VIII. Marc Galanter (ed.), Law and Society in Modern India (1997) Oxford.
IX.   Robert Lingat, The Classical Law of India (1988), Oxford.

Indian Constitutional Law

UNIT - I

Making of the Constitution :Demand for a Constitution framed by a Constituent Assembly; The Cripps' offer of 1942; The Wavell Plan of 1945; The Cabinet Mission Plan, 1946; The Mountbatten Plan, 1947; The Indian Independence Act, 1947; Constituent Assembly in India and framing of the Constitution; Formation of the Constituent Assembly of India; The issues before the Constituent Assembly; Passing of the Constitution; Dr. B. R. Ambedkar's contribution in the making of the Constitution; Date of Commencement of the Indian Constitution; Concepts of Constitutional Law and Constitutionalism; Forms and characters of various models of Constitution; Salient features of the Constitution of India;

UNIT - II

Preamble - Meaning of the Preamble; Object, Purpose and Scope of the Preamble; Contents of the Preamble; Utility of Preamble in interpretation of the Constitution; Whether Preamble is part of the Constitution? Citizenship (Articles 5-11) including relevant provisions of Citizenship Act, 1955(Sections 3–10); Union & State Executive (Articles 52-78 & 152-167); Union Judiciary, State Judiciary & Subordinate Judiciary (Articles 124-147 & 214-237); Writs (Article 32); Union and its Territory (Articles 1-4); Union & State Legislature (Article 79-123 & 168-213);

UNIT - III

Legislative Relations between Union and States (Articles 245-255);State: Creation and Demand of new states; Need for widening the definition of State in the wake of liberalization;Accountability of State: Joint Parliamentary Committee & Public Account Committee; Emergency Provisions (Articles 352-360); Amendment of the Constitution (Article 368) with special reference to the Basic Structure Theory. Temporary provision (Article 370): Reorganization of Articles 370 and 35-A by the Constitution (Application to Jammu and Kashmir) Order 2019 and Re-Organization of Jammu and Kashmir through The Jammu And Kashmir Reorganization Act, 2019. (Basic Concepts and Future Effects);

UNIT - IV

Fundamental Rights; General (Articles 12 &13); Right to Equality (Articles 14-18); Right toFreedom (Article 19); Fundamental Duties (Article 51A); Right to Freedoms (Articles 20-22)Right against Exploitation (Articles 23 & 24); Freedom of Religion (Articles 25-28); Democratic Process-Grass Root Democracy: Democratic Decentralization and Local SelfGovernment; Election: Mechanism and Procedure; Election Commission: Constitution andStatus; Electoral Reforms: Transparency, Free, fair and fearless election; CoalitionGovernment, Stability, Durability; Corrupt Practice; Nexus of politics with criminals and the business;

UNIT - V

Cultural and Educational Rights (Articles 29 & 30); Right to property as constitutional right (Articles 31A-31D & 300A); Right to Constitutional Remedies (Articles 32- 35A); Directive Principles of State Policy (Articles 36-51); Trade, Commerce and Intercourse within the Territory of India (Articles 301-307); Safeguards to Civil Servants (Articles 309-311); Public Service Commission's (Article 315-323); Election Commission (Articles 324-329);

SUGGESTED READINGS :
   I.   Bakshi, P.M. : Constitution of India- 8th Edition, Universal Law Pub., 2017.
   II.   Basu, D.D. : Introduction to the Constitution of India (English & Hindi)
   III. Basu, Durga Das : Shorter Constitution of India, 13th Edition, Wadhwa, 2012.
   IV.   Constitution of India as amended up to-date
   V.   Constitution (Application To Jammu And Kashmir) Order 2019

VI. Granville Austin, Working of a Democratic Constitution- The Indian Experience, Oxford University Press.

VII. H. M. Seervi, Constitutional Law of India, N.M. Tripathi.

VIII. H.R. Khanna, Making of India's Constitution, Eastern Book Co., Lucknow HarperCollins Publication, India. 2019.

IX. Jain, M.P. : Indian Constitutional Law- 5th Edition, Wadhwa, 2015.

X. Kashyap Subhash C., Constitutional Law of India, Universal Law Publishing Co. Pvt.Ltd., 2015

XI. M.P. Singh, V.N. Shukla's Constitution of India, Eastern Book Company, (2013).

XII. Seervai, H.M. : Constitutional Law of India- 4th Edition, Universal Law PublishingCo. Pvt. Ltd., 2012.

XIII. The Jammu and Kashmir Reorganisation Act, 2019

XIV. Various Amendments made to the Constitution of India

LEGAL THEORY AND HUMAN RIGHTS PHILOSOPHY

UNIT - I

Positivism - Relation between Law and Morality, Analytical Positivism, Imperative Theory of Law, Pure theory of Law, the concept of Law.

UNIT - II

Historical and Sociological approach to Law: Theory of Volkgeist, Anthropological approach to law, purpose theory, living law theory, social engineering;

UNIT - III

Post sociological approach realism, Justice Cardozo: Judicial process, Justice Holmes, critical legal studies, Feminist Philosophy;

UNIT - IV

Justificatory theories in shaping the concept of Human Rights, Theology, Natural law and natural rights, Utilitarianism - Right based theory and collective rights;

UNIT - V

Modern theories of Human Rights, Rawls Theory of Justice: Nozick - Ronald Dworkin, Right to Solidarity, Global Justice: meaning and application;

SUGGESTED READINGS :

I. Bodenheimer – Jurisprudence : The Philosophy and Method of Law

II. Friedman – Legal Theory

III. Rawls: Theory of Justice U. Baxi, The Crisis of the Indian Legal System (1982), Vikas Publishing House, NewDelhi.

IV. Upendra Baxi, "Law, Democracy and Human Rights": 5 Lokayan Bulletin 4 (1987)

V. V.D. Mahajan – Jurisprudence

Paper4-
Recent Legal Developments in Criminal Laws- (Viva- voce and Project Work)

Here the students are asked to go out of the class room and library and make an empirical study of a problem which has social, economic, moral or political dimension. Field data can be collected through any model of data collection. The results are to be assessed internally by a designated faculty member who is engaging LL.M. Classes regularly;

SEMESTER II

LEGAL EDUCATION AND RESEARCH METHODOLOGY

UNIT - I

Legal Education: Methods & Objective:

Lecture Method of Teaching: Merits and Demerits; The problem method; Discussion method and its suitability at postgraduate level teaching; The seminar method of teaching; Examination system and problems in evaluation external and internal assessment; Student participation in law school programmes, organizations of seminars, publication of journal and assessment of teachers; Clinical legal education – legal aid, legal literacy, legal survey and law reform;

UNIT - II

Research Method:

Socio-Legal Research; Doctrinal and non-doctrinal research; Relevance of empirical research; Induction and deduction; Identification problem of research – what is a research problem; Survey of available literature and preparation of bibliography; Legislative materials including subordinate legislation, notification and policy statements;

UNIT - III

Research Materials:

Decisional materials including foreign decisions; methods of discovering the ‖rule of the case‖; Juristic writings: A Survey of juristic literature, its relevance in selection of problems in India and foreign periodicals; Compilation of list of reports or special studies conducted relevant to the problems; Formulation of the Research Problem, hypothesis; Devising tools and techniques for collection of data; Methods for the collection of statutory and case material and juristic literature; Use of historical and comparative research material; Use of observation studies; Use of the Case Studies; Use of questionnaires/interview; Sampling procedures, design of sample, types of sampling to be adopted; Use of scaling techniques; Jurimetrics;

UNIT - IV

Data Collection:

Computerized Research: A study of legal research programmes such as lexis and West law coding; Classification and Tabulation of Data: use of cards for data collection, Rules for tabulation, Explanation of tabulated data; Analysis of Data – Qualitative and Quantitative;

UNIT - V

Report Writing; Research report & techniques of writing research work; Citation rules and modes of legal writing, Case Analysis, Impact of Decisions of the Court;

SUGGESTED READINGS:

I. High Brayal, Nigel Dunean and Richard Crimes, Clinical Legal Education: ActiveLearning in your Law School, (1998) Blackstone Press Limited, London.
II. S. K. Agrawal (Ed.), Legal Education in India (1973), Tripathi, Bombay.
III. M.O. Price, H.Bitner and Bysiewiez, Effective Legal Research (1978)
IV. William J. Grade and Paul K. Hatt, Methods in Social Research, Mc Graw-Hill Book
V. Company, London
VI. H. M. Hyman, Interviewing in Social Research (1965)

JUDICIAL PROCESS

UNIT - I

Nature of Judicial Process:

Judicial process as an instrument of social ordering; Judicial process and creativity in Law: Common law model, legal Reasoning and growth of law, change and stability; The tools and techniques of judicial creativity and precedent; Legal development and creativity through legal reasoning under statutory and codified system.

UNIT - II

Special dimensions of Judicial Process in Constitutional Adjudication:

Notion of Judicial Review; Role in constitutional adjudication: various theories of judicial role; Tools and techniques in policy making and creativity in constitutional adjudication; Varieties of judicial and juristic activism; Problems of accountability & Judicial Law making.

UNIT - III

Judicial Process in India:

Indian debate on the role of judges and on the notion of judicial review; The -independence‖ of judiciary and the -political‖ nature of judicial process; Judicial activism and creativity of the Supreme Court: the tools and techniques of creativity- Judicial process in pursuit of constitutional goals and values: New dimensions of judicial activism and structural challenges; Institutional liability of courts its scope and limits.

UNIT - IV

The Concept of Justice:

The concept of justice and Dharma in Indian thought; Dharma as the foundation of legal ordering in Indian thought; The concept and various theories of justice in the western thought; Various theoretical bases of justice: The liberal contractual tradition, the liberal utilitarian tradition and the liberal moral tradition.

UNIT - V

Relation between Law and Justice:

Equivalence Theories – Justice as nothing more than the positive law of the stronger class; Dependence theories: for its realization, Justice depends on law, but justice is not the same as law; The independence theories of justice as a means to an end, the relationship in the context of the Indian Constitutional ordering; Analysis of selected cases of Supreme Court where the Judicial Process can be seen as influenced by theories of Justice.

SUGGESTED READINGS :

I.   A. S. Anand, Judicial Review – Judicial Activism–Need for Caution, Journal ofIndian Law Institute P. 149 (2000).

II.   Amartya Sen, ‗Idea of Justice', Allen Lane & Harvard University Press, 2009

III.   Cordozo ‗The Nature of Judicial Process (1995). Universal Law Publishing Co., NewDelhi

IV.   Henry J. Abraham, The Judicial Process (1998), Oxford University Press

V.   J. Stone. Legal System and Lawyer's Reasoning (1999), Universal Law PublishingCo., New Delhi

VI.   J.Stone, Precedent and the Law: Dynamics of Common Law Growth(1985),Butterworths.

VII.   Julius Stone. The Province and Function of LawCh.1, PP 8-16, (2000) Universal LawPublishing Co., New Delhi

VIII. Rajeev Dhavan. The Supreme Court of India – A Socio-Legal Critique of its JuristicTechniques (1977), Tripathi – Bombay.

IX.   S. P.Sathe, Judicial Activism in India: Transgressing borders and Enforcing Limits,Oxford New Delhi. (2000

CRIMINOLOGY AND CRIMINAL JUSTICE ADMINISTRATION

UNIT - I

Criminology: Definition, Nature and Scope, Methods of Studying, Importance and Classification of Crime Criminal Behaviour: Explanations; Psychological Theories: Alcoholisms and Drugs; Crimeand Social Processes: Economic Motivation, Socio-cultural Movements, Crime andCommunity, Female Offender, Influence of Mass-Media;

UNIT - II

Schools of Criminological Thought (Factors in Causation of Criminal Behaviour): Schools of Criminology: The Pre-Classical School; The Classical School; Neo-ClassicalSchool; Positivist Approach; Radical Positivism and Liberal Positivism: Cesare Lombroso; Enrico Ferri; Raffaele Garofalo; GabrialTarde

UNIT - III

Criminal Justice System (CJS):

Meaning, Purpose and Social Relevance; Legislative Process and CJS; Functionaries of CJS: Police, Prosecution, Judiciary, Prison; Control of Crime: Police and Law Courts: Prison System-Re-socialisation of the Offender, Rehabilitation of Discharged Prisoners in the Administration of Criminal Justice, Prevention of Crime Delinquency

UNIT - IV

Administration of Criminal Justice System (CJS):

Police: Fundamentals of Police Administration; Organization and Structure of Police; Police Act of 1861 – Recent State Enactment (The Rajasthan Police Act, 2007); Police Reforms in Independent India and Judicial Intervention; Policing in Modern Society- Different Approaches Including Community Policing etc.

UNIT - V

Role of various Agencies in Protection of Human Rights under Criminal Justice System (CJS):

International Level: Human Rights and the United Nations Charter; Normative and Institutional Framework of the UN; Role of the Permanent Organs of the UN, Human Rights; Commissions, UN High Commissioner for Human Rights;

National Level: The Protection of Human Rights Act, 1993; National Human Rights Commission; State Human Rights Commissions; Human Rights Courts; Other Commissions; Emerging regime of New Human Rights under CJS in India;

SUGGESTED READINGS*:

- Qadri, and Ahmed Siddique, Criminology - Problems and Perspectives, Eastern BookCo., 6th Ed.,2009, Reprinted2014.
- Pananjpe, N.V. Criminology and Penology, Central Law Publications, 2005.
- K.D.Gour, Criminal Law and Criminology, Deep & Deep Publications, India, 2003.
- Katherine S Williams: Textbook of Criminology, Universal Publication, (2001-Indianreprint)
- K.N. Pillai, Chandrasekharan, General Principles of Criminal Law, Eastern Book Co.,2005.
- Shukla Girjesh, Criminology, Lexis Nexis, New Delhi, 2013.

POLICE LAW AND ADMINISTRATION

Unit 1

Introductory

i. Notions of "force", "coercion", "violence"
ii. Distinction: "Symbolic violence", "Institutionalized violence", "Structural violence"
iii. Legal order as a coercive normative order.
iv."Collective political violence" and legal order.

v. Notion of legal and extra-legal "repression"

Unit 2

Agrarian Violence and Repression

i. The nature and scope of agrarian violence in the 18-19 centuries India.
ii. Colonial legal order as a causative factor of collective political (agrarian) violence
iii. The Telangana struggle and the legal order
iv. The Report of the Indian Human Rights Commission on Arwal Massacre

unit 3

Violence against the Scheduled Castes

i. Notion of Atrocities
ii. Incidence of Atrocities
iii. Uses of Criminal Law to combat Atrocities or contain aftermath of Atrocities
iv. Violence against Women.

Unit 4

Communal Violence

i. Incidence and courses of "communal" violence
ii. Findings of various commissions of enquiry
iii. The role of police and para-military systems in dealing with communal violence
iv. Operation of criminal justice system in relation to communal violence.

Unit 5

Contemporary issues and challenges in policing

 i. Contemporary issues in policing
 ii. Crimes against Children and Weaker Sections of the society
iii. Role of police
iv. Gender sensitization: Women police and their role in police work; Sexual Harassment at work place

SUGGESTED READINGS:*

- Upendra Baxi, The Crisis of the Indian Legal System, Vikas Publishing House, NewDelhi,(1982)
- Upendra Baxi (ed.), Law and Poverty: Essays, 1988.
- Glanville Williams – Textbook of criminal law
- Russel on Crime
- K.D. Gaur, Criminal Law: Cases and Materials (1999), Butterworths (India)

SEMESTER III

PENOLOGY AND VICTIMOLOGY

UNIT - I

Penology:

Definition, Nature and Scope of Penology: Crime Control Mechanism: Police; Court; Public Prosecutor; Jail Administration; Open Prison; Theories of Crime Causation; Differential Association; Theory of Crime: Biological, Environmental, Socio–Economic and Psychological Factors affecting Crime;

UNIT - II

Probation of Offenders Act, 1958:(As amended):Need, Importance, Objectives; Definition, Concept, Key Features of the Act and Judicial Responses; The Scheduled Castes And The Scheduled Tribes (Prevention of Atrocities) Act, 1989 and The Amendment Act, 2018:Need, Importance, Objectives; Definition, Concept, Key Features of the Act and Judicial Responses;

UNIT - III

Different Kinds of Criminals: Different types of Crimes – Impact of Religion, Political Parties, Media, Family etc. on Crime; Recidivism; Capital Punishment: Constitutionality, Problems related to Capital Punishment, Judicial attitude in India towards Capital punishment; Relevant Case Laws and Law Reforms Proposals

UNIT - IV

Victimology:

Definition, Nature and Scope; Victim: Meaning and Kinds; Impact of Victimization:Physical, Economic and Psychological; Double / Secondary Victimization; Concept; Constituent Elements of Crime and Victimology; Nature and Scope of Victimology; Development of Victimology, Status of Victim in Criminal Justice System: Rights of Victim: Compensation to Victim of Crime; Statutory Provisions; Role of Judiciary; Rehabilitation of Victims of Crime;

UNIT - V

Punishment and Sentencing:

Types of Punishment; Theories of Punishment: Retribution; Deterrence; Preventive; Prohibitory; Reformatory; Expiatory; Utilitarian; Alternatives to Punishment Sentencing Policy; Remission; Commutation; Pardoning;

Access to Justice: Compensation to Victims of Crime; Rights of Victims During Trial; Legal Assistance to the Victims; Role of Victim at time of Granting Bail; Right of Victim to Appeal Malimath Committee Recommendations; Justice J.S. Verma Committee Report; Criminal Law Amendment Act, 2013 (Key Highlights); Victim Assistance Program;

SUGGESTED READINGS*:

- Daigle, E. Leah, Victimology, Safe Publication, 1sted. 2013.
- Gaur, K.D., Criminal Law and Criminology, Deep & Deep Publications, India,2003.
- Katherine S Williams: Textbook of Criminology, Universal Publication, (2001-Indian reprint)
- Paranjape, N.V. Criminology and Penology, Central Law Publications, 2005.
- Paranjape, Criminology, Penology with Victimology, Central Law Publication,16th Ed. 2014.
- Pillai, K.N. Chandrasekharan, General Principles of Criminal Law, Eastern BookCo., 2005.
- Qadri, S.M.A., and Ahmed Siddique, Criminology - Problems and Perspectives,Eastern Book Co., 6th Ed.,2009, Reprinted2014.

PRIVILEGED CLASS DEVIANCE

Unit I: Introduction

Conception of white color crimes, Indian approaches to Socio-economic offences, Notions of privileged class deviance as providing a wider categorization of understand Indian development.

Unit II: Official Deviance

Conception of official deviance - permissible limit of discretionary powers Commissions on official deviance (The Chambal valley dacoit - Vinoba Mission and Jai Prakash Narain Mission – in 1959 and 1971,TheChagla Commission Report in LIC -Mundhra Affair, The Das Commission Report on Pratap Singh Kairon, The Grover Commission Report on Dev Raj Urs,The Maruti Commission Report,TheIbakkar - Natarajan Commission Report on Fairfax)

Unit III: police deviance

Police Atrocities: Encounter killing and the plea of superior's orders, Structure of legal restraint on police power in India, Unconstitutionality of 'Third Degree' method and use of fatal force by Police.

Unit IV: professional deviance

Unethical practices by the Lawyers, Unethical practices by the Doctors, Unethical practices by the Media Persons.

Unit V Response of Indian Legal order to the Deviance of Privileged Classes

Prevention of Corruption Act, 1947, Vigilance Commission, Commission of Enquiry

SUGGESTED READINGS*:

- Kaplan, Howard B -Patterns of Juvenile Delinquency‖ (Sage Pub., Beverly Hills, 1984).
- United Nations Beijing Rules on Treatment of Young Offenders,1985.
- H S Becker Outsiders: The Studies in Sociology of Deviance, 1966.
- B.B. Pande, "The Nature and Dimensions of Privileged Class Deviance" in The OtherSide of Development 136 (K.S. Shukla ed.) 1987;
- Upendra Baxi, The Crisis of the Indian Legal System, Vikas Publishing House, NewDelhi,(1982)
- Upendra Baxi (ed.), Law and Poverty: Essays, 1988.

CYBER CRIMES

UNIT - I

Introduction to Cyberspace, Cybercrime and Cyber Law: Regulatory Framework of Information and Technology Act 2000; Offences and Penalties; The World Wide Web; Web Centric Business; e-Business Architecture, Models of E-Business, E-Commerce, Threats to Virtual World; Cyber Crimes: Difference between Traditional Crime and Cyber Crimes; Classification of Cyber Crimes: Against Person, Property and Government; Reasons for growth of Cyber Crimes;

UNIT - II

Kinds of Cyber Crimes: Cyber Squatting, Cyber Espionage, Cyber Warfare, Cyber Terrorism, Online Safety for Women and Children, Misuse of Private Information; Hacking; Digital Forgery; Cyber Stalking/Harassment; Cyber Pornography; Identity Theft & Fraud; Cyber Defamation Viruses (File Infectors, Boot Record Infectors, Boot and File Viruses); Web Jacking; Denial of Service Attack;

UNIT - III

Cyber Crime: Overview, Internal and External Attacks, Attack Vectors; Cyber Crimes Against Individuals; E-mail Spoofing and Online Frauds, Phishing and its Forms, Spamming, Cyber Bullying, Computer Sabotage, Pornographic offenses, Password Sniffing; Keyloggers and Screen-loggers; Cyber Crimes against Women and Children;

UNIT - IV

Cyber Crimes Against Organization: Unauthorized Access of Computer, Denial-of-service (DOS) attack, Backdoors and Malwares and its types, E-mail Bombing, Salami Attack,

Software Piracy, Industrial Espionage, Intruder attacks; Security Policies Violations, Crimes related to Social Media, A.T.M., Online and Banking Frauds. Intellectual Property Frauds;

UNIT - V

Cyber Crime and Cloud Computing: Different Types of Tools Used in Cybercrime, Password Cracking; Online attacks, Offline attacks, Remote attacks, Random Passwords, Strong and weak passwords. Viruses and Its Types; Ransom-ware and Crypto-currencies; DoS and DDoS attacks and their types; Cyber Criminal Syndicates and Nation State Groups

SUGGESTED READINGS*:

- Nina Godbole and Sunit Belapore; -Cyber Security: Understanding Cyber Crimes, Computer Forensics and Legal Perspectives‖, Wiley Publications, 2011.
- Shon Harris, —All in One CISSP, Exam Guide Sixth Edition‖, McGraw Hill, 2013.
- Bill Nelson, Amelia Phillips and Christopher Steuart; -Guide to Computer Forensics and Investigations‖,3rd Edition, Cengage, 2010 BBS.
- Atul Jain; -Cyber Crime: Issues, Threats and Management‖, 2004.
- MajidYar; -Cybercrime and Society**‖**, Sage Publications, 2006.
- Michael E Whiteman and Herbert J Mattord; -Principles of Information Security**‖**, Vikas Publishing House, New Delhi, 2003.
- Matt Bishop, -Computer Security Art and Science**‖**, Pearson/PHI, 2002.
- Karnika Seth; -Computers, Internet and New Technology Laws**‖**, Lexis Nexis Buttersworth Wadhwa, 2012.

JUVENILE DELINQUENCY

Unit I

The conception of 'child' in Indian Constitution and Penal Code, Delinquent Juvenile, 'Neglected Juvenile', the Overall situation of children/young persons in India, also with reference to crime statistics.

Unit II:

Determining Factors of Juvenile Delinquency:

Differential association, Anomie, Economic pressure. Peer group influence. Gang sub-culture., Class differentials.

Unit III:

Legislative Approaches Legislative approaches during the late colonial era, Juvenile Justice Act, 2000, Constitutional Aspects, Competent Authorities, Powers given to government

Unit IV:

Indian Context of Juvenile Delinquency The child population percentage to total sex ratio, CHILD Labourers In organised industries & In unorganised section Drug Addicts, Victims of violence-sexual abuses, battered, killed by parents.

Unit V:

Judicial Contribution and Preventive Strategies ;Social Action Litigation concerning Juvenile Justice, Judicial decisions,State Welfare Programme health, Nutrition, Role of community, family, voluntary bodies.

References Books:

1. Chandana Sarkar: Juvenile delinquency in India: an etiological analysis

2. Ram Ahuja : Social problems in India

3. India. Central Bureau of Correctional Services: Juvenile delinquency: a challenge

4. Arvindrai N. Desai: Juvenile delinquency in India: a psychological analysis

5. Larry J. Siegel , Brandon C. Welsh : Juvenile Delinquency: Theory, Practice, and Law

6. Sheila Brown: Understanding Youth and Crime: Listening to Youth?

SEMESTER IV

LAW OF CRIMES

Unit – I: Introduction to Substantive Criminal Law

a. Extent and operation of the Indian Penal Code

b. Definition of Crime

c. Fundamental elements of crime

d. Stages in commission of a crime

e. Intention, Preparation, Attempt

General Explanations and Exceptions

Unit – II: Abetment and Criminal Conspiracy

Punishment : (a) Theories: Deterrent, Retributive, Preventive, Expiatory and Reformative Theory

(b) Punishment under the IPC: Fine, Imprisonment, Capital Punishment

Unit – III : Offences affecting the Human body

a. Offences affecting life, causing miscarriage, or injuries to unborn children

b. Offences of hurt, of wrongful restraint and wrongful confinement

c. Offences of criminal force and Assault, offences of kidnapping and Abduction

Unit- IV: Offences against Women

a. Obscene acts and songs

b. Outraging the modesty of women

c. Rape

d. Cruelty by husband or relatives of husband

e. Offences relating to marriage

Unit –V: Offences against Property & OFFENCE OF DEFAMATION

a. Theft, Extortion, robbery and dAcoity

b. Criminal misappropriation and criminal breach of trust

c. Cheating

d. Mischief

e. Criminal trespass

 F . Defamation

References Books:

- T.Bhattacharya- The Indian Penal Code

- Ratanlal & Dhirajlal – The Indian Penal Code

- H.S. Gaur – Penal Law of India

- Glanville Williams – Textbook of criminal law

- Russel on Crime

- K.D. Gaur, Criminal Law: Cases and Materials (1999), Butterworths (India)

COMPARATIVE CRIMINAL PROCEDURE

UNIT I

- Organization of courts and Prosecuting Agencies

- Criminal Courts – Hierarchy and their Jurisdiction

- Nyaya Panchayats in India including Panchayats in Tribal areas.

- Organization or prosecuting agencies for prosecuting Criminals: Prosecutors and the police.

- Withdrawal of Prosecution.

UNIT II

- Pre Trial Procedures

- Rights of the accused

- Arrest and questioning of the accused; evidentiary value of statements/articles seized/collected by the police.

- Right to counsel

- Role of Prosecutor and judicial officer in investigation.

UNIT III

- Trial procedures

- Role of the Prosecutor, Defence attorney and the Judge in the trial.

- Evidence: Admissibility, Inadmissibility; Expert Evidence.

- plea Bargaining

UNIT IV

- Pre-sentence hearing Ss 235(2) and 248(2)

- Transfer of Cases

- Sentences

- Execution, Suspension, remission and commutation of sentences

UNIT V

- Correction and After care services

- Institutional correction of offenders

- After-care services in India and France General Comparison

- Role of court in correctional programs in India.

- Preventive measures in India: Provisions in the criminal Procedure Code; special enactments.

- Public Interest Litigation: Directions for Criminal Prosecution

Preferably the paper should be taught with reference to India, England, US, France, China and Russia wherever necessary.

Suggested Readings:

- Celia Hempton, Criminal procedure.
- Criminal Procedure Code,1973.
- The French Code of Criminal Procedure.
- 14th and 41th Repots of Indian Law Commission.
- Kelkar's Outlines of Criminal Procedure.

INTERNATIONAL CRIMINAL LAW

Unit 1

'Horizontal' international Criminal Law

1. National jurisdiction to prescribe criminal laws
2. National jurisdiction to enforce criminal laws

Unit 2

Sources of Criminal law, Prosecution in National courts, the forms of jurisdiction, Conceptual matters, The 'traditional' heads of jurisdiction.

Unit 3

'Vertical' international criminal law

1. The substantive international law-The concept of international law

   ➢ Crimes under general international law-

      • General
      • Imposing responsibility
      • Excluding responsibility

   ➢ Treaty crimes

      • General
      • Focus on Treaty–based responses to terrorism

2. Enforcement

   ➢ International crimes in municipal laws and courts:

      • Imposing and excluding responsibility
      • Immunity and inviolability
      • Amnesties and statutes of limitation

Unit 4

➢ International Criminal Tribunals:

   • The international criminal Tribunals for the former Yugoslavia and Rwanda
   • The Special Court for Sierra Leone
   • The International Criminal Court

➢ International criminal procedure: focus on the rights of accused

Unit 5

➢ Principles and procedures of International prosecutions, General Principles of Liability, Procedures of International Criminal Investigations and Prosecutions Sentencing, Penalties and Reparations to Victims

➢ The Future of International Criminal Law

Suggested Readings;

- Politics and Human Rights in International Criminal Law: Our Case Against NATO and the Lessons to be Learned From It', 25 Fordham International Law Journal 95-128 (2001)
- How America Gets Away With Murder: Illegal Wars, Collateral Damage and Crimes Against Humanity (Pluto Press, 2004)
- Three Dangers for the International Criminal Court: A Critical Look at a Consensual Project', 12 Finnish Yearbook of International Law 193-247 (2001)
- 'The Politics of International Criminal Justice', 13 European Journal of International Law 1261-1284 (2002)
- 'In Defense of Hybridity: Towards a Representational Theory of International Criminal Justice', 38 Cornell International Law Journal 725-751 (2005)
- 'From "Savages" to "Unlawful Combatants": A Postcolonial Look at International Humanitarian Law's "Other"', in Anne Orford (ed), International Law and its Others (CUP, 2006)
- 'A Special Tribunal for Lebanon: The UN Security Council and the Emancipation of International Criminal Justice', 21 Leiden Journal of International Law 485-512 (2008)

DISSERTATION

<u>OBJECTIVES OF THE COURSE :</u>

This course consists of the Dissertation which will comprise of writing a short project/thesis on a leading / recent topic in the elective branch which will test the research capabilities, aptitude and skills of the student.

Dissertation   (Written Part)

Sequence of Pages: Cover Page/ Certificate/ Declaration/ Acknowledgment/ Preface/ Abbreviations/Table of Cases/ Contents/ Main Text/ Bibliography/ Appendixes

Note- the Students are advised to refer to the samples but in no case it should limit the creativity in writing. All the sample pages are based on the minimum requirements of a standard dissertation as well as imaginary particulars. The standard Bluebook Citation should be followed in making the Dissertation.

Viva – Voce

The Project shall be evaluated by one Internal and oneExternal Examiner and the decision of External Examiner shall be final and binding.

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

Faculty of Education and Methodology
Department of Science & Technology

BACHELOR OF TECHNOLOGY (B.TECH.)
COMPUTER SCIENCE & ENGINEERING(CSE)

SESSION – 2022-23

DURATION – 4 YEARS (8 SEMESTERS)

PROGRAM DETAIL

Name of Program	Bachelor of Technology (B.Tech)
Program Code	B.Tech
Mode of Program	Semester
Duration of Program	4years/ 8 Semester
Total Credits of Program	302
Curriculum Type and Medium Choice	English

Program Outcomes:

An engineering student to be graduated will learn engineering knowledge, analyzing problems, designing systems and finding solutions, solving complex problems using mathematical and computing methods, using various tools etc. Also, how to communicate and do the teamwork, developing systems and architectures that are sustainable, management of project and finances and learnings that will be life-long.
An Engineering graduate student will able to:

- ➢ Apply the knowledge of engineering fundamentals, sciences to solve complex problems.
- ➢ Identify the problem, formulate, review previous work if done, analyze the complex problem and find solutions.
- ➢ Design solutions for complex engineering problems and design system components
- ➢ Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- ➢ Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling
- ➢ Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- ➢ Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- ➢ Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

SYLLABUS OUTLINE

I SEMESTER

Nature of Course	Course Name	C	T	p
Mathematics	Elementary Mathematics	6	6	0
Physics	Elementary Physics	6	4.5	1.5
Chemistry	Fundamentals of Chemistry	6	4.5	1.5
Core Engineering	Engineering Drawing Lab	6	0	6
Core Computer Science	Fundamental of Computers	6	3.5	2.5
University Compulsory Course	Language Proficiency (English Communication/ Hindi / Sanskrit / Foreign Language)/Fundamentals of Computer/ Environmental Science & Disaster Management/Cyber Security Applicable :English Communication	1	1	0
Academic Exposure	Extra-Curricular Activities(ECA)	1	0	1
Academic Exposure	Community Development Activities(CDA)	1	0	1
Academic Exposure	Portfolio (Government/Corporate/Entrepreneur)	1	0	1
Academic Exposure	Mentorship	1	0	1
Co-Curricular Activites	Internship /Industrial Visit /Paper Publication/Conference/Symposium	-	-	-
	Total Credits	35	19.5	15.5

Credits & Hours:

For Theory 1 Credit equal to 10 Hours

For Practical 1 Credit equal to 20 Hours

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

II SEMESTER

Nature of Course	Course Name	C	T	P
Mathematics	Mathematics-II	6	6	0
Physics	Physics-II	6	4.5	1.5
Core Computer Science	Programming in C	6	4.5	1.5
Electronics and Communication	Basics of Electronics and Electronic Engineering	6	4.5	1.5
Management	Entrepreneurship Development	6	6	0
Electronics and Communication	Digital Electronics	6	6	0
University Compulsory Course	Language Proficiency (English Communication/ Hindi / Sanskrit / Foreign Language)/ Fundamentals of Computer/ Environmental Science & Disaster Management/ Cyber Security	0	0	0
University Mission Course	Women's Rights And Law/Self Defence/Help Aid/Yoga & Meditation/Gender Sensitization/My Behaviour & Ethics **Applicable : My Behaviour & Ethics**	1	0.5	0.5
Academic Exposure	Extra-Curricular Activities	1	0	1
Academic Exposure	Community Development Activities	1	0	1
Academic Exposure	Portfolio (Government/Corporate/Entrepreneur)	1	1	0
Academic Exposure	Mentorship	-	-	-
Co-Curricular Activites	Internship /Industrial Visit /Paper Publication/Conference/Symposium	-	-	-
	Total Credits	40	33	7

Credits & Hours:
For Theory 1 Credit equal to 10 Hours
For Practical 1 Credit equal to 20 Hours

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

III SEMESTER

Nature of Course	Course Name	C	T	P
Management	Economics	5.5	5.5	0
Mathematics	Engineering Mathematics – III	6	6	0
Electronics and Communication	Data Communications	6	6	0
Core Computer Science	Computer System Architecture	6	6	0
Core Computer Science	Data Structures & Algorithms	6	4.5	1.5
Core Computer Science	Object Oriented Programming	6	4.5	1.5
University Mission Course	Women Rights and Law	1	1	0
Professional Development Activity	Certified Training	4	0	4
University Compulsory Course	Extra-Curricular Activities	1*	0	1
University Compulsory Course	Community Development Activities	1*	0	1
Portfolio Development Activity	Portfolio (Government/Corporate/Entrepreneur)	0.5	0.5	0
University Optional Course	Professional Activity	--	--	--
Total Credits		43	34	9

Credits & Hours:
For Theory 1 Credit equal to 10 Hours
For Practical 1 Credit equal to 20 Hours

Note:
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- *Represent as per university norms

IV SEMESTER

Nature of Course	Course Name	C	T	P
Management	Value, Ethics and Governance	5.5	5.5	0
Mathematics	Engineering Mathematics – IV	6	6	0
Core Computer Science	Operating Systems	6	4.5	1.5
Core Computer Science	Relational Database Management Systems	6	4.5	1.5
Core Computer Science	Computer Organization	6	6	0
Core Computer Science	Open Elective – I	6	6	0
Core Computer Science	Web Technology Lab	2	0	2
University Compulsory Course	Extra-Curricular Activities	1*	0	1
University Compulsory Course	EVS & DM	1*	0	1
University Compulsory Course	Community Development Activities	1	0	1
Portfolio Development Activity	Portfolio (Government/Corporate/Entrepreneur)	1.5	1.5	0
University Optional Course	Professional Activity	--	--	--
Total Credits		42	34	8

Credits & Hours:
For Theory 1 Credit equal to 10 Hours
For Practical 1 Credit equal to 20 Hours

Open Electives:

1.	Fundamentals of Databases	
2.	Principles of Programming Languages	
3.	Enterprise Resource Planning	
4.	Principles of Machine Learning	

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JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

V SEMESTER

Nature of Course	Course Name	C	T	P
Core Computer Science	Artificial Intelligence & Soft Computing	6	4.5	1.5
Core Computer Science	Design & Analysis of Algorithms	6	4.5	1.5
Core Computer Science	Automata Theory & Compiler Design	6	6	0
Core Computer Science	Computer Networks	6	4.5	1.5
Core Computer Science	Program Elective – I	6	6	0
Core Computer Science	Open Elective – II	6	6	0
University Mission Course	Help Aid	1	1	0
University Compulsory Course	Extra-Curricular Activities	1*	0	1
University Compulsory Course	Community Development Activities	1*	0	1
Professional Development Activity	Industrial Visit	1	1	0
Portfolio Development Activity	Portfolio (Government/Corporate/Entrepreneur)	0.5	0.5	0
University Optional Course	Professional Activity	--	--	--
Total Credits		**40.5**	**34**	**6.5**

Programme Electives:

1.	Information Retrieval
2.	Computer Graphics & Multimedia
3.	User Interface Design
4.	Digital Image Processing
5.	Internet of Things
6.	Big Data Analytics
7.	Software Defined Networks
8.	Deep Neural Network
9.	Social Network Analysis
10.	Software Testing
11.	Linux System and Shell Programming
12.	Wireless Sensor & Adhoc Network
13.	Mobile Computing
14.	Natural Language Processing
15.	Computer Vision

Open Electives:

1.	Fundamentals of Databases
2.	Principles of Programming Languages
3.	Enterprise Resource Planning
4.	Principles of Machine Learning

Credits & Hours:
   For Theory 1 Credit equal to 10 Hours
   For Practical 1 Credit equal to 20 Hours

Note:
- C represents number of Credit per course.
- T represents number of Theory Credit per course.
- P represents number of Seminars, group discussion, workshop

VI SEMESTER

Nature of Course	Course Name	C	T	P
Core Computer Science	Organization and Management	6	6	0
Core Computer Science	Software Engineering	6	4.5	1.5
Core Computer Science	Information Systems Security	6	4.5	1.5
Core Computer Science	Data Science and Machine Learning	6	6	0
Core Computer Science	Program Elective – II	6	6	0
Core Computer Science	Open Elective – III	6	6	0
Core Computer Science	Minor Project	2	0	2
University Mission Course	Gender Sensitization	1	1	0
University Compulsory Course	Extra-Curricular Activities	1*	0	1
University Compulsory Course	Community Development Activities	1*	0	1
Portfolio Development Activity	Portfolio (Government/Corporate/Entrepreneur)	1.5	1.5	0
University Optional Course	Professional Activity	--	--	--
Total Credits		**42.5**	**35.5**	**7**

Programme Electives:

1.	Information Retrieval
2.	Computer Graphics & Multimedia
3.	User Interface Design
4.	Digital Image Processing
5.	Internet of Things
6.	Big Data Analytics
7.	Software Defined Networks
8.	Deep Neural Network
9.	Social Network Analysis
10.	Software Testing
11.	Linux System and Shell Programming
12.	Wireless Sensor & Adhoc Network
13.	Mobile Computing
14.	Natural Language Processing
15.	Computer Vision

Open Electives:

1.	Fundamentals of Databases
2.	Principles of Programming Languages
3.	Enterprise Resource Planning
4.	Principles of Machine Learning

Credits & Hours:
For Theory 1 Credit equal to 10 Hours
For Practical 1 Credit equal to 20 Hours

Note:
- C represents number of Credit per course.
- T represents number of Theory Credit per course.
- P represents number of Seminars, group discussion, workshop

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

VII SEMESTER

Nature of Course	Course Name	C	T	P
Core Computer Science	Program Elective – III	6	6	0
Core Computer Science	Program Elective – IV	6	6	0
Core Computer Science	Program Elective – V	6	6	0
Core Computer Science	Program Elective – VI	6	6	0
Core Computer Science	Program Elective – VII	6	6	0
Core Computer Science	Industrial Training	4	0	4
University Mission Course	Help Aid	1	1	0
University Compulsory Course	Extra-Curricular Activities	1*	0	1
University Compulsory Course	Community Development Activities	1*	0	1
Professional Development Activity	Industrial Visit	1	1	0
Portfolio Development Activity	Portfolio (Government/Corporate/Entrepreneur)	0.5	0.5	0
University Optional Course	Professional Activity	--	--	--
Total Credits		38.5	32.5	6

Program Electives:

16.	Information Retrieval
17.	Computer Graphics & Multimedia
18.	User Interface Design
19.	Digital Image Processing
20.	Internet of Things
21.	Big Data Analytics
22.	Software Defined Networks
23.	Deep Neural Network
24.	Social Network Analysis
25.	Software Testing
26.	Linux System and Shell Programming
27.	Wireless Sensor & Adhoc Network
28.	Mobile Computing
29.	Natural Language Processing
30.	Computer Vision

Credits & Hours:
For Theory 1 Credit equal to 10 Hours
For Practical 1 Credit equal to 20 Hours
Note:
- C represents number of Credit per course.
- T represents number of Theory Credit per course.
- P represents number of Seminars, group discussion, workshop

VIII SEMESTER

Nature of Course	Course Name	C	T	P
Core Computer Science	Major Project	16	0	16
University Mission Course	Help Aid	1	1	0
University Compulsory Course	Extra-Curricular Activities	1*	0	1
University Compulsory Course	Community Development Activities	1*	0	1
Professional Development Activity	Industrial Visit	1	1	0
Portfolio Development Activity	Portfolio (Government/Corporate/Entrepreneur)	0.5	0.5	0
University Optional Course	Professional Activity	--	--	--
Total Credits		20.5	2.5	18

Credits & Hours:
For Theory 1 Credit equal to 10 Hours
For Practical 1 Credit equal to 20 Hours

Note:
- C represents number of Credit per course.
- T represents number of Theory Credit per course.
- P represents number of Seminars, group discussion, workshop
- *Represent as per university norms

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Overall Credits: 35+40+43+42+40.5+42.5+38.5+20.5= 302

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I SEMESTER

COURSE: Elementary Mathematics

(Credits: 6)

Course Outcomes: To develop the understanding of basic mathematics i.e. algebra, calculus, trigonometry and statistics. Also, to develop the understanding of measurements. Students will able to perform various mathematical operations using methods.

Unit-I (Overview of Algebra)

(Credits: 2)

Theory

Set theory: Classification and types of Finite Set, Venn diagram, Algebra of sets. **Algebra**: Quadratic equation, Nature of roots of quadratic equations, Common Roots. Arithmetic progression, geometric progression and harmonic progression.Determinant of elementary properties of a determinant.Solution of Linear Simultaneous Equations by Cramer's Rule. Adjoin of matrices, Inverse of matrices.

Unit-II (Overview of calculus and trigonometry)

(Credits: 2)

Theory

Calculus: Differentiation of Implicit and Explicit Functions. Indefinite integrals of standard functions (simple problems), Methods of integration, **Trigonometry**- Trigonometrically Equations and General Values.

Unit-III (Overview of statistics)

(Credits: 2)

Theory

Statistics-Definition and Applications of Statistics in various fields, classification and tabulation of data, graphical representation of data (bar diagram, pie chart, histogram , frequency polygon)**Measure of central tendency**: Mean, mode, median, variance, standard deviation(definition& simple problems).

Recommended text Books:

1. Business maths: D.C.sancheti&V.K.kapoor,S.C.chand publications
2. Algebra,Bhargava, saini , agrawal JPH
3. R.D.sharma,12thDhanpat rai publications

Reference Books:
1. Elements of statistics,S.C.Gupta&V.K.kapoor,sultanchand& son's publishers.

COURSE: Elementary Physics

Course Outcomes: To impart knowledge of basic concepts in applied physics and make the students familiar with topics like interference, diffraction, polarization, fiber optics, lasers, wave mechanics, etc. This course is also aimed at enhancing the analytical capability of the engineering students.

UNIT-I (Credits: 2)
Theory (Credits: 1.5)

RELATIVITY: Review of concepts of frames of reference and Galileantransformationequation,Michelson–Morleyexperimentanditsimplications,Einstein'sspecialtheoryofrelativity,Lorentztransformationequations, Law of addition of velocities, Mass variation with velocity,Conceptofenergyandmomentum,Mass energyrelation.

OSCILLATIONS&WAVES: Dampedandforcedoscillations,Resonance(amplitude and power), Q – factor, Sharpness of resonance. Equationsof longitudinal and transverse waves and their solutions, Impedance,Reflectionandtransmissionofwavesataboundary,Impedancematchingbetweentwo medium.

Practicals: (Credits: 0.5)

S.No.	Name of Practical
1	To determine young's modulus of elasticity of the material of a given wire.
2	Using a simple pendulum plot L-T graph and hence find the effective length.

UNIT-II (Credits: 2)
Theory (Credits: 1.5)
PHYSICALOPTICS: Interference by division of wave front and amplitude, Multiple beam interference and Fabry-Perot interferometer, Fresnel diffraction through a straight edge, Zone plate, Fraunh of ferdif fraction, single slit and N-slit / grating, Resolving power of telescope,prismandgrating.Polarizationbyreflectionandbytransmission,Brewster's law, Double refraction, elliptically and circularly polarized light, Nicolprism, Quarter and half wave plates.

OPTICAL INSTRUMENTS: Cardinal points of co-axial lens systems,spherical and chromatic aberrations and their removal, Huygens and Ramsden'seyepiece.

Practicals: (Credits: 0.5)

S. No.	Name of Practical
1	To find the force constant of a helical spring by plotting graph between load and extension.
2	To find the speed of sound in air at room temperature using a resonance tube by two resonance positions
3	To study the relation between frequency and length of a given wire under constant tension using Sonometer.
4	To study the relation between the length of a given wire and tension for constant frequency using Sonometer.

UNIT-III (Credits: 2)

Theory (Credits: 1.5)

Lasers:

Coherenceandcoherentpropertiesoflaserbeams,Briefworkingprinciple of lasers, Spontaneous and stimulated Emission, Einstein'sco-efficient,Rubylaser,He-Nelaser.

Optical Fiber:

Classification of optical fibers, Refractive index profile, Core-claddingrefractive index difference, Numerical aperture of optical fiber, Pulse dispersion in optical fiber(ray theory).

Practical Credits: 0.5)

S.No.	Name of Practical
1	To determine the wave length of sodium light by Newton's ring method.
2	To determine the height of an object with the help of sextant.

Recommended text Books:

1. Physics text book for class XI, published by NCERT.
2. physics text book for class XII, published by NCERT.

Reference Books:

S.No.	Name of Books/Authors	Year of Publication/Reprint
1.	Physics of Vibrations and Waves, by H. J. Pain.	2005/John Wiley & Sons Ltd
2.	Vibrations and Waves, by A .P. French.	1971/CRC Press
3.	Perspective of Modern Physics, by Arthur Beiser	1981/McGraw-Hill
4.	Optics,by A. Ghatak.	2006/Tata McGraw-Hill
5.	BerkleyPhysicsCourseVol–1.	2009/Tata McGraw-Hill

COURSE: Fundamentals of Chemistry

Course Outcomes: To develop the understanding of basic chemistry and its types. To make students understand about the practical aspects of things. Students will able to identify various matters and equipment used in labs, perform some basic experiments.

UNIT I – (Overview of Physical Chemistry) (Credits: 2)
Theory (Credits: 1.5)

Solutions: Concept of homogeneous and heterogeneous solution, Introduction of the terms, Ionization, acidity, basicity, equivalent weight and gram equivalent weight with suitable example. Preparation of solution, Normality, Molarity, and Molality as applied in relation to a solution. Simple numerical problems related to volumetric analysis. Brief concept of gravimetric analysis.

Practicals: (Credit: 0.5)

S.No.	Name of Practical
1	Preparation of original solution.
2	Correct group detection
3	Cu with change in concentration of electrolytes ($CuSO_4$
4	Zn with $ZnSO_4$
5	using starch solution as indicator (clock reaction).

(Overview of Inorganic chemistry)
UNIT II (Credits: 2)
Theory (Credits: 1.5)
Occurrence and principles of extraction of aluminium, copper, zinc and Iron. position of hydrogen in periodic table, isotopes, preparation, properties and uses of hydrogen; hydrides-ionic, covalent and interstitial; physical and chemical properties of water, heavy water. Hydrogen peroxide- preparation, properties and structure; hydrogen as a fuel.Uses of hydrogen peroxide.

Practical: (Credit: 0.5)

S.No.	Name of Practical
1	Systematic detection of ion.
2	Any two confirmatory tests of cation.
3	Physical nature.
4	Flame test.
5	Charcoal cavity test.

UNIT III (Overview Organic Chemistry) (Credits: 2)
Theory (Credits: 1.5)

Stereochemistry of Organic Compounds: Concept of isomerism. Type of isomerism. **Optical Isomerism -** Elements of symmetry, molecular chirality, enantiomers, stereogeniccentre, optical activity, properties of enantiomers , chiral and acheral molecules and erythrodiastereomers, *, D & L and R & S systems of nomenclature.
Geometric Isomerism: Determination of configuration of geometric isomers. E & Z system of nomenclature. **Conformational isomerism:** Newman projection and Sawhorse formulae, Fischer and flying wedge formulae. Application of Stereochemistry in biochemistry.

Practical: (Credit: 0.5)

S.No.	Name of Practical
1	Recrystallization.
2	Melting points and Boiling point and the identification of an unknown and known compound nepthlene,Benzene
3	Molecular modelling.
4	L.S modelling.
5	Distillation, steam distillation.

Recommended text Books:
    1. P.W. Atkins, **Physical Chemistry** (7th Edition), Oxford University Press, 2006.
    2. R.T. Morrison and R.N. Boyd, **Organic Chemistry**, Prentice Hall of India Pvt. Ltd., 5th Ed, 1990

Reference Books:
    1. I. A. Levine, **Physical Chemistry**, McGrawHill, 2009
    2. D.A. McQuarrie and J.D. Simon, **Physical Chemistry – a Molecular Approach**, Viva Books Pvt. Ltd., 1998.
    3. G. Solomons and C. Fryhle, **Organic Chemistry**, John Wiley & Sons (Asia) Pte Ltd.
    4. J.D. Lee, **Concise Inorganic Chemistry**, (5th Edition), ELBS, 1996.
    5. D. F. Shriver and P. W. Atkins, **Inorganic Chemistry,** Oxford University Press, 2006.

COURSE: Fundamentals of Computers

Course Outcomes: To develop the understanding of basic computer system, what's inside the hardware and how computer works on machine level.Also, the working and use of Microsoft Office. Students will able to recognize hardware components, working of an operating system and various applications.

UNIT – I (Basics of computer System and Number System) (Credits: 2)

Theory (Credits: 1.5)

Introduction to Computer System and functions of its components, evaluation of Computers and their classification, hardware and software; Number System: Decimal, Binary, Octal and Hexadecimal and their inter conversions. Representation of integer and real numbers, characters and codes (BCD, ASCII and EBCDIC), error detecting and correcting codes (Parity, Gray and Hamming codes), binary and floating point arithmetic (addition and subtraction).

Practical (0.5Credit)

S.No.	Name of Practical
1	Demonstration of different Hardware and software components of computers.
2	Description of assembly of computer system hardware.
3	Description of the functionalities of different types of system software and application software.

Practice
Practice of number systems and codes (BCD, ASCII and EBCDIC).

UNIT – II (Boolean algebra) (Credits: 1)

Theory (Credits: 1)

Basic concepts of Boolean algebra and their electronic implementation through various logic gates, simplification of Boolean expressions (Boolean algebra and Karnaugh map method).Hard Devices and software device, CPU, Memory disks and its types.

UNIT – III (Software and MS office) (Credits: 3)

Theory (Credits: 1)
Network Basics and Internet, Concept of System software and application software, Office Automation (MS-Word, Excel and Power Point). Introduction to Data Bases, concept and architecture, Tables, Query and Report generation (MS- Access).

Practical (Credits: 2)

S.No.	Name of Practical
1	Document creation & formatting of that document
2	Create a word document and grammar & spelling checking in that document
3	Table creation in a word document and table handling
4	Find & Replace function in Microsoft word
5	Mail Merge
6	Document with multiple columns

Spreadsheet:

S.No.	Name of Practical
1	Creation of Workbook, entering data in multiple sheets, Cell referencing, charts,
2	Functions-Date & Time, Mathematical, Statistical, Look up and text

Presentation:

S.No.	Name of Practical
1	Creation of Presentation and formatting, different views of presentation,
2	layouts and templates, Master slides, Animation, Transition.

Recommended text Books:

1. Computer Fundamentals, Architecture & Organization, B.RAM, New Age International, New Delhi, 2000

References Books:

1. Microsoft Office 2000 for Windows, S. Sagman, Berkeley Peachpit Press, 1999
Fundamental of computer, V. Rajaraman, Prentice Hall India Pvt., Limited

English Communication

(Credits: 1)

Course Outcomes: To develop the understanding of communication with the practical aspects and real time reading, writing and practicing with other students. Students will able to learn communication techniques and the practice in the course will make them to see the things in real life.

Theory and Practices:

1. Greeting and introducing one and others.

2. Practice exercise: practice 15 words each for greeting and describing oneself. Practice How to talk about time and date.

3. Parts Of Speech: noun, pronoun, adjective practice exercise: read a text and identify different parts of speech.

4. Write paragraph about your friend or relative using pronoun and adjective, Modals, Conjunction and Preposition and Prepositional Phrases.

5. Practice exercise: read newspaper or any text to find different common phrases being used remember and practice them in own sentences.

6. Idioms, Other Common Phrases and Confused Words practice exercise: make sentence from confused words to understand the difference of meaning.

7. Read and write the summary of ten news in own words, speaking exercise: describing daily routine, favorite movie, novelist.

8. Write different derivational words of the words commonly used along with meaning.

9. Reading exercise. Show them some passage and ask them to read and summaries orally.

10. Practice exercise: summaries news they hear/watch on TV.

11. Group discussion practice exercise: learn how to agree or disagree with someone. Listening and watching audio visual clips.

12. Practice in language lab. Role play, Revision of all session.

Engineering Drawing Lab

(Credits: 6)

Course Outcomes: To develop the understanding of basic things used in measurements, various shapes and projections, and how sections are build and views are created. Students will able to identify the tools used in engineering drawing, use these tools.

UNIT – I (Introduction)   (Credits: 2)

Introduction: Scales, Code of practice for engineering drawing – Drawing sheets and title blocks – Types and sizes of letters – Dimensioning rules – Construction of plane curves like ellipse, parabola, hyperbola, spirals, involutes, trochoids and cycloids. Projection of Points, Lines And Planes: Projection of points – Projection of lines, lines parallel to both reference planes, lines inclined to one of the reference planes, lines inclined to both the reference planes–Projection of planes, planes inclined to one of the reference planes, planes inclined to both the reference planes.

UNIT – II (Projection of Solids)   (Credits: 2)

Projection of Solids: Classification of solids - Projection of solids in simple positions, with axis inclined to one of the reference planes and with axis inclined to both the reference planes. Auxiliary Projection: Introduction– Auxiliary Projection of points, lines and solids - with axis inclined to one of the reference planes and with axis inclined to both the reference planes.

UNIT – III (Section of Solids and Development of Surfaces)   (Credits: 2)

Section of Solids and Development of Surfaces: Sectional views, section planes, perpendicular to VP and inclined to HP, section planes perpendicular to HP and inclined to VP – True shapes of sections, Development of surfaces: Method of development – Parallel line development – radial line development.

Recommended Text Books:

1. Machine drawing, P. S. Gill, Delhi : S.K. Kataria& Sons , 2001

Reference Books:
1. Engineering drawing [Plane and Solid Geometry in First-Angle Projection Method] by N. D. Bhatt Revised and Enlarged by V. M. Panchal, Charotar Publication, Anand, Gujarat
2. Machine Drawing, by N. D. Bhatt, Charotar Publication, Anand, Gujarat
3. Engineering Graphics, John K.C. and Varghese, Jet Publications, Thrissur, 1998.
4. Engineering Drawing and Graphics +Auto CAD, Venugopal, K., New Age International (P) Ltd., New Delhi, 1998.

II SEMESTER
Course: Mathematics-II

Course Outcomes: To develop the understanding of algebra and equations to write and understand basic proofs. Develop and maintain problem-solving skills. Use mathematical ideas to model real-world problems. Be able to communicate mathematical ideas with others.

UNIT-I (Linear Algebra) (Credits: 2)
Theory (Credits: 1.5)

Vectors in *Rn*, notion of linear independence and dependence, linear span of a set of vectors, vector subspace of *Rn*, basis of vector subspaces. Systems of linear equations, matrices and Gaussian elimination, row space, null space, and column space, rank of a matrix; Determinants and rank of a matrix in terms of determinants. Abstract vector spaces, linear transformations, matrix of a linear transformation, change of basis and similarity, rank-nullity theorem, Inner product spaces.

Practice (0.5)

Practice of Vectors, linear Equations, Matrix and Determinants.

UNIT-II(Abstract Algebra) (Credits: 2)
Theory (Credits: 1.5)

Basic Knowledge of abstract algebra, Groups, Sub groups, Rings, Fields, Vector Space, Sub space,Eigen values and Eigen vectors, characteristic polynomials, Eigen values of special matrices (orthogonal, unitary, hermitian, symmetric, skew-symmetric, normal). Algebraic and geometric multiplicity, diagonalization by similarity transformations, spectral theorem for real symmetric matrices, application to quadratic forms

Practice (Credits: 0.5)

Practice of Eigen Values, Polynomials and spectral theorems.

UNIT-III(Differential Equations) (Credits: 2)
Theory (Credits: 1.5)

Exact equations, integrating factors and Bernoulli equations.Orthogonal trajectories.Lipchitz condition, Picard's theorem, examples on no uniqueness. Linear differential equations generalities, Linear differential equations and Wornskians Dimensionality of space of solutions, Abel-Lowville formula, Linear ODEs with constant co-efficient, the characteristic equations, Cauchy Euler equations, Method of undetermined coefficients. Method of variation of parameters, Laplace transformation and generalities, shifting theorems, Convolution theorem.

Practice (Credits: 0.5)

Practice of bernaullis equations, linear differential equations and Laplace transformations.

Recommended text Books:

1. H. Anton, **Elementary Linear Algebra with Applications** (8th Edition), John-Wiley & Sons, 1995.
2. G. Strang, **Linear Algebra and its Applications** (4th edition), Thomson, 2006.

Reference Books:

1. S. Kumaresan, **Linear Algebra: a Geometric Approach**, Prentice Hall of India, 2000.
2. E. Kreyszig, **Advanced Engineering Mathematics** (8th Edition), John Wiley & Sons, 1999.
3. W.E. Boyce and R. Diprima, **Elementary Differential Equations** (8th Edition), John Wiley & Sons, 2005.

COURSE: Physics- II

Course Outcomes: ThiscoursegivesabalanceaccountofthefundamentalsofPhysicsaswellassomeofrecentdevelopments inthisareabestsuitedtothe Engineering applications in different branches and to provide the knowledge and methodology necessary for solving problems in the field of engineering.

UNIT-I (Credits: 2)
Theory (Credits: 1.5)

Quantum Physics: Failure of classical physics, Compton effect, Pair production, de-broglie relation, wave function, Probability density,Schrodinger wave equation, operators, expectation values and eigen-value equation, particle in a box, simple harmonic oscillator problem, concept of degeneracy.
QuantumStatistics: Fermi—DiracandBose–EinsteinDistribution,Fermi-Diracprobabilityfunction, Fermi energy level.

Practical (Credits: 0.5)

S.No.	Name of Practical
1	Study Characteristics of Zener Diode.
2	Study Characteristics of Semiconductor Diode.
3	Study the Charging of a Condenser and hence determine time constant.
4	To deter mine the specific resistance of a material and determine difference between two small resistances using carry foster's bridge.

UNIT-II (Credits: 2)
Theory (Credits: 1.5)

Classical Statistics: Microscopic-macroscopic systems, concept of phase space, basic postulates of statistical mechanics, Maxwell—Boltzmann distribution law.
Electrodynamics: Maxwell's equations, concept of displacement current, Derivation of wave equation for plane electromagnetic wave, Poynting vector. Poynting theorem, Energy density, wave equation indielectric & conducting media.

Practical (Credits: 0.5)

S.No.	Name of Practical
1	Study Electromagnetic induction and verify faraday's law.
2	To convert a galvanometer into an ammeter

UNIT-III Credits: 2)
Theory   (Credits: 1.5)

Nuclear Physics: Nuclear properties, constituent of the nucleus, binding energy, stable nuclei, radioactive decay law (alpha and beta spectrum), Q-value of nuclear reaction , nuclear models: liquid dropandshellmodel,nuclearfissionandfusion,elementaryideasofnuclearreactors.

Semiconductor Physics: Concept of intrinsic and extrinsic semiconductors, Fermi level, characteristics of PN Junction, static and dynamic resistance, zenar diode and LED, diode as a rectifier, transistor (PNP and NPN) characteristics, current and voltage gain.

Practical (Credits: 0.5)

S.No.	Name of Practical
1	To determine modular of rigidity of a wire using Maxwell's needle.
2	To convert a galvanometer in a voltmeter.

Recommended text Books:

1. Physics text book for class XII, published by NCERT.
2. Satyaprakash, Electricity and Magnetism, Published by Pragati Prakashan (Meerut)

Reference Books:

S.No.	Name of Books/Authors	Year of Publication/Reprint
1.	Nuclear Physics, by Erwin Kaplan	2002/Narosa
2.	Concept of Nuclear Physics, by Bernard Cohen	2001/McGraw-Hill
3.	Perspective of Modern Physics, by Arthur Beiser	1969/McGraw-Hill US
4.	Electro dynamics, by Griffith	2012/PHI Learning
5.	Electricity & magnetism, by Rangawala & Mahajan.	2012/McGraw-Hill

COURSE: Programming in C

Course Outcomes: The course is designed to provide complete knowledge of C language. Students will be able to develop logics which will help them to create programs, applications in C. Also by learning the basic programming constructs they can easily switch over to any other language in future.

UNIT – I (Computer programming and Control Statements and Functions) (Credits: 2)
Theory (Credits: 1.5)
Steps involved in computer programming, problem analysis, algorithms & flow charts, High level and low level programming languages. Computer programming (in C): various data types and their representation, constants and variable, arithmetic and logical expressions, data assignments, input and output statement. Programming: Control statement- sequencing, conditional and unconditional branching and looping, single and multi-dimensional arrays. User defined functions, parameter passing, and recursion.

Practical (Credits: 0.5)

S.No.	Name of Practical
1	Programs based on arithmetic expressions addition, subtraction,
2	Programs based on arithmetic expressions multiplication, division,
3	Programs based on swapping the values of variables.
4	Programs based on area of circle.
5	Programs based on area of square and rectangle by user defined input
6	Programs based on area of triangle with the with both float and integer data types.
7	Programs based on area of cube by user defined input.
8	Programs based on volume of cylinder by user defined input.
9	Programs based on logical expressions.
10	Programs based on conditional statement (if, if…..else)
11	Programs based on conditional statement nested if…..else).
12	Programs based on relational operators.
13	Programs based on looping statement (for loop,
14	Programs based on looping statement (while loop and do…..while loop).
15	Programs based on array (1-Dimensional and 2-Dimensional) and array operations.
16	Programs based on string operations.
17	Programs based on functions.
18	Programs based on conditional statement (if, if…..else)

UNIT – II (Pointers and Memory Allocation) (Credits: 2)
Theory (Credits: 1.5)
Pointers: Definition and uses of pointers, memory allocation, pointers and array, pointers and functions. Structures, union, pointers to structures, enumeration.String manipulations. Pointers operators, pointer arithmetic, Pointers Jand function, Array of pointers, Pointer and Strings, Pointer to structure, Pointers within structure, Introduction of Static and Dynamic memory allocation, The process of Dynamic memory allocation, DMA functions Malloc() function, Size of() operator, Function free(), Function realloc()

Practice (Credits: 0.5)

S.No.	Name
1	Practice of Examples based on Recursion and looping,
2	Practice of Examples based on operators (Arithmetic, relational and relational).
3	Practice of Examples based on functions.
4	Programs based on Pointers.
5	Programs based on String Operations.
6	Program based on Structure.
7	Program based on union.
8	Write a programs using Pointer Operators
9	Write a programs using pointer and function
10	Write a programs using array of Pointer
11	Write a programs using pointers of pointers
12	Write a programs execute Malloc(), Malloc(),Realloc(),free()Function.

UNIT – III (File Handling and Graphics) (Credits: 2)
Theory (Credits: 1.5)

File structure, File handling function, File types, Streams, Text, Binary, File system basics, The file pointer, Opening a file, Closing a file, Writing a character, Reading a character, Appending a character Working with string fputs() and fgets(),Data files: Opening, closing, creating, processing and unformatted data files. Standard streams in C, Flushing a stream, , Direct access file, random access I/O, fprintf() and fscanf(), getting file name as Command line arguments.

Graphics and Text mode, Video Adapter, Initialize Graphics Mode and resolution, header file graphics.h. Functions used In Graphics – Drawing a Point on Screen, Drawing – lines, rectangle, circles, arcs, polygon. Functions to fill colors. Display Text in Graphics mode, out text (), outtextxy(), justifying text.

Practical (Credits: 0.5)

S.No.	Name of Practical
1	Write a Program to open a file
2	Write a Program to Writing a Character in file
3	Write a Program to Reading a Character in file
4	Write a Program to appending a Character in file
5	Write a Program to closing a file
6	Write a programs using String functions strlen(), strcpy, strcmp(),strlwr(),strupr(), strchr(), strcat().
7	Write a programs using fprintf(), fscanf(), getc(), putc(), fgetc(), fputc(), fseek(), feof() functions
8	Write a Program to Draw a Point on Screen
9	Write a Program to Draw lines
10	Write a Program to Draw Rectangle
11	Write a Program to Draw Circle
12	Write a Program for Draw Arcs and polygon

Recommended text Books:
1.   YashwantKanetkar, **Let us C**. Allied Publishers, 1998.
2.   B. Godefriod, "Programming in C ", Schaum Series.
Reference Books:
G.Dromey, **How to Solve It by Computer**, Prentice-Hall, Inc., Upper Saddle River, NJ, 1982

COURSE: Basics of Electrical & Electronics Engineering

Course Outcomes: To introduce the students about domestic wiring, the functioning of various electrical apparatus and the safety measures. Emphasize the effects of electric shock and precautionary measures. To impart basic knowledge of electrical quantities such as current, voltage, power, energy and frequency to understand the impact of technology in a global and societal context. To provide knowledge about the basic DC and AC electric circuits and magnetic circuits. To introduce the concepts of generators, motors, transformers and their applications.

Unit –I – Circuit Theory (Credits: 2)
Theory (Credits: 1.5)
Introduction to Circuit Theory: Basic physical laws –Ohm's law, Coloumb's Law, Farady's Law. Basic circuit elements –Active Element, Passive Element and its Application. Kirchhoff's voltage law (KVL), Kirchhoff's current law (KCL) .Circuit Theorem: - Superposition Theorem, Thevenin's Theorem, Norton's Theorem and maximum Power Transfer theorem.
Lab Experiments: Credits: 0.5)
1. Basic study of symbols used in Electrical Lab.
2. Basic study of tools used in Electrical Lab.
3. Study and verification of Ohm's Law.
4. Study and verification of Kirchhoff's Law.
5. Study and verification of Superposition Theorem.
6. Study and verification of Thevenin's theorem.
7. Study of different types of Passive Components.

Unit –II– Semiconductors (Credits: 2)
Theory Credits: 1.5)
Introduction to Semiconductor Physics:-Insulator, Conductor, Semiconductor, Intrinsic Semiconductor, Extrinsic Semiconductor. Introduction to diodes, types of diode:- P-N Diode, Zener Diode, LED, Photo Diode, Varactor Diode and their applications. Rectifiers, Types of Rectifier: - Half wave Rectifier, full wave Rectifier, Bridge Rectifier.

Lab Experiments: (Credits: 0.5)
1. Basic study of Domestic house wiring and stair case wiring.
2. Study of different types of lamps.
3. Practice of Soldering
4. Practice of Finding Faults in Equipments

Unit –III– Transformer (Credits: 2)
Theory (Credits: 1.5)
Measuring Instruments:-Introduction and working principle and Application of ammeter, voltmeter (shunt and multiplier), Two-wattmeter method, Cathode-ray Oscilloscope.
Transformer: - Introduction, Working Principle, Autotransformer, Losses in Transformer, Phasor Diagram, Equivalent Circuit, Application.

Lab Experiments: (Credits: 0.5)
1.   Study of Single Phase Transformer.
Recommended Text Books:
1.   K.A. Krishnamurthy and M.R. Raghuveer, **Electrical and Electronics Engineering for Scientists**, Wiley Eastern Ltd., 1993.
Reference Books:
1. L. S. Bobrow, **Fundamentals of Electrical Engineering**(2nd edition), Oxford University Press, New Delhi
2. Vincent Del Toro, **Electrical Engineering Fundamentals**, Prentice Hall, 1989.

COURSE: Entrepreneurship Development

Course Outcomes: The objective of the course is, further on, that the students develop the ability of analyzing various aspects of entrepreneurship – especially of taking over the risk, and the specificities as well as the pattern of entrepreneurship development and, finally, to contribute to their entrepreneurial and managerial potentials.

UNIT I (The Entrepreneur)   **(Credits: 2)**
Introduction: The Entrepreneur: Definition, Emergence of Entrepreneurial Class; Theories of Entrepreneurship. Characteristics of an Entrepreneur – Why Start an Enterprise; Entrepreneur as an Inventor, Innovator, and Imitator; Difference Between an Entrepreneur and A Manager; Functions of an Entrepreneur; Types of Entrepreneurs; Entrepreneurial Characteristics & Skills. Disadvantages of Being an Entrepreneur.

UNIT II (Promotion of Venture &Opportunity Analysis)   **(Credits: 2)**

Promotion of a Venture: Opportunity Analysis; External Environmental Analysis Economic, Social and Technological; Competitive factors; Legal requirements of establishment of a new unit and Raising of Funds; Venture Capital Sources and Documentation Required. Entrepreneurial Behavior: Innovation and Entrepreneur; Entrepreneurial Behaviour and Psycho theories, Social responsibility. Entrepreneurial Development Programmes (EDP): EDP, Their Role, Relevance and Achievements; Role of Government in Organizing EDP's Critical Evaluation.

UNIT III   **(Credits: 2)**
Theory Role of Entrepreneur: Role of an Entrepreneur in Economic Growth as an Innovator, Generation of Employment Opportunities, Complimenting and Supplementing Economic Growth, Bringing about Social Stability and Balanced Regional Development of Industries: Role in Export Promotion and Import Substitution, Forex Earnings.

Recommended Text Book:
1. Hisrich, Robert and Peters, Michael, (2002), Entrepreneurship, 5th Edition, McGraw Hill Education.
2. Charantimani, (2006), Entrepreneurship Development and Small Business Enterprise, 1st edition, Pearson Education.

Reference Books::
1. Chandra, Ravi, (2003), Entrepreneurial Success: A Psychological Study, Sterling Publication Pvt. Ltd., New Delhi.
2. Balaraju, Theduri, (2004), Entrepreneurship Development: An Analytical Study, Akansha Publishing House, New Delhi.
3. David, Otes, (2004), A Guide to Entrepreneurship, Jaico Books Publishing House, Delhi.
4. Kaulgud, Aruna, (2003), Entrepreneurship Management, Vikas Publishing House, Delhi.

III SEMESTER

COURSE: ECONOMICS (Credits: 5.5)

Course Outcomes: To develop a theoretical understanding of economics and microeconomics, customer behavior, various laws which are implemented in real life scenario and market situations.

Unit: I (Introduction to Economics)
(Credits: 2.5)
Introduction: Definition, nature and scope of economics, introduction to micro and macroeconomics; Microeconomics: Consumer behavior, cardinal and ordinal approaches of utility, law of diminishing marginal utility, theory of demand and supply, law of demand, exceptions to the law of demand, change in demand and change in quantity demanded, elasticity of demand and supply, Indifference curve, properties, consumer equilibrium, Price and income effect;

Unit: II (Production and Various laws)
(Credits: 1.5)
Production: Law of production, production function, SR and LR production function, law of returns, Isoquant curve, characteristics, Is cost, producer's equilibrium; Cost and revenue analysis: Cost concepts, short run and long- run cost curves, TR,AR,MR;

Unit: III (Market Situations)
(Credits: 1.5)
Various market situations: Characteristics and types, Break-even analysis; Macro Economics: National Income, Monetary and Fiscal Policies, Inflation, demand and supply of money, consumption function and business cycle.

Recommended Books & References:
1. H.L Ahuja, *Macroeconomics Theory and Policy*, (20e) S. Chand Publication.
2. Peterson H C et.al.,*Managerial Economics*, (9e), Pearson, 2012
3. P L Mehta, *Managerial Economics*, Sultan Chand & Sons, New Delhi, 2012.
4. G J Tuesen & H G Tuesen, *Engineering Economics*, PHI, New Delhi, 2008.
5. J. L. Riggs, D. D. Bedworth, S. U. Randhawa, *Engineering Economics*, Tata McGraw Hill, 2018.

COURSE: ENGINEERING MATHEMATICS III
(Credits: 6)

Course Outcomes: To develop the understanding of Boolean algebra, calculus and graph theory and their uses that where we can apply these methods. Students will be able to do mathematical operations.

Unit: I (Boolean algebra)
(Credits: 1)

Boolean algebra: Partial ordering relations, Poset, Lattices, Basic Properties of Lattices. Distributive and complemented lattices, Boolean lattices and Boolean Algebra.

Unit: I (Calculus)
(Credits: 2.5)

Propositional and Predicate Calculus: Well-formed formula, connectives, quantifications, Inference theory of propositional and predicate calculus. Elementary configuration: Permutations and Combinations, Generating function, Principle of inclusion and exclusion Partitions, compositions. Ordering of permutations: Lexicographical and Fikes.

Unit: I (Graph Theory)
(Credits: 2.5)

Graph theory: Basic definitions, Degree, regular graphs, Eulerian and Hamiltonian graphs, Trees and Properties, Centre, radius and diameter of a graph, Rooted and binary trees, Matrices associated with graphs, Algorithms for finding shortest path, Algorithm. Group theory: Semi groups, Monoids, Groups subgroups, Normal Subgroups, Cosets, Lagrange's Theorem, Cyclic groups.

Recommended Books & References:
1. C. L. Liu, *Elements of Discrete Mathematics, (2e)*, Mc Graw Hill, New Delhi, 2007.
2. J. P. Trembaly and R. Manohar, *Discrete Mathematics Structures with application to computer science*, Tata Mc Graw Hill, 2012.
3. E. S. Page and L. B. Wilson, *An Introduction to Computational Combinatorics*, Cambridge Univ. Press, 1979.
4. N. Deo, *Graph theory withApplications to computer science*, PHI, 2012.

COURSE: DATA COMMUNICATIONS
(Credits: 6)

Course Outcomes: To develop the theoretical understanding of communications and networking, Signal encoding and data link control protocols. Student will able to learn about various applications of communications through the network.

Unit: I (Introduction)
(Credits: 2)

Introduction: Data communications, Networks, Network types, Standards. Protocol Layering: Protocol, Need for protocol architecture, OSI Model, TCP/IP protocol architecture. Data Transmission: Concepts and terminology, Analog and digital data transmission, Transmission impairments, Channel capacity, Transmission Media: Guided transmission media, Wireless transmission, Wireless propagation, Line-of-Sight transmission.

Unit: II (Signal Encoding Techniques)
(Credits: 2)

Signal Encoding Techniques: Analog and digital Signals, Digital-to-digital conversion: Line coding schemes, Block coding, scrambling, Analog-To-Digital Conversion: Pulse code modulation, Delta modulation. Digital Data Communication Techniques: asynchronous and synchronous transmission, Types of errors, Error detection, Error correction, Line configurations.

Unit: III (Data Link Control Protocols)
(Credits: 2)

Data Link Control Protocols: Flow control, Error control, High-level data link control. Multiplexing: Frequency-division multiplexing, Time-division multiplexing, Code-division multiple access.Space division multiplexing. Multiple Accesses: Random access, Aloha, Carrier senses multiple access, Carrier sense multiple access with collision detection, Carrier sense multiple access with collision avoidance, Code-division multiple access.

References:
1. B. Forouzan, *Data Communication & Networking,* (5e), McGraw Hill Education, 2013.
2. W. Stallings, *Data and Computer Communications*, (10e), Pearson Education,2018.

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COURSE: COMPUTER SYSTEM ARCHITECTURE
(Credits: 6)

Course Outcomes: To develop the understanding about the computer architecture, its basic structure and models, working of logical and arithmetic units in the computer system. Students will be able to recognize the devices and able to perform operations on it.

Unit: I (Digital Logic Circuits)
(Credits: 2)

Digital Logic Circuits: Logic Gates, Boolean algebra, Map Simplification, Combinational Circuits, Flip-Flops, Sequential Circuits. Digital Components: Integrated Circuits, Decoders, Multiplexers, Registers, Shift Registers, Binary Counters, Memory Unit.

Unit: II (Basic Structure of Computers)
(Credits: 2)

Basic Structure of Computers: Computer Types, Functional Units, Basic Operational Concepts, Software, Performance. Machine Instructions and Programs: Numbers, Arithmetic Operations and Characters, Memory Locations and Addresses, Instructions and Instruction Sequencing, Addressing Modes, Assembly Language, Additional Instructions, Encoding of Machine Instructions.

Unit: III (Arithmetic)
(Credits: 2)

Arithmetic: Addition and Subtraction of Signed Numbers, Design of Fast Adders, Multiplication of Positive Numbers, Signed Operand Multiplication, Fast Multiplication, Integer Division, Floating Point Numbers and Operations.

Recommended Books & References:

1. M. Morris Mano, *Computer System Architecture*, (3e), Pearson, 2017.
2. C. Hamacher, Z. Vranesic, S. Zaky, *Computer Organization and Embedded Systems*, (6e), McGraw Hill, 2012.
3. J. P. Hayes, *Computer Architecture and Organization*, (3e), McGraw Hill TMH, 2012.

COURSE: DATA STRUCTURES & ALGORITHMS

(Credits: 6)

Course Outcomes: To develop the understanding about the theoretical and practical aspects of various algorithms and data structures used in the computer systems.Also, the relation between data structures and algorithms.

Theory: (Credits: 4.5)
Unit: I (Introduction)
(Credits: 1.5)

Introduction: Data structures classification, time and space complexity, pointers and pointer applications, Accessing variables through pointers, structures, functions. Array: introduction, Linear array, representation of an array in memory, multi-dimensional arrays, pointer arrays, matrix operations.
Linked Lists: Introduction, single linked list, representation of a linked list in memory, Different Operations on a Single linked list, reversing a single linked list, Advantages and disadvantages of single linked list, circular linked list, doubly linked list and Header linked list.

Unit: II (Applications of Algorithms)
(Credits: 1.5)
Applications: polynomial operations and Josephus problem. Stacks: Basic Stack Operations, implementation of a Stack using Static Array, Dynamic Array and linked list, Multiple stack implementation using single array, Stack Applications, Reversing list, Factorial Calculation, Infix to postfix conversion, evaluation of Arithmetic Expressions and Towers of Hanoi. Queues: Basic Queue Operations, Representation of a Queue using array and linked list, Implementation of Queue Operations using Stack, Applications of Queues, Round Robin Algorithm, Circular Queues, Dequeues, Priority Queues.

Unit: III (Trees and Graphs)
(Credits: 1.5)
Trees: Definition of tree, Properties of tree, Binary Tree, Representation of Binary trees using arrays and linked lists, Operations on a Binary Tree, threaded binary tree, Binary Tree Traversals (recursive and using stack), Binary search tree, AVL tree, m-way tree, B-tree, B+ tree Graphs: Basic concepts, Different representations of Graphs, Graph Traversals (BFS & DFS), Minimum Spanning Tree (Prims & Kruskal). Searching Techniques: Sequential and binary search. Hashing: Hash function, Address calculation techniques, and Common hashing functions, Collision resolution, Linear and Quadratic probing, Double hashing. Sorting Techniques: Basic concepts, Sorting by: bubble sort, Insertion sort, selection sort, quick sort, heap sort, merge sort, radix sort.

Practical:
(Credits: 1.5)

1. Implementation of array operations: insertion, deletion, linear search and binary search, matrix operation.
2. Implementation of singly, doubly and circular linked lists: inserting, deleting, and inverting a linked list, Polynomial addition, subtraction and sparse matrix implementation by linked list, Josephus problem.
3. Stacks and Queues: adding, deleting elements.
4. Circular Queue: Adding & deleting elements, conversion of infix to postfix and Evaluation of postfix expressions using stacks & queues, Implementation of stacks & queues using linked lists.
5. Recursive and Non-recursive traversal of Trees: Threaded binary tree traversal, BST and AVL tree implementation.
6. Implementation of sorting and searching algorithms: bubble sort, Insertion sort, selection sort, quick sort, heap sort, merge sort, radix sort, Hash table implementation.

Recommended Books & References:

1. A. S. Tannenbaum, J. Augenstein, *Data Structures using C*, Pearson India, 2018.
2. E. Horowitz, S. Sahni, *Fundamentals of Data Structures in C*, (2e), Universities Press, 2008.
3. A. Forouzan, R. F. Gilberg, *A Structured Programming Approach Using C*, (3e), Cengage Learning, 2006.

COURSE: OBJECT ORIENTED PROGRAMMING

(Credits: 6)

Course Outcomes: To develop the understanding of object oriented programming with the fundaments and how these work with the input and output flows, exception handling and multithread programming.

Unit: I (Introduction)   **(Credits: 1.5)**

The History and Evolution of object-oriented technology: benefits of object-oriented programming (OOP), application of object-oriented programming (OOP), introduction to object-oriented programming language like Java, C# and C++.

Unit: II (Programming Fundamentals)   **(Credits: 2)**

Programming Fundamentals: Control flow statements, operators, datatypes, Type conversion, Wrapper Classes, Arrays. Introduction to classes: Class fundamentals, declaring objects, Assigning Object reference variables, Introduction to methods, Constructors, Method Overloading, objects as parameters, argument passing, returning objects, recursion, access control, final, nested and inner classes.

Unit: III (I/O Basics)   **(Credits: 2.5)**

I/O Basics: Reading Console Input, Writing Console Output, Files handling. Inheritance: base and derived class, multilevel hierarchy, access modifier in inheritance, method overriding, abstract classes. Exception Handling: Exception types, creating exception, Try Catch construct, Throw and throws keyword. Multithreaded programming: Creating and running threads, synchronise methods, inter thread communication, suspending, resuming and stopping thread.

Practical: **(Credits: 1.5)**

1. Introduction to object-oriented programming language: Basic programming construct, flow control, loops, data type and arrays.
2. Introduction to classes and object: creating class and object, using object to access class members, declaring method in class, recursion, argument passing and returning, declaring constructor, constructor overloading and method overloading.
3. Input-output: Basic technique for input and output, type casting, file handling.
4. Inheritance: creating base class and derive class, use of different access modifier, overriding base class methods, creating abstract classes/interfaces.
5. Exception handling: try catch construct, creating own exception, raising exception.
6. Multi thread programming: creating and running thread, stopping thread, use of wait, inter thread communication.

Recommended Books & References:

1. M. Weisfeld, *The object-oriented thought process*, (4e), Pearson, 2013.
2. H. Schildt, *The Complete Reference Java*, (10e), Oracle Press, 2018.
3. C. Horstmann, *Core Java Volume I—Fundamentals*, (10e), Prentice Hall, 2006.
4. H. Schildt, *The Complete Reference C++*, (4e), Mcgraw Hill, 2003.

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B.Tech Syllabus
IV SEMESTER

COURSE: VALUE, ETHICS & GOVERNANCE
(Credits: 5.5)

Course Outcomes: To develop the understanding of value education, basic human nature and behaviors, the governance system and roles of particulars, and about corporate social responsibilities.

Unit-1 (Relevance of Value Education)   (Credits: 2)
Relevance of Value Education in day-to-day life.Mantra for success - Value, Moral and Ethics.Determinants of human nature (Three Gunas) and its impact on human life.Relevance of Personality, Attitude, Behavior, Ego, Character, introspection, Motivation, Leadership and 4 Qs with relevant Case Studies*.

Unit-2 (Governance)   (Credits: 2)
Governance: Understanding of Public and Private sector Governance systems; Courts & CAG. Public Sector Governance: Need, relevance, stakeholders. Private Sector Governance: Proprietary, Partnership, Company (Pvt Ltd & Ltd), Company' Act 2013, Board of Directors; its Roles and Responsivities.Regulatory bodies; its role in ethical governance.Projects on PPP mode-relevance & prospects.

Unit-3 Corporate Social Responsibility   Credits: 1.5)
CSR: Relationship with Society, Philanthropy and Business strategy, CSR Policy, Triple Bottom Line. Suggestive Case Studies: Uphar Theatre Tragedy- Engineering Ethics, Bhopal Gas Tragedy- Operational Engineering Ethics, Satyam Case- Financial Reporting Ethics, Enron Case- Business Ethics, Navin Modi Case- Financial Fraudulence.

Recommended Books & References:
1. Professional Module of ICSI.
2. Ghosh B.N., *Business Ethics & Corporate Governance*, (1e) McGraw Hill, 2011.
3. Mandal S.K., *Ethics in Business & Corporate Governance*, (2e), McGraw Hill, 2012.
4. Ray C.K., *Corporate Governance, Value & Ethics*, Vaya Education of India, 2012.
5. Chatterjee Abha, *Professional Ethics*, (2e) Oxford Publications.

COURSE: ENGINEERING MATHEMATICS IV

(Credits: 6)

Course Outcomes: To develop the understanding of basic set theory, distributions in mathematics and some tests like Chi square which is used in testing and sampling algorithms.

Unit-1 (Basic Set theory)   **(Credits: 2)**

Basic Set theory, Axioms of probability, Sample space, conditional probability, total probability theorem, Baye's theorem. One dimensional and two dimensional random variables, mean and variance, properties,

Unit-2 (Correlations and Distributions)   **(Credits: 2)**

Chebyschev's inequality, correlation coefficient,Distributions, Binomial, Poisson, Normal and Chisquare. Functions of random variables: One dimensional and Two dimensional, F & T distributions , Moment generating functions,

Unit-3 Sampling theory and various tests   **(Credits: 2)**

Sampling theory, Central limit theorem, Point estimation, MLE, Interval estimation, Test of Hypothesis : significance level, certain best tests; Chi square test.

Recommended Books & References:
1. P. L. Meyer, *Introduction to probability and Statistical Applications*, (2e), Oxford and IBH publishing, 1980.
2. Miller, Freund and Johnson, *Probability and Statistics for Engineers*, (8e), PHI, 2011.
3. Hogg and Craig, *Introduction to mathematical statistics*, (6e), Pearson education, 2012.
4. S. M. Ross, *Introduction to Probability and Statistics for Engineers and Scientists*, Elseveir, 2010.

COURSE: OPERATING SYSTEMS
(Credits: 6)

Course Outcomes: To develop the understanding of operating systems, processes run in the background, memory management, and scheduling and file management theoretically and practically.

Theory (Credits: 4.5)
Unit-I(Introduction to operating systems)

(Credits: 1.5)

Introduction: Definition of operating systems, Single and multi-processor systems, Operating system Services, System commands and system calls, Interrupt, System boot. OS Structure: Simple, Layered, Microkernel, Hybrid, Modules, Types of OS, Multi-user, Multitasking, Embedded, Real-time, Network, Distributed. Virtualization: Introduction, Hypervisor, Data center, Virtual data center, VMware virtualization products.

Unit-II(Process and threads) **(Credits: 1.5)**

Process and Thread: Process concept, Operations on processes, Inter-process communication, UNIX pipes, Multithreading, Multithreaded models, PThread API. Process Scheduling: Basic concepts, Scheduling criteria, Scheduling algorithms. Synchronization: Critical section problem, Peterson solution, Synchronization hardware, Semaphores, Classical problems of synchronization, Deadlock, Methods for handling deadlock.

Unit-III(Memory and File system management) **(Credits: 1.5)**

Memory Management: Swapping, Contiguous memory allocation, Paging, Structure of Page Table, Segmentation, Demand Paging, Page Replacement Policies, Allocation of Frames, Thrashing. File System Interface and Implementation: File Concept, Access Methods, Directory and Disk Structure, File System Mounting, File System Structure, File System Implementation, Allocation Methods, Free Space Management. Disk Management: Disk Scheduling Algorithms, Disk Management, Swap Space Management.

Practical **(Credits: 1.5)**
1. Basic Linux commands: Illustration of shell functions, wild cards, redirection, pipes, sequencing, grouping, background processing, command substitution, sub shells, Shell programming.
2. System Calls: File and process, I/O Redirection, IPC using Pipe and Signals.
3. PThread API: Multithreaded programs, Synchronization programs using PThreads and Semaphores, CPU Scheduling, Deadlock, Memory Management.
4. Creating a Virtual Machine: Virtual Machine Files and Snapshots, Virtual Machine Cloning and Exporting.

Recommended Books & References:
1. A. Silberschatz, P. B. Galvin, G. Gagne, *Operating System Concepts*, (9e), Wiley, 2014.
2. A.S. Tanenbaum, H. Bos, *Modern Operating Systems*, (4e), Pearson, 2015.
3. W. Stallings, *Operating Systems: Internals and Design Principles*, (9e), Pearson, 2018.

COURSE: RELATIONAL DATABASE MANAGEMENT SYSTEMS

(Credits: 6)

Course Outcomes: To develop the understanding of database management systems, schemas, various models related to relational databases, SQL and designing of relational database systems theoretically and practically.

Theory (Credits: 4.5)
Unit-I(Introduction to Database)   **(Credits: 1)**
Introduction: Database systems, RDBMS Definition, data models, 3-schema architecture, challenges in building RDBMS, different components of a RDBMS. Relational Data Model: Concept of relations and its characteristics, schema-instance, integrity constraints, E/R Model, Extended E/R Model, converting the database specification in E/R and Extended E/R notation to the relational schema.

Unit-II(Relational Query Language)   **(Credits: 1.5)**
Relational Query Language: Relational Algebra operators- selection, projection, cross product, various types of joins, division, example queries, tuple relation calculus, domain relational calculus, introduction to SQL, data definition in SQL, table and different types of constraints definitions, data manipulation in SQL, nested queries, notion of aggregation.

Unit-III(Relational Database Design)   **(Credits: 2)**
Relational Database Design: functional dependencies and Normal forms, Armstrong's axioms for FD's, closure of a set of FD's, minimal covers, definitions of 1NF, 2NF, 3NF and BCNF, decompositions and desirable properties of them, algorithms for 3NF and BCNF normalization, multi-valued dependencies and 4NF. Transaction Processing: concepts of transaction processing, ACID properties, concurrency control, locking based protocols, recovery and logging methods. Data Storage and Indexing: file organizations, primary, secondary index structures, hash-based indexing, dynamic hashing techniques, multi-level indexes, B-tree and B+ trees.

Practical   **(Credit: 1.5)**
1. Introduction to SQL and its different command categories i.e. DDL, DML, DQL and DCL,
2. Data Integrity Constraints and Built-in Functions,
3. Design and implementing the data requirements of a simple DB application,
4. Experiments on views, indexing, triggers, stored procedures, transaction.

Recommended Books & References:
1. A. Silberschatz, H. F. Korth, S. Sudarshan, *Database System Concepts*, (6e), McGraw Hill, 2013.
2. R. Elmasri, S. B. Navathe, *Fundamentals of Database Systems*, (6e), Addison-Wesley, 2010.
3. R. Ramakrishnan, J. Gehrke, *Database Management Systems*, (3e), McGraw Hill, 2014.
4. I. Bayross, *SQL, PL/SQL The Programming Language of Oracle*, (4e), BPB Publications, 2010.
5. C. J. Date, *An Introduction to Database Systems*, (8e), Prentice Hall of India, 2006.

COURSE: COMPUTER ORGANIZATION

(Credits: 6)

Course Outcomes: To develop the understanding of computer organization, processor data path and controls, pipelining and various clustering methods, memory organization and multithreading in hardware.

Unit-I(Processor datapath and control)

(Credits: 1.5)

Processor Datapath and Control: Logic Design Conventions, Building a Datapath, Implementation Schemes, Exceptions, Microprogramming.

Unit-II(Pipelining and Memory Hierarchy)

(Credits: 2)

Pipelining: Overview, Pipelined Datapath, Pipelined Control, Data Hazards and Forwarding, Data Hazards and Stalls, Branch Hazards. Memory Hierarchy: Basics of Caches, Measuring and Improving Cache Performance, Virtual Memory, Address Translation.

Unit-III(Storage and other peripherals)

(Credits: 2.5)

Storage and Other Peripherals: Disk Storage and Dependability, Networks, Connecting I/O Devices to Processor and Memory, Interfacing I/O Devices to the Memory, Processor, and Operating System, I/O Performance Measures, Redundant Array of Inexpensive Disks. Multicores, Multiprocessors and Clusters: Shared Memory Multiprocessors, Clusters and other Message-Passing Multiprocessors, Hardware Multithreading, SISD, MIMD, SIMD, SPMD and Vector Processors.

Recommended Books & References:

1. D. A. Patterson, J. L. Hennessy, *Computer Organization and Design: The Hardware and Software Interface*, (5e), Elsevier, 2017.
2. J. L. Hennessy, D. A. Patterson, *Computer Architecture: A Quantitative Approach*, (6e), Morgan Kaufmann Publishers, 2019.
3. W. Stallings, *Computer Organization and Architecture –Designing for Performance*, (9e), Pearson, 2013.

COURSE: WEB TECHNOLOGY LAB

(Credits: 6)

Course Outcomes: To develop the understanding of web designing using HTML, CSS and PHP. To develop the understanding of practical implementation of JavaScript for mobile projects.

Practical
1. Introduction to WWW: Web Design, Web site design principles, planning the site and navigation.
2. HTML: The development process, html tags, forms, web site structure. XHTML: XML, move to XHTML, meta tags, character entities, frames and frame sets, inside browser.
3. Style Sheets: CSS1, CSS2, CSS3.
4. JavaScript: How to develop javascript, variables, functions, conditions, loops and repetition. Advance Javascript: Javascript and objects, javascript own objects, the DOM and web browser environments, forms and validations.
5. DHTML: Combining HTML, CSS and Javascript, events and buttons, controlling your browser.
6. Ajax: Introduction, advantages, purpose of it, Ajax based web application, alternatives of Ajax.
7. XML: Introduction to XML, DTD and Schemas, Well formed, using XML with application. XSL: Introduction to XSL, XML transformed simple example, XSL elements, transforming with XSLT.
8. PHP: Starting to script on server side, arrays, function and forms, advance PHP. Databases: Connection to server, creating database, performing data and schema related operations, PHP myadmin and database bugs.
9. Advanced topics: E-Commerce models and architecture. m-Commerce: WAP and Mobile agents, search engines and search engine optimization, Introduction to web services and technology.
10. Introduction, pros and cons of the above technology with advance technology: JQuery, WebRTC, Web socks, Angularjs, NodeJS, JSON, Bootstrap.

Note: All above will be facilitated using Web/Mobile application projects assigned to the students.

Recommended Books & References:
1. R. Connolly, R. Hoar, *Fundamentals of Web Development,* Pearson Education India, 2015.
2. R. Nixon, *Learning PHP, MySQL & JavaScript with jQuery, CSS and HTML5*, (5e), O'Reilly Publications, 2018.
3. L. Welling, L. Thomson, *PHP and MySQL Web Development*, (5e), Pearson Education, 2017.
4. N. C. Zakas, *Professional JavaScript for Web Developers*, (3e), Wrox/Wiley India, 2019.
5. D. S. Mcfarland, *JavaScript & jQuery: The Missing Manual*, (3e), O'Reilly/Shroff Publishers & Distributors Pvt Ltd, 2014.
6. Z. R. A. Boehm, *Murach's HTML5 and CSS3*, (4e), Murach's/Shroff Publishers & Distributors Pvt Ltd, 2018.

COURSE: FUNDAMENTAL OF DATABASES

(Credits: 6)

Course Outcomes: To develop the understanding of Basics of database and its working concepts using SQL Queries for various operations.

Unit-I(Introduction to Databases) (Credits: 2)

Introduction: Database-System Applications, Relational Databases, Database Design, Data Storage and Querying, Transaction Management, Database Architecture.

Unit-II(File management system) (Credits: 2)

File Management System: Indexing and Hashing. Relational Algebra: Algebra, Tuple Calculus, Domain Calculus. SQL: Data Definition Language, Data manipulation language, SQL Data Types and Schemas, Integrity Constraints, Basic Structure of SQL Queries, Set Operations, Aggregate Functions, Null Values, Nested Sub-queries, Correlated queries. Join: Inner, Outer, Left, Right and Natural.

Unit-III(The Entity Relationship Model) (Credits: 2)

The Entity-Relationship Model: Constraints, Entity-Relationship Diagrams, Entity-Relationship Design Issues, Weak Entity Sets, Extended E-R Features. Normalization: Normal Forms, BCNF.

Recommended Books & References:
1. R. Elmasri, S. B. Navathe, *Fundamentals of Database Systems*, (6e), Addison-Wesley, 2010.
2. R. Ramakrishnan, J. Gehrke, *Database Management Systems*, (3e), McGraw Hill, 2014.

COURSE: PRINCIPLES OF PROGRAMMING LANGUAGES

(Credits: 6)

Course Outcomes: To develop the understanding of programming language in context of syntax and semantics, data types, and concepts of object oriented programming in various programming languages.

Unit-I(Preliminary Concepts of Programming Languages) (Credits: 2)

Preliminary Concepts: Concepts of programming languages. Syntax and Semantics: general Problem of describing Syntax and Semantics. Data types: Primitive, character, user defined, array, associative record, union, pointer and reference types.

Unit-II(Expressions and Statements) (Credits: 2)

Expressions and Statements: Assignment Statements, Control Structures. Subprograms and Blocks: Fundamentals of sub-programs, Scope of life time of variables, static and dynamic scope, design issues of sub-programs and operations. Abstract Data types: Abstractions and encapsulation, introductions to data abstraction, design issues, language examples.

Unit-III(Concurrency and exception handling) (Credits: 2)

Concurrency: Subprogram level concurrency, semaphores, monitors, massage passing, Java threads, C# threads. Exception handling: Exceptions, exception Propagation, Exception handler in Ada, C++ and Java, Logic Programming Language: Introduction and overview of logic programming.

Recommended Books & References:
1. R. W. Sebesta, *Concepts of Programming Languages*, (10e), Pearson Education, 2008.
2. D. A. Watt, *Programming Language Design Concepts*, Wiley, (2e), 2007.
3. B. Tucker, R. E. Noonan, *Programming Languages*, (2e), TMH, 2007.
4. K. C. Louden, *Programming Languages*, (2e), Thomson, 2003.
5. T. W. Pratt, M. V. Zelkowitz, T. V. Gopal, *Programming Languages: Design and Implementation*, (4e), PHI, 2006

COURSE: ENTERPRISE RESOURCE PLANNING

(Credits: 6)

Course Outcomes: To develop the understanding of enterprise resource planning and how engineering works in the businesses. Also, the understanding of software development life cycle in nutshell.

Unit-I(ERP Overview) **(Credits: 2)**

ERP Overview: ERP Components, ERP Benefits. Business Process Reengineering (BPA): BPA life cycle, BPA components. Data warehousing, Data mining, Supply chain Management; ERP: evolution, a Manufacturing Perspective, ERP Module, ERP Market, ERP implementation life cycle, Options of various paradigms, Identification of suitable platforms.

Unit-II(SDLC/SSAD) **(Credits: 2)**

SDLC/SSAD: Role of SDLC/SSAD, Object oriented architecture. ERP Implementation: introduction, pre evaluation screening, package evaluation, project planning phase, Gap analysis, Hidden costs, Major Vendors, Consultant Employees, Human Resource.

Unit-III(ERP & E-Commerce) **(Credits: 2)**

ERP & E-Commerce: Future Directives- in ERP, ERP and Internet, Critical Factors guiding selection and evaluation of ERP, Strategies for its successful implementation, Impediments and initiatives to achieve success, Critical success and failure factors, Integrating of ERP into organizational culture. Using ERP tool: Case study of a system using SAP or ORACLE or open source ERP.

Recommended Books & References:

1. S. R. Magal, J. Word, *Integrated Business Processes with ERP Systems*, (2e), John Wiley & Sons, 2011.
2. M. Sumner, *Enterprise Resource Planning*, Pearson Education, (2e), 2006.
3. E. Monk, B. Wagner, *Concepts in Enterprise Resource Planning*, (3e), Thomson Course Technology, 2006.

COURSE: PRINCIPLES OF MACHINE LEARNING

(Credits: 6)

Course Outcomes: To develop the understanding of artificial intelligence and basics of data mining, roles and uses of data mining and various algorithms theoretically. Also, the uses of neural networks and its types.

Unit-I(Introduction to Artificial Intelligence) **(Credits: 2)**

Introduction to Artificial Intelligence: Foundations, scope, problems. Problem-solving through Searching: forward and backward, state-space, blind, heuristic, problem-reduction, minimax.
Supervised Learning: Process for feature selection, over-parameterization and the curse of dimensionality, regularization, cross validation.

Unit-II (Classification and Regression) **(Credits: 2)**

Classification: operation of classifiers, regression as a classifier, metrics used to evaluate classifiers, SVM, Naïve Bayes, KNN. Regression: operation of regression models, prediction and forecasting, metrics used to evaluate regression models.

Unit-III(Neural Networks) **(Credits: 2)**

Neural networks: Feed forward NN, Feed backward NN, Convolutional Neural network. Unsupervised Learning: K-mean clustering. Algorithmic Learning Theory and Applications: Mistake bound model, PAC Model.

Recommended Books & References:

1. G. F. Luger, W. A. Stubblefield, *Artificial Intelligence - Structures and Strategies for Complex Problem Solving.* (5e), Addison Wesley, 2005.
2. P Baldi, S Brunak, *Bioinformatics: A Machine Learning Approach,* (2e) MIT Press, 2002.
3. T. M. Mitchell, *Machine Learning,* McGraw-Hill Education, 2017.
4. Y Abu-Mostafa, M. Magdon-Ismail, H.T. Lin, H-T. *Learning from Data*. AML Book, 2012.

V SEMESTER

COURSE: ARTIFICIAL INTELLIGENCE AND SOFT COMPUTING

(Credit: 6)

Course Outcome: To develop the understanding of fundamental concepts of artificial intelligence, search techniques and soft computing in detail. Student will be able to understand the concepts of artificial applications and soft computing.

Unit: I (Fundamental Concepts)   (Credit: 1.5)

Fundamental Concepts: Agents, environments, general model, Problem solving techniques. Search Techniques: Uninformed search, heuristic search, adversarial search and game trees, Solution of constraint satisfaction problems using search.

Unit: II (Knowledge representation)   (Credit: 1.5)

Knowledge Representation: Propositional and predicate calculus, semantics for predicate calculus, inference rules, unification, Resolution, semantic networks, conceptual graphs/Dependency, structured representation. Learning: Inductive learning, decision tree learning. Natural language processing: introduction, parsing using context free grammars, Chomsky hierarchy, case grammar.

Unit: III (Soft Computing)   (Credit: 1.5)

Soft computing: Fuzzy set theory, Fuzzy sets, set-theoretic operations, membership functions, Union, intersection and complement, fuzzy rules, reasoning and interference. Neural networks: Perception, Back Propagation. Evolutionary techniques: genetic algorithms, Swarm Algorithm, ant colony optimization.

Practical   (Credit: 1.5)

1. Introduction to Python: basic variable declaration, loops, inbuilt functions.
2. Basic Programming using Python for AI techniques: global and local heuristics, Crypt arithmetic, Python syntax, Constraint satisfaction Problem, Preposition and inference.
3. Travelling Salesman Problem using Branch & Bound /Nearest Neighbour.
4. Character recognition using Neural Networks.
5. Optimization using Genetic Algorithms.
6. Mini-Projects & Case Studies.

Recommended Books & References:

1. S. Russell, P. Norvig, *Artificial Intelligence: A Modern Approach,*(3e) PHI, 2011.
2. E. Rich, K. Knight, S. B. Nair, *Artificial Intelligence,* (3e), Tata McGraw Hill, 2009.
3. G. F. Luger, *Artificial Intelligence-Structures and Strategies for Complex Problem Solving*, (6e), Addison-Wesley Pearson Education, 2012.

COURSE: DESIGN & ANALYSIS OF ALGORITHMS

(Credit: 6)

Course Outcome: To develop the understanding of fundamental concepts of algorithms, framework analysis, and dynamic programming concepts. Students will be able to perform dynamic programming to solve some complex problems using optimized solutions.

Theory (Credit: 4.5)

Unit: I (Introduction to algorithms) **(Credits: 1.5)**

Introduction: Fundamentals of Algorithms, Important Problem Types, Analysis of algorithm efficiency. Analysis Framework: Asymptotic Notations and Basic Efficiency Classes, Mathematical Analysis of Nonrecursive and Recursive Algorithms, Brute force Techniques, Divide and Conquer.

Unit: II (Searching and Sorting) **(Credits: 1.5)**

Decrease and Conquer: Insertion Sort, Depth First Search, Breadth First Search, Topological Sorting. Transform and Conquer: Presorting, BST, Heapsort. Space and Time tradeoffs: Input Enhancement in String Matching.

Unit: III (Dynamic Programming **(Credits: 1.5)**

Dynamic Programming: Warshall's and Floyd's Algorithms, The Knapsack Problem. Greedy Techniques: Prim's, Kruskal's and Dijkstra's Algorithm, Huffman Trees, Coping with limitations of algorithmic power. Backtracking: nQueens problem, Hamiltonian Circuit Problem, SubsetSum Problem. BranchandBound: Assignment Problem, Knapsack Problem, TSP. Complexity Clasess: P, NP,and NP-complete Problems.

Practical **(Credit: 1.5)**

1. Sorting & Searching Algorithm: insertion sort, selection sort, binary search.
2. Basic data structures: stacks and queues, graphs and trees, binary trees.
3. Algorithmic paradigms: Recursion, divide-and-conquer, Merge sort, Quick sort.
4. Greedy: Knapsack, Huffman encoding, dynamic programming, lower bounds and optimal algorithms.
5. Heaps: Heaps, priority queues, min-max heaps, heap sort.
6. Dynamic search structures: Binary search trees, height balancing, B-trees.
7. Algorithms on arrays: Linear-time median finding, sorting in linear time (counting sort, radix sort, bucket sort), String matching (Rabin-Karp and Knuth-Morris-Pratt algorithms).
8. Graph algorithms Traversal: (BFS, DFS, topological sort), Minimum spanning trees (Prim and Kruskal algorithms), shortest paths (Dijkstra's and Floyd-Warshal algorithms).
9. Mini-Projects & Case Studies.

Recommended Books & References:

1. E. Horowitz, S. Sahni, S. Rajasekaran, *Fundamental of Computer Algorithms*, (2e), Universities Press, 2007.
2. T. H. Cormen, C. E. Leiserson, R.L. Rivest and C. Stein, *Introduction to Algorithms*, (3e), MIT press, 2009.

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COURSE: AUTOMATA THEORY & COMPILER DESIGN

(Credit: 6)

Course Outcome: To develop the understanding of automata theory, Mealy and Moore machines, hierarchy in grammars and the compiler design techniques. Students will learn about the theoretical and practical aspects of machines.

Unit: I (Introduction to automata)

(Credits: 2)

Introduction: Automata Theory, Mathematical Preliminaries and Notation, Review of set theory, function, relation. Finite Automata: Deterministic and Non Deterministic Finite Automata (FA), Regular languages, Mealy and Moore machine;

Unit: II (Regular Sets and Regular Grammars)

(Credits: 2)

Regular Sets and Regular Grammars: Chomsky Hierarchy, Regular Expressions, Regular Grammar and FA, Pumping Lemma for Regular Languages**;** Context Free Languages (CFL) and Grammars: Ambiguity, Methods for Transforming Grammars**;** Push Down Automata: Nondeterministic Pushdown Automata (NPDA), Design of NPDA, PDA and CFLs**;** Introduction to Turing machine;

Unit: III (Compiler Design)

(Credits: 2)

Introduction to Compiler Design: Structure of a Compiler, Lexical Analysis, Recognition of Tokens**;** Introduction to LR Parsing: Simple LR, More Powerful LR Parsers**,** Parser Generators; Syntax Directed Translations; Type Checking: Rules for Type Checking; Storage Organization.

Recommended Books & References:

1. P. Linz, *An Introduction to Formal Languages and Automata*, (6e), Jones and Bartlett Student Edition, 2016.
2. A. V. Aho, J. Ullman, M. S. Lam, R. Sethi, *Compilers: Principles, Techniques and Tools*, (2e), Pearson Education, 2015.
3. M. Sipser, *Introduction to the Theory of Computation*, (3e), Cengage Learning, 2014.
4. J. C. Martin, *Introduction to Languages and the Theory of Computation,* (4e), McGraw Hill, 2010.

COURSE: COMPUTER NETWORKS

(Credit: 6)

Course Outcome: To develop the understanding of networking and its concepts, some dynamic routing protocols and applications and protocols at application layer theoretically and practically. Students will be able to learn and perform the virtual network simulation and also, the real time traffic monitoring.

Unit: I (Network Layer and protocols)   **(Credits: 1.5)**

Network Layer: Network layer design issues, routing algorithms, congestion control algorithms, Quality of service, MPLS, Classful addressing, Sub-netting, Classless addressing. Protocols: ARP & DHCP, Introduction, Packet Format, message types, IPV4 header format, fragmentation, options, checksum. ICMP: Message format, message types.

Unit: II (Dynamic Routing Protocols)   **(Credits: 1.5)**

Dynamic routing protocols: RIP, OSPF & BGP. Multicasting Protocol: IGMP, Introduction to IPV6. Transport Layer: Transport services, state diagram, Elements of Transport Protocols, addressing, Connection establishment, connection release, Error control and Flow Control, Multiplexing. Congestion Control: Bandwidth allocation, regulating the sending rate, UDP, TCP.

Unit: III (Application Layer)   **(Credits: 1.5)**

Application Layer: DNS, Name space, domain resource records. Electronic Mail: SMTP, POP, IMAP, MIME, HTTP, HTTPS, SNMP. Network Security: Security Goals, Attacks, Attack prevention techniques, Firewall, IDS, DMZ, IPsec.

Practical   **(Credit: 1.5)**

1. Cisco Packet Tracer: Introduction to packet tracer and networking device components, Router mode, Switch/Router basic commands; designing of star topology using HUB and Switch,
2. IP configuration of end devices,
3. Configuring DHCP server, Static routing, RIP, OSPF, VLAN and NAT.
4. Network programming: Transmission control protocol and User datagram protocol.
5. Network Utilities: PING, NETSTAT, IPCONFIG, IFCONFIG, ARP, TRACE-ROUTE

Recommended Books & References:
1. B. A. Forouzan, *TCP/IP Protocol Suite*, (4e), TMH, 2010.
2. A. S. Tanenbaum, *Computer Networks*, (5e), Pearson, 2010.

Open Electives:

COURSE: FUNDAMENTAL OF DATABASES

(Credits: 6)

Course Outcome: To develop the understanding of Basics of database and its working concepts using SQL Queries for various operations. Students will learn about database systems and, manage the data.

Unit-I(Introduction to Databases)   **(Credits: 2)**

Introduction: Database-System Applications, Relational Databases, Database Design, Data Storage and Querying, Transaction Management, Database Architecture.

Unit-II(File management system)   **(Credits: 2)**

File Management System: Indexing and Hashing. Relational Algebra: Algebra, Tuple Calculus, Domain Calculus. SQL: Data Definition Language, Data manipulation language, SQL Data Types and Schemas, Integrity Constraints, Basic Structure of SQL Queries, Set Operations, Aggregate Functions, Null Values, Nested Sub-queries, Correlated queries. Join: Inner, Outer, Left, Right and Natural.

Unit-III(The Entity Relationship Model)   **(Credits: 2)**

The Entity-Relationship Model: Constraints, Entity-Relationship Diagrams, Entity-Relationship Design Issues, Weak Entity Sets, Extended E-R Features. Normalization: Normal Forms, BCNF.

Recommended Books & References:

3. R. Elmasri, S. B. Navathe, *Fundamentals of Database Systems*, (6e), Addison-Wesley, 2010.
4. R. Ramakrishnan, J. Gehrke, *Database Management Systems*, (3e), McGraw Hill, 2014.

COURSE: PRINCIPLES OF PROGRAMMING LANGUAGES

(Credits: 6)

Course Outcome: To develop the understanding of programming language in context of syntax and semantics, data types, and concepts of object oriented programming in various programming languages.

Unit-I(Preliminary Concepts of Programming Languages)

(Credits: 2)

Preliminary Concepts: Concepts of programming languages. Syntax and Semantics: general Problem of describing Syntax and Semantics. Data types: Primitive, character, user defined, array, associative record, union, pointer and reference types.

Unit-II(Expressions and Statements)

(Credits: 2)

Expressions and Statements: Assignment Statements, Control Structures. Subprograms and Blocks: Fundamentals of sub-programs, Scope of life time of variables, static and dynamic scope, design issues of sub-programs and operations. Abstract Data types: Abstractions and encapsulation, introductions to data abstraction, design issues, language examples.

Unit-III(Concurrency and exception handling)

(Credits: 2)

Concurrency: Subprogram level concurrency, semaphores, monitors, massage passing, Java threads, C# threads. Exception handling: Exceptions, exception Propagation, Exception handler in Ada, C++ and Java, Logic Programming Language: Introduction and overview of logic programming.

Recommended Books & References:

1. R. W. Sebesta, *Concepts of Programming Languages*, (10e), Pearson Education, 2008.

2. D. A. Watt, *Programming Language Design Concepts*, Wiley, (2e), 2007.

3. B. Tucker, R. E. Noonan, *Programming Languages*, (2e), TMH, 2007.

4. K. C. Louden, *Programming Languages*, (2e), Thomson, 2003.

5. T. W. Pratt, M. V. Zelkowitz, T. V. Gopal, *Programming Languages: Design and Implementation*, (4e), PHI, 2006

COURSE: ENTERPRISE RESOURCE PLANNING

(Credit: 6)

Course Outcome: To develop the understanding of enterprise resource planning and how engineering works in the businesses. Also, the understanding of software development life cycle in nutshell.

Unit-I(ERP Overview) **(Credits: 2)**

ERP Overview: ERP Components, ERP Benefits. Business Process Reengineering (BPA): BPA life cycle, BPA components. Data warehousing, Datamining, Supply chain Management; ERP: evolution, a Manufacturing Perspective, ERP Module, ERP Market, ERP implementation life cycle, Options of various paradigms, Identification of suitable platforms.

Unit-II(SDLC/SSAD) **(Credits: 2)**

SDLC/SSAD: Role of SDLC/SSAD, Object oriented architecture. ERP Implementation: introduction, pre evaluation screening, package evaluation, project planning phase, Gap analysis, Hidden costs, Major Vendors, Consultant Employees, Human Resource.

Unit-III(ERP & E-Commerce) **(Credits: 2)**

ERP & E-Commerce: Future Directives- in ERP, ERP and Internet, Critical Factors guiding selection and evaluation of ERP, Strategies for its successful implementation, Impediments and initiatives to achieve success, Critical success and failure factors, Integrating of ERP into organizational culture. Using ERP tool: Case study of a system using SAP or ORACLE or open source ERP.

Recommended Books & References:

1. S. R. Magal, J. Word, *Integrated Business Processes with ERP Systems*, (2e), John Wiley & Sons, 2011.
2. M. Sumner, *Enterprise Resource Planning*, Pearson Education, (2e), 2006.
3. E. Monk, B. Wagner, *Concepts in Enterprise Resource Planning*, (3e), Thomson Course Technology, 2006.

COURSE: PRINCIPLES OF MACHINE LEARNING

(Credit: 6)

Course Outcome: To develop the understanding of artificial intelligence and basics of data mining, roles and uses of data mining and various algorithms theoretically. Also, the uses of neural networks and its types.

Unit-I(Introduction to Artificial Intelligence)

(Credits: 2)

Introduction to Artificial Intelligence: Foundations, scope, problems. Problem-solving through Searching: forward and backward, state-space, blind, heuristic, problem-reduction, minimax.
Supervised Learning: Process for feature selection, over-parameterization and the curse of dimensionality, regularization, cross validation.

Unit-II(Classification and Regression)

(Credits: 2)

Classification: operation of classifiers, regression as a classifier, metrics used to evaluate classifiers, SVM, Naïve Bayes, KNN. Regression: operation of regression models, prediction and forecasting, metrics used to evaluate regression models.

Unit-III(Neural Networks)

(Credits: 2)

Neural networks: Feed forward NN, Feed backward NN, Convolutional Neural network. Unsupervised Learning: K-mean clustering. Algorithmic Learning Theory and Applications: Mistake bound model, PAC Model.

Recommended Books & References:

1. G. F. Luger, W. A. Stubblefield, *Artificial Intelligence - Structures and Strategies for Complex Problem Solving.* (5e), Addison Wesley, 2005.
2. P Baldi, S Brunak, *Bioinformatics: A Machine Learning Approach,* (2e) MIT Press, 2002.
3. T. M. Mitchell, *Machine Learning,* McGraw-Hill Education, 2017.
4. Y Abu-Mostafa, M. Magdon-Ismail, H.T. Lin, H-T. *Learning from Data*. AML Book, 2012.

Programme Electives:

COURSE: INFORMATION RETRIEVAL

(Credits: 6)

Course Outcome: To develop the understanding of information retrieval using some terminologies and the concepts behind the search engines.

Unit-I(Introduction to IR)

(Credits: 2)

Introduction to IR: IR Concepts, Boolean Retrievals- An Example Information Retrieval Problem, A First Take at Building an Inverted Index, Processing Boolean Queries. The Term Vocabulary and Postings Lists: Document Delineation and Character Sequence Decoding, Determining the Vocabulary of Terms. Dictionaries and Tolerant Retrieval: Search Structures for Dictionaries, Wildcard Queries, Spelling Correction, Phonetic Correction.

Unit-II(Index Construction and Information retrieval)

(Credits: 2)

Index Construction: Hardware Basics Blocked Sort-Based Indexing. Scoring, Term Weighting and the Vector Space Model: Parametric and Zone Indexes, Term Frequency and Weighting, The Vector Space Model for Scoring. Evaluation in Information Retrieval: Information Retrieval System Evaluation, Standard Test Collections, Evaluation of Unranked Retrieval Sets, Evaluation of Ranked Retrieval Results.

Unit-III(XML and Web search)

(Credits: 2)

XML Retrieval: Basic XML Concepts, Challenges in XML Retrieval, A Vector Space Model for XML Retrieval, Evaluation of XML Retrieval, Text-Centric vs. Data-Centric XML Retrieval. Web Search Basics: Web Characteristics, Advertising as the Economic Model, The Search User Experience, Index Size and Estimation, Near-Duplicates and Shingling. Web Crawling and Indexes: Overview, Crawling, Distributing Indexes, Connectivity Servers. Link Analysis: The Web as a Graph, Page Rank, Hubs and Authorities.

Recommended Books & References:

1. C. Manning, P. Raghavan, H. Schütze, *Introduction to Information Retrieval,* Cambridge University Press, 2009.
2. R. Baeza-Yate, B. Ribeiro-Neto, *Modern Information Retrieval,* (2e), Addison Wesley, 2012.
3. S. Chakrabarti, *Mining the Web: discovering knowledge from hypertext data,* (2e), Morgan Kaufmann, 2002.
4. D. A. Grossman , O. Frieder, *Information Retrieval: Algorithms, and Heuristics, (2e)*, Springer, 2004.

COURSE: COMPUTER GRAPHICS & MULTIMEDIA

(Credit: 6)

Course Outcome: To develop the understanding of computer graphics, algorithms behind the graphics, and how multimedia systems work practically and theoretically both.

Unit-I(Introduction to Computer Graphics)

(Credits: 2)

Basics of Computer Graphics: Pixel, Frame buffer, Application of computer graphics. Graphic Display Devices: Cathode Ray Tube, Light emitting diode, DVST, Random and Raster Scan displays. Scan Conversion: Line Generation using digital differential analyzer (DDA), bresenham's Algorithm, Circle generation algorithm, Ellipse generation algorithm, Polygon generation and filling algorithms.

Unit-II(Transformations of images)

(Credits: 2)

Two Dimensional Transformations: Introduction, homogeneous representation of points, basic transformation like Translation, Rotation, Scaling, Reflection, Shear. Clipping and Windowing: Cohen Sutherland Algorithm, liang Barsky algorithm, Sutherland Hodgman Algorithm. Three dimensional transformation: Translation, Rotation, Scaling and Reflection. Projection: Introduction, Types of projection. Hidden Surface elimination: Depth comparison, Back face detection algorithm, Painter's Algorithm, Z-Buffer Algorithm. Basic Illumination Model: Diffuse reflection, Specular reflection, Phong and Gouraud shading.

Unit-III(Introduction to Multimedia)

(Credits: 2)

Introduction to Multimedia: Concepts and uses, hypertext and hypermedia, image, video and audio standards, text compression algorithm. Animation: types, techniques, key frame animation, utility, morphing.

Recommended Books & References:

1. D. Hearn, M. P. Baker, *Computer Graphics with OpenGL*, (4e), Pearson Education, 2014.
2. R. Steinmetz, K. Nahrstedt, *Multimedia Systems*, Springer, 2004
3. J. F. Hughes, J. D. Foley, *Computer graphics Principles and Practice*,(3e), Pearson Education, 2014.
4. R. Steinmetz, K. Nahrstedt, *Multimedia Fundamentals: Media Coding and Content Processing*, (2e), Pearson Education, 2004

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COURSE: USER INTERFACE DESIGN

(Credit: 6)

Course Outcome: To develop the understanding of user interface and its designing principals, models and use cases with real life projects.

Unit-I(UI Design Process)

(Credits: 2)

UI Design Process: Design Process Introduction, Designing to Address a Problem w/o Solution Ideas, Designing for a known solution direction, Designing to iterate on/improve an existing solution, Common Elements: Usability, Engineering and Task-Centered Approaches, Use Cases, Personas, Tasks, and Scenarios, Design-Centered Methods & When They Work Best, Pulling it all Together, Psychology and Human Factors for User Interface Design: Introduction, Fitts' Law, Short- and long-term memory, attention, Perception and visualization, hierarchy, Mistakes, Errors, and Slips, Conceptual models, The Gulf of Execution and the Gulf of Evaluation,

Unit-II(Designing Principals and personas)

(Credits: 2)

Design Principles: Visibility, Feedback, Mappings, Constraints, Interacting beyond individuals (social psychology), High-Level Models: Distributed Cognition, Activity Theory, Situated Action, User Research Methods: User Research to Design, Introduction to User Research, Interview and Focus Groups, Observations, Contextual Inquiry, Ethics and Consent, Design a User Research Protocol, Log Analysis, Surveys and Questionnaires, Analyzing and Delivering User Research: Introduction: Translating User Research to Support Design, Qualitative Analysis, Quantitative Analysis, Personas I: What They Are; How They're Used, Personas II: Walking Through Examples, Use Cases, Tasks and Walkthrough Scenarios, Implications for Design,

Unit-III(Ideation and Idea selection)

(Credits: 2)

Ideation and Idea Selection: rom Research to Ideas, Ideation, Idea Selection, Communicating Ideas to Stakeholders, Good User Interfaces principles: learnability, visibility, error prevention, efficiency, and graphic design) and the human capabilities that motivate them (including perception, motor skills, color vision, attention, and human error), Implementation of UI: building user interfaces, including low-fidelity prototypes, etc Empirical research involving novel user interfaces.

Recommended Books & References:

1.Norman, A. Donald, *The Design of Everyday Things.*MIT Press, 2014.
2.Coursera platform and internet resources

COURSE: DIGITAL IMAGE PROCESSING

(Credit: 6)

Course Outcome: To develop the understanding of image processing, its types and various uses, and the use of image are processing in the authentication.

Unit-I(Introduction to Image Processing)

(Credits: 2)

Introduction to image processing: steps in image processing, Image file formats, Basic relationships between pixels, Colour Models. Image Enhancement and Restoration: Image histogram, Spatial domain enhancement, point operations, Log transformation, Power-law transformation.

Unit-II(Image transformations)

(Credits: 2)

Frequency domain enhancement: introduction to image transforms, Fourier transform, 2D-DFT. Restoration: Noise models, Restoration using inverse filtering and Wiener filtering. Image Coding and Compression: Lossless compression, Lossy compression, JPEG, MPEG.

Unit-III(Image Segmentation and Representation)

(Credits: 2)

Image Segmentation and Representation: Grey level features, edges and lines, similarity, correlation, template matching, edge detection using templates, Representation scheme, boundary descriptors, regional descriptors, Image Morphology. Biometric Authentication, Object Detection.

Recommended Books & References:

1. K. R. Castleman, *Digital Image Processing*, (2e), Pearson Education, 2011.
2. R. C. Gonzalez, R. E. Woods, *Digital Image Processing*, (4e), Pearson Education, 2018.
3. A. K. Jain, *Fundamentals of Digital Image Processing*, Pearson Education, Reprint 2015.
4. S. Jayaraman, S. Esakkirajan, T Veerakumar, *Digital Image Processing*, Tata McGraw Hill Education, 2009.
5. R. C. Gonzalez, R. E. Woods, S. Eddins, *Digital Image Processing using MATLAB*, (2e), Pearson Education.
6. A. McAndrew, *Introduction to Image processing using MATLAB*, Cengage Learning Publisher, 2007.
7. Prateek Joshi, *OpenCV with Python By Example,* (1e) PACKT Publishing, 2018.

COURSE: INTERNET OF THINGS

(Credit: 6)

Course Outcome: To develop the understanding of fundamental concepts of Internet of Things and its applications, working of IoT system and protocols related to it.

Unit-I(Introduction) (Credits: 2)

Introduction: Analog and digital signals, serial communication, RF and sensors; Introduction to JSON/XML. Programming on Development Boards: Understanding of the board, tool chain and development environment setup; Sensors and Actuators: Understanding and using analog, digital, SPI, UART, I2C.

Unit-II(Nodes and Communications) (Credits: 2)

Nodes and communication protocols: Understanding usage of nodes and gateways for sensor communication and external communication, RF, Zigbee, BT, WI-FI, GSM.

Unit-III(IoT and Cloud) (Credits: 2)

IoT Cloud Platform, Cloud using Web Services, Cloud Computing Services for Sensor Management, Python Script; Data Analytics: Mongo DB, Map Reduce, Using cloud APIs for analytics, Visualization, NVD3, Mobile interfacing.

Recommended Books & References:
1. V. Madisetti, A. Bahga, *Internet of Things: A Hands-On- Approach*, VPT, 2014.
2. R. Buyya, A. V. Dastjerdi, *Internet of Things Principles and Paradigms*, 2016.
3. H. Geng, *Internet of Things Principles and Data Analytics Handbook*, Wiley, 2017.
4. P. Raj, A. C. Raman, *The Internet of Things Enabling Technologies, Platforms, and Use Cases*, CRC Press, 2017.

COURSE: BIG DATA ANALYTICS

(Credit: 6)

Course Outcome: To develop the understanding of Big Data and its management, Advanced analytics algorithms, and file systems used to manage the big data.

Unit-I(Introduction to Big Data) (Credits: 2)

INTRODUCTION: Introduction to big data, definition, need and evolution of BDA, Applications of Big Data. Analysing big data: Sources of big data, Characteristics of Big Data(4 V's), Drivers of BDA, Structured vs. Unstructured data, Data Marts, Differences between traditional DWDM and BDA. Data Processing: Data Wrangling, Data Munging, Data Jujitsu. Data Visualisation: Why to visualize data. Data Analytics Life Cycle.

Unit-II(Advanced Analytics Algorithms) (Credits: 2)

Advanced Analytics Algorithms: Introduction using R – Theory and Methods Overview: K-means clustering, Association Rules, Linear Regression, Logistic Regression, Naïve Bayesian Classifiers, Decision Trees, Time Series Analysis, Text Analytics; Statistics for Model Building and Evaluation: Statistics in the Analytic Lifecycle, Hypothesis Testing, Difference of means.

Unit-III(HADOOP Framework) (Credits: 2)

Hadoop Framework: Introduction to Hadoop, HDFS - Hadoop Distributed File system, Map Reduce Programming, Pig. ETL & Batch Processing with Hadoop: ETL & Data Warehousing, Ingesting data into Big Data Platforms using Apache Sqoop & Flume, Big Data Analytics using Apache Hive, NoSQL databases for Big Data Storage Applications (HBase), Workflow management for Hadoop using Oozie Spark: Introduction to Spark, SparkSQL, MLLib: Regression, Clustering & Classification using Spark MLLib.

Recommended Books & References:
1. B. Schmarzo, *Big Data: Understanding How Data Powers Big Business,* Wiley.2013
2. A. Jorgensen, J. Rowland-Jones, J. Welch, *Microsoft Big Data Solutions,* Wiley.,2014
3. J. Thompson, S. P. Rogers, *Analytics: How to Win with Intelligence, Technics, LLC Publications ,* 2017

COURSE: SOFTWARE DEFINED NETWORKS

(Credit: 6)

Course Outcome: To develop the understanding of working of software defined working, programming behind this and network function virtualization.

Unit-I(Software Defined Networking)   (Credits: 2)
Software Defined Networking (SDN): Separation of control plane and data plane, IETF forces, Active networking. Control and Data Plane Separation: Concepts, Advantages and disadvantages, the Open flow protocol.

Unit-II(Control Plane and SDN Programming)   (Credits: 2)
Control Plane: Overview, Existing SDN controllers including floodlight and open daylight projects. Customization of Control Plane: Switching and firewall implementation using SDN concepts. Data Plane: Software-based and Hardware-based, Programmable network, Mininet based examples. Programming SDNs: Northbound application programming interface, current languages and tools, Composition of SDNs.

Unit-III(Network Functions Virtualization)   (Credits: 2)
Network Functions Virtualization (NFV): Concepts, Implementation, Applications. Use Cases of SDNs: Data Centers, Internet exchange points, Backbone networks, Home networks, Traffic engineering. Programming Assignments for implementing some of the theoretical concepts listed above.

Recommended Books & References:
1. T. D. Nadeau, K. Gray, *SDN: Software Defined Networks, An Authoritative Review of Network Programmability Technologies,* (1e) O'Reilly Media, 2013.
2. P. Goransson, C. Black, *Software Defined Networks: A Comprehensive Approach,* (2e) Morgan Kaufmann, 2016.
3. F. Hu, *Network Innovation through Open Flow and SDN: Principles and Design*, CRC Press, 2014.
4. V. Tiwari, *SDN and Open Flow for Beginners, Amazon Digital Services, Inc.,* ASIN, 2013.
5. S Subramanian, *Software Defined Networking with OpenStack,* Packt Publishing, 2016.

COURSE: DEEP NEURAL NETWORK

(Credit: 6)

Course Outcome: To develop the understanding of neural networks using advanced methods in neural networks and the working of the neural networks.

Unit-*I*(Introduction)   (Credits: 2)
Introduction of Deep Learning, Basics of Machine Learning, Neural Network, Activation function, Gradient Descent, Stochastic Gradient Descent, backpropagation, Deep Convolution Neural network: convolution operation, ReLU Layer, Pooling Layer, Flattening, fully connected layer, softmax and cross entropy,

Unit-II(Recurrent Neural networks)   (Credits: 2)
Recurrent Neural network: Vanishing Gradient Problem, LSTMs, LSTM variations, Self-organizing Map (SOM), K-means clustering, Boltzmann Machine, Energy-based Models, Contrastive Divergence,

Unit-III(Deep Belief Networks)   (Credits: 2)
Deep Belief Networks, autoencoders, training of auto encode, over complete hidden layers, sparse autoencoders, denoising autoencoders, contractive autoencoders, stacked autoencoders, deep autoencoders.

Recommended Books & References:
1. I. Goodfellow, Y. Bengio , A. Courville, *Deep Learning*,   MIT Press 2016.
2. S. Haykin, *Neural Networks and Learning Machines*, (3e), PHI, 2008.

COURSE: SOCIAL NETWORK ANALYSIS

(Credit: 6)

Course Outcome: To develop the understanding of social web and working of different models used in the social network analysis.

Unit-I(Introduction to Social Web) (Credits: 2)

Introduction to Social Web: Nodes, Edges and Network measures, Describing Nodes and Edges, Describing Networks, Layouts. Visualizing Network features: The role of Tie Strength, Measuring Tie Strength, Tie Strength and Network Structure, Tie Strength and Network Propagation, Link Prediction, Entity Resolution. Link Prediction: Case Study Friend recommendation.

Unit-II(Communities) (Credits: 2.5)

Communities: Introduction, Communities in Context, Quality Functions. Algorithms: Clustering-based, Newman and Girvan- Divisive clustering, Newman-Modularity maximization, Clauset-Greedy optimization of modularity, Louvain Method-Hierarchical clustering, Agglomerative clustering, Falkowski (DENGRAPH)-Density-based clustering, Nikolaev-Entropy centrality-based clustering, Clique-based Methods for Overlapping Community Detection, Palla-Clique percolation method, Lancichinetti-Fitness function, Du-Kernels-based clustering, Shen-Agglomerative hierarchical clustering, Evans-Line graph, clique graph, Label Propagation-based Community Detection.

Unit-III(Introduction to social influence) (Credits: 1.5)

Introduction to Social Influence: Influence Related Statistics, Social Similarity and Influence, Homophile, Existential Test for Social Influence, Influence and Actions, Influence and Interaction, Influence Maximization in Viral Marketing.

Recommended Books & References:

1. J. Goldbeck, *Analyzing the Social Web*, Morgan Kaufmann Publications, 2013.
2. C. C. Aggarwal, *Social Network Data Analytics*, Springer Publications, 2011.
3. J. Scott, *Social Network Analysis*, (3e), SAGE Publications Limited, 2013.
4. J. Goldman, *Facebook Cookbook*, O'Reilly, 2009.
5. S. Kumar, F. Morstatter, H. Liu, *Twitter Data Analytics*, Springer Publications, 2013.

COURSE: SOFTWARE TESTING

(Credit: 6)

Course Outcome: To develop the understanding of fundamentals of software testing, various techniques of testing like manual and automated testing.

Unit-I(Introduction) **(Credits: 2)**

Introduction and concept learning: Basic definitions, Testing axioms, Purpose of Software Testing, Software Testing Principles, The Tester's Role in a Software Development Organization, Origins of Defects, Cost of defects, Defect Classes, Defect Prevention strategies, Defect Repository, Strategies for Software Testing, Testing Activities, Mistakes, Faults & Failures, Verification and Formal Methods, Planning for Verification and Validation.

Unit-II(Manual Testing Methods) **(Credits: 2.5)**

White-Box Testing: Test Adequacy Criteria, Static Testing, Structural Testing, Code Complexity Testing, Mutation Testing, Data Flow Testing. Black-Box Testing: Test Case Design Criteria, Requirement Based Testing, Positive and Negative Testing, Boundary Value Analysis, Equivalence Partitioning State Based Testing, Domain Testing. Functional Testing: Test Plan, Test Management, Test Execution and Reporting, Test Specialist Skills, Tester's Workbench and Tool Categories, Debugging, Test Bed, Traceability and Testability, Attributes of Testable Requirements, Test Matrix, Types of Testing Documentation, Verification Testing, Validation Testing, Integration Testing, System and Acceptance Testing, GUI Testing, Regression Testing, Selection, Minimization and Prioritization of Test Cases for Regression Testing, Creating Test Cases from Requirements and Use cases, Test Design.

Unit-III(Test Automation) **(Credits: 1.5)**

Test Automation: Software test automation – skill needed for automation – scope of automation – design and architecture for automation – requirements for a test tool – challenges in automation – Test metrics and measurements – project, progress and productivity metrics.

Recommended Books & References:

1. W. E. Perry, *Effective Methods for Software Testing,* John Wiley and Sons, 2000.
2. R. Patton, *Software Testing*, Sams Publishing, 2005.
3. A. P. Mathur*, Foundations of Software Testing*, Pearson Education, 2013.
4. J. L. Mitchell, R. Black, *Advanced Software Testing—Vol. 3*, Rocky Nook, 2015.

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

COURSE: LINUX SYSTEM AND SHELL PROGRAMMING

(Credit: 6)

Course Outcomes: To develop the understanding of Linux operating system and its operations. The main objective is to develop the understanding of various operating systems and working on them as per requirements, practically.

Unit-I(Introduction to Linux)

(Credits: 2)

Fundamentals: Processes in Linux, I/O system calls, select and poll functions, Filters and redirection, Linux file system navigation, Directory access, File system implementation, Hard links and symbolic links. Asynchronous Events: Manipulating signal masks and signal sets, Catching and ignoring signals, waiting for signals.

Unit-II(Inter-Process Communication)

(Credits: 2)

Inter-Process Communication: Sockets, Remote procedure calls, Network file system. Concurrency: POSIX thread attributes, Synchronization functions, Mutex locks, Condition variables, Signal handling and threads. Character Device Driver Development: Driver concepts, Writing character drivers, Interrupt handling, Interfacing with hardware. Shell Scripting: Loops, Conditional statements, Command line arguments, test command, expr command.

Unit-III(Advanced Scripting Techniques)

(Credits: 2)

Advanced Scripting Techniques: Providing command line options to scripts, exporting variables, Arrays, Remote shell execution, connecting to MySQL using shell, Essential system administration.

Recommended Books & References:

1. W. R. Stevens, S. A. Rago, *Advanced Programming in the UNIX Environment*, (3e), Addison-Wesley, 2013.
2. R. Love, *Linux System Programming: Talking Directly to the Kernel and C Library,* O'Reilly, 2007.
3. S. Das*, Unix Concepts and Applications*, (4e), McGraw Hill, 2006.
2. W. R. Stevens, B. Fenner, *UNIX Network Programming, Volume 1: The Sockets Networking API,* (3e), Pearson, 2003.
3. K. A. Robbins, S. Robbins, *Unix Systems Programming: Communication, Concurrency, and Threads*, (2e), Prentice Hall, 2004.

COURSE: WIRELESS SENSOR & ADHOC NETWORK

(Credit: 6)

Course Outcome: To develop the understanding of adhoc networks, standards and benefits of using sensors for smart devices used in daily life.

Unit-I(Introduction to ad-hoc networks)

(Credits: 2)

Introduction to ad-hoc networks: Definition, characteristics features, applications. Characteristics of Wireless channel, Ad-hoc Mobility Models: Indoor and outdoor models. MAC Protocols: design issues, goals and classification. Contention based protocols with reservation, scheduling algorithms, protocols using directional antennas.

Unit-II(IEEE standards, protocols and security)

(Credits: 2)

IEEE standards: 802.11a, 802.11b, 802.11g, 802.15. HIPERLAN.Routing Protocols: Design issues, goals and classification.Proactive Vs reactive routing, Unicast routing algorithms, Multicast routing algorithms, hybrid routing algorithm, Energy aware routing algorithm, Hierarchical Routing, QoS aware routing. Transport layer: Issues in designing- Transport layer classification, ad-hoc transport protocols. Security issues in ad-hoc networks: issues and challenges, network security attacks, secure routing protocols. Cross layer Design: Need for cross layer design, cross layer optimization, parameter optimization techniques, Cross layer cautionary perspective. Integration of ad-hoc with Mobile IP networks. Mesh Networks, Vehicular Area Networks, and Mobile Ad Hoc Networks (MANETs).

Unit-III(Introduction to sensor networks and its applications)

(Credits: 2)

Introduction to sensor networks and its applications: Architecture and factors influencing the sensor network design. Routing protocols- data centric routing protocols, hierarchical routing protocols, location based routing, energy efficient routing etc. Node Scheduling and coverage issues, topology control.Querying, data collection and processing.

Recommended Books & References:

1. S. K. Sarkar, T G Basavaraju, C Puttamadappa, *Ad Hoc Mobile Wireless Networks: Principles, Protocols, and Applications,* (2e), CRC Press,2016.
2. C. D. Morais Cordeiro, D. P. Agrawal, *Ad Hoc and Sensor Networks: Theory and Applications,* (2e), World Scientific Publishing, 2011.
3. H. Karl, A. Willing, *Protocols and Architectures for Wireless Sensor Networks,* John Wiley & Sons, 2007.
4. R. Jurdak, *Wireless Ad Hoc and Sensor Networks: A Cross-Layer Design Perspective*, Springer Publications, 2007.
5. S R Murthy, B. S. Manoj, *Ad Hoc Wireless Networks Architectures and Protocols,* Pearson Education, 2008.

COURSE: MOBILE COMPUTING

(Credit: 6)

Course Outcome: To develop the understanding of wireless communications, telecommunication systems and the working of wireless networks using some security aspects.

Unit-I(Wireless Communication Fundamentals)

(Credits: 2)

Wireless Communication Fundamentals: Introduction wireless transmission, Frequencies for radio transmission, Signals, Antennas, Signal propagation, Multiplexing, Modulations spread spectrum, MAC, SDMA, FDMA, TDMA, CDMA, Cellular wireless networks.

Unit-II(Telecommunications Systems)

(Credits: 2)

Telecommunications Systems: GSM, System architecture protocols, Connection establishment, Frequency alocation, Routing, handover, Security, GPRS. Wireless Networks: Wireless LAN-IEEE 802.11 Standards, Architecture, Services HIPERLAN, AdHoc Network, Bluetooth mobile network layer: Mobile IP, Dynamic host configuration protocol.

Unit-III(Routing)

(Credits: 2)

Routing: DSDV, DSR, Alternative metrics, Wireless application protocol. Mobile Ad hoc Networks: Overview, Properties of a MANET, Spectrum of MANET applications, Routing and various routing algorithms, Security in MANET.

Recommended Books & References:
1. W. Stallings, *Wireless Communications and Networks,* (2e)Pearson Education, 2018.
2. J. Schiller, *Mobile Communications,* (2e), *Pearson Education*, 2009.
3. K. Garg, *Mobile Computing: Theory and Practice,* (1e) Pearson Education India, 2010.

COURSE: NATURAL LANGUAGE PROCESSING

(Credit: 6)

Course Outcome: To develop the understanding of various language formats used in computer systems and how these languages processed in the computer systems.

Unit-I(Introduction)

(Credits: 2)

Introduction: Ambiguity and uncertainty in language, processing paradigms, phases in natural language processing. Text representation in computers: encoding schemes. Linguistics resources: Introduction to corpus, elements in balanced corpus, WordNet, VerbNet. Part of Speech tagging: Stochastic POS tagging, HMM, Transformation based tagging (TBL), handling of unknown words, named entities, multi word expressions.

Unit-II(Natural language grammars)

(Credits: 2)

Natural language grammars: lexeme, phonemes, phrases and idioms, word order, agreement, tense, aspect and mood and agreement, context free grammar, spoken language syntax. Parsing- unification, probabilistic parsing, tree-bank. Semantics: meaning representation, semantic analysis, and lexical semantics.

Unit-III(Word Sense Disambiguation)

(Credits: 2)

Word Sense Disambiguation: selection restriction, machine learning approaches, dictionary based approaches. Discourse: Reference resolution, constraints on co-reference, algorithm for pronoun resolution, text coherence, discourse structure. Real time Applications of NLP: text to speech, text summarization, information retrieval, sentiment analysis, machine translation.

Recommended Books & References:
1. D. Jurafsky, J. H. Martin, *Speech and Language Processing*, (2e), Pearson Education, 2009.
2. T. Siddiqui, U. S. Tiwary, *Natural language processing and Information retrieval,* Oxford University Press, 2008.

COURSE: COMPUTER VISION

(Credit: 6)

Course Outcome: To develop the understanding of a computer system which uses various algorithms and methods to enhance images, graphics, and use of neural networks.

Unit-I(Introduction)

(Credits: 2)

Introduction to computer vision and its applications, Geometric Image Features: Differential Geometry, Contour Geometry, analytical image features: Euclidean geometry, Geometric Camera Parameters, Calibration methods, Image formation, Liner Filtering: Linear filters and convolution, shift invariant linear systems, spatial frequency and Fourier transforms,

Unit-II(Image Properties)

(Credits: 2)

Image transformations and Colour models, Edge Detection methods (Laplacian detectors and Canny edge detector), Points and patches, Harris corner detector, Histogram of Gradients, Difference of Gaussian detector, SIFT, Colour and Texture, Feature based alignment, least squares and RANSAC, Camera models, Camera calibration,

Unit-III(Methods and properties)

(Credits: 2)

Stereo vision, Stereo correspondence, Epipolar geometry Optical flow, Lucas Kanade method, KLT tracking method, Mean shift method, Dense motion estimation, Support Vector Machines, Face detection and recognition, Bag of words, Deep convolution neural network.

Recommended Books & References:

1. R. Szeliski, *Computer Vision: Algorithms and Applications*, Springer 2011.
2. D. A. Forsyth, J. Ponce, *Computer Vision: A Modern Approach*, (2e), PHI learning, 2012
3. J. E. Solem, *Programming Computer Vision with Python*, O'Reilly, 2012.

VI SEMESTER

COURSE: ORGANISATION AND MANAGEMENT

(Credit: 6)

Course Outcome: To develop the understanding of management in organizations, personal management and entrepreneurship.

Unit-I(Introduction) (Credits: 2)

Meaning and definition of an organization, Necessity of Organization, Principles of Organization, Formal and Informal Organizations. Management: Functions of Management, Levels of Management, Managerial Skills, Importance of Management, Models of Management, Scientific Management, Forms of Ownership, Organizational Structures, Purchasing and Marketing Management, Functions of Purchasing Department, Methods of Purchasing, Marketing, Functions of Marketing, Advertising.

Unit-II(Personal Management) (Credits: 2)

Introduction, Functions of Personal Management, Development of Personal Policy, Manpower Planning, Recruitment and Selection of manpower**.**Motivation – Introduction, Human needs, Maslow's Hierarchy of needs, Types of Motivation, Techniques of Motivation, Motivation Theories, McGregor's Theory, Herzberg's Hygiene Maintenance Theory. Leadership - Introduction Qualities of a good Leader, Leadership Styles, Leadership Approach, Leadership Theories.

Unit-III(Entrepreneurship) (Credits: 2)

Entrepreneurship-Introduction, Entrepreneurship Development, Entrepreneurial Characteristics, Need for Promotion of Entrepreneurship, Steps for establishing small scale unit**.**Data and Information; Need, function and Importance of MIS; Evolution of MIS; Organizational Structure and MIS, Computers and MIS, Classification of Information Systems, Information Support for functional areas of management.

Recommended Books & References:

1.Koontz, Harold, Cyril O'Donnell, and Heinz Weihrich, *Essentials of Management*,(1e)
    Tata McGraw-Hill, New Delhi, 1978.
   2. Robbins, Stephen P, and Mary Coulter, *Management, Prentice Hall*, (2e) New Delhi, 1997.
   3. E. S. Buffa and R. K. Sarin, *Modern Production / Operations Management*, (8e), Wiley, 1987
   4.H. J. Arnold and D. C. Feldman, *Organizational Behavior*, McGraw – Hill, 1986.
   5. Aswathappa K, *Human Resource and Personnel Management*, Tata McGraw Hill, 2005.
   6. William Wether & Keith Davis, *Human Resource and Personnel Management*, McGraw Hill, 1986.

COURSE: SOFTWARE ENGINEERING

(Credit: 6)

Course Outcome: To develop the understanding of software, models for software management, development and product engineering.

Theory (Credit: 4.5)

Unit-I(Introduction) **(Credits: 1.5)**

Introduction: The Evolving Role of Software, The changing nature of software, Legacy software, Software Myths. Software Engineering: A Layered Technology, a Process Framework, the Capability Maturity Model Integration (CMMI), Specialized Process Models, and the Unified Process.

Unit-II(Agile Development)

(Credits: 1.5)

Agile development: Agile Process Models Software Engineering Practice, Communication Practice, Planning Practices, Modeling Practices, Construction Practice, Deployment Computer–Based Systems, The System Engineering Hierarchy, Business Process Engineering: An Overview.

Unit-III(Product Engineering)

(Credits: 1.5)

Product Engineering: An Overview, Data Modeling Concepts, Object Oriented Analysis, Flow-Oriented Modeling, Taxonomy of Quality Attributes, Perspectives of Quality, Quality System, Software Quality Assurance, Capability Maturity Model Observation on Estimation, The Project Planning Process, Software Scope and Feasibility, Human Resources, Empirical Estimation Model, Introduction To DevOps, Cloud Computing And Virtualization, Migration to DevOps, DevOps Tools.

Practical

(Credit: 1.5)
1. Introduction: Agile development: Agile Process Models Software, Communication Practice, Planning Practices, Modeling Practices, Construction Practice, Deployment of Computer–Based Systems, The System Engineering Hierarchy.
2. Business Process Engineering: An Overview,
3. Product Engineering: An Overview, Data Modelling Concepts, Object Oriented Analysis, Flow-Oriented Modeling, Taxonomy of Quality Attributes, Perspectives of Quality, Quality System, Software Quality Assurance, Capability Maturity Model Observation on Estimation using Projects,
4. The Project Planning Process, Software Scope and Feasibility, Human Resources, Empirical Estimation Model ,
5. Introduction To DevOps, Cloud Computing And Virtualization,
6. Migration to DevOps, DevOps Tools,

Note: All above will be facilitated using Software Projects assigned to the students.

Recommended Books & References:
1. R. Pressman, *Software Engineering: A Practitioners Approach*, (8e), McGrawHill Pubs, 2019.
2. M. Walls, *Building a Dev Ops Culture*, O'Reilly Publications, 2013.
3. J. Joyner, *Dev Ops for Beginners, Dev Ops Software Development Method guide for software developers and IT professionals,* Mihails Konoplovs, 2015.

COURSE: INFORMATION SYSTEMS SECURITY

(Credit: 6)

Course Outcome: To develop the understanding of security and its concepts, techniques used in security, some problems with live solutions and the usage of security theoretically and practically.

Unit-I(Introduction)

(Credits: 1.5)

Introduction: Basic objectives of cryptography, Secret-key and public-key cryptography, One-way trapdoor one-way functions, Cryptanalysis, Attack models, Classical cryptography. Block ciphers: Modes of operation, DES and its variants, AES, Linear and differential cryptanalysis. Message digest: Properties of hash functions, MD2, MD5 and SHA-1, Keyed hash functions, Attacks on hash functions.

Unit-II(Public key Infrastructure)

(Credits: 1.5)

Public-key parameters: Modular arithmetic, Primality testing, Chinese remainder theorem, Modular square roots, Finite field. Intractable problems: Integer factorization problem, RSA problem, Modular square root problem, Discrete logarithm problem, Diffie-Hellman problem, Known algorithms for solving the intractable problems. Public-key encryption: RSA, Rabin and EIGamal schemes, Elliptic and hyper-elliptic curve cryptography, Side channel attacks, Diffie-Hellman and MQV key exchange.

Unit-III(Digital signatures and authentication)

(Credits: 1.5)

Digital signatures: RSA, DSA and NR signature schemes, blind and undeniable signatures. Entity authentication: Passwords, Challenge-response algorithms, Zero-knowledge protocols. Network security: Certification, public-key infrastructure (PKI), secure socket layer (SSL), Kerberos.

Practical (Credits: 1.5).
1. Substitution and Transposition Cipher Implementation: Caesar Cipher, Playfair Cipher, Hill Cipher, Vigenere Cipher, Rail fence.
2. Symmetric and Asymmetric Cipher Implementation: DES, RSA, Diffie-Hellman, MD5, SHA-1.
3. Signature Schemes Implementation: Digital Signature Standard, GnuPG API.
4. Demonstration of secure data storage: Setup of honey pot and monitoring on network using KF sensors.
5. Installation of rootkits.
6. Wireless audit on an access point or a router, WEP and WPA (Net Stumbler).
7. Intrusion detection system using snort.

Recommended Books & References:
1. B. A. Forouzan, D. Mukhopadhyay, *Cryptography and Network Security*, (2e), Mc-Graw Hill, , 2008.
2. W. Stallings, *Cryptography and Network Security: Principles and Practice*, (5e),Prentice Hall, 2010.
3. J. Pieprzyk, T. Hardjono, J. Seberry, *Fundamentals of Computer Security*, Springer International Edition, 2003.
4. A. J. Menezes, P. C. V. Oorschot ,S. A. Vanstone, *Handbook of Applied Cryptography*, CRC Press.

COURSE: DATA SCIENCE AND MACHINE LEARNING

(Credit: 6)

Course Outcome: To develop the understanding of innovative ideas using machine learning and data science. A better understanding of various algorithms and rules included in the emerging technologies.

Unit-I(Data Science)

(Credits: 2)

Data Science: Descriptive Statistics, Probability Distribution, regression analysis, ANOVA. Machine Learning: Goals, Applications of ML, developing a learning system, training data, concept representation, function approximation. Decision Tree Learning: Representing concepts as decision trees, Recursive induction of decision trees, best splitting attribute, entropy, information gain., Occam's razor, Overfitting, noisy data, and pruning.

Unit-II(Artificial Neural Networks)

(Credits: 2)

Artificial Neural Networks: Neurons and biological motivation. Linear threshold units, Perceptron, representational limitation and gradient descent training, Multilayer networks and backpropagation. Hidden layers and constructing intermediate, distributed representations, Overfitting, learning network structure, recurrent networks.Comparing learning algorithms: cross-validation, learning curves, and statistical hypothesis testing. Support Vector Machines: Maximum margin linear separators. Kernels for learning non-linear functions.

Unit-III(Bayesian Learning)

(Credits: 2)

Bayesian Learning: Probability theory and Bayes rule. Naive Bayes learning algorithm, Logistic regression, Bayes nets and Markov nets for representing dependencies. Instance-Based Learning: k-Nearest-neighbor algorithm, Case-based learning, Relevance feedback and Rocchio algorithm. Naive Bayes for text. Clustering and Unsupervised Learning: Hierarchical Agglomerative Clustering, k-means partitioned clustering, expectation maximization (EM) for soft clustering. Ensemble Learning: Bagging, boosting, and Decorate. Active learning with ensembles.

Recommended Books & References:
1. G. James, D. Witten, T Hastie, R Tibshirani, *An introduction to statistical learning with applications in R,* Springer, 2013.
2. J. Han, M. Kamber, J. Pei, *Data Mining concepts and techniques, (2e),* Morgan Kaufmann- Elsevier, 2011.
3. T. Hastie, R. Tibshirani, J. Friedman, *The Elements of Statistical Learning*, (2e), Springer, 2009.
4. K. Murphy, *Machine Learning: A Probabilistic Perspective,* MIT Press, 2012.
5. T. M. Mitchell, *Machine Learning*, (Indian Edition), MacGraw Hill, 2017.
6. C. Bishop, *Neural Networks for Pattern Recognition*, Oxford University Press, 2019

Subject: MINOR PROJECT (Credit: 2)

In this course student has to select a project work based on a topic of interest. Periodically the supervisor will evaluate the implementation. This work, started in eighth semester of which, the student will be evaluated internally and externally.

Open Electives:

COURSE: FUNDAMENTAL OF DATABASES

(Credits: 6)

Course Outcome: To develop the understanding of Basics of database and its working concepts using SQL Queries for various operations.

Unit-I(Introduction to Databases)

(Credits: 2)

Introduction: Database-System Applications, Relational Databases, Database Design, Data Storage and Querying, Transaction Management, Database Architecture.

Unit-II(File management system)

(Credits: 2)

File Management System: Indexing and Hashing. Relational Algebra: Algebra, Tuple Calculus, Domain Calculus. SQL: Data Definition Language, Data manipulation language, SQL Data Types and Schemas, Integrity Constraints, Basic Structure of SQL Queries, Set Operations, Aggregate Functions, Null Values, Nested Sub-queries, Correlated queries. Join: Inner, Outer, Left, Right and Natural.

Unit-III(The Entity Relationship Model)

(Credits: 2)

The Entity-Relationship Model: Constraints, Entity-Relationship Diagrams, Entity-Relationship Design Issues, Weak Entity Sets, Extended E-R Features. Normalization: Normal Forms, BCNF.

Recommended Books & References:

1. R. Elmasri, S. B. Navathe, *Fundamentals of Database Systems*, (6e), Addison-Wesley, 2010.
2. R. Ramakrishnan, J. Gehrke, *Database Management Systems*, (3e), McGraw Hill, 2014.

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

COURSE: PRINCIPLES OF PROGRAMMING LANGUAGES

(Credits: 6)

Course Outcome: To develop the understanding of programming language in context of syntax and semantics, data types, and concepts of object oriented programming in various programming languages.

Unit-I(Preliminary Concepts of Programming Languages)

(Credits: 2)

Preliminary Concepts: Concepts of programming languages. Syntax and Semantics: general Problem of describing Syntax and Semantics. Data types: Primitive, character, user defined, array, associative record, union, pointer and reference types.

Unit-II(Expressions and Statements)

(Credits: 2)

Expressions and Statements: Assignment Statements, Control Structures. Subprograms and Blocks: Fundamentals of sub-programs, Scope of life time of variables, static and dynamic scope, design issues of sub-programs and operations. Abstract Data types: Abstractions and encapsulation, introductions to data abstraction, design issues, language examples.

Unit-III(Concurrency and exception handling)

(Credits: 2)

Concurrency: Subprogram level concurrency, semaphores, monitors, massage passing, Java threads, C# threads. Exception handling: Exceptions, exception Propagation, Exception handler in Ada, C++ and Java, Logic Programming Language: Introduction and overview of logic programming.

Recommended Books & References:

1. R. W. Sebesta, *Concepts of Programming Languages*, (10e), Pearson Education, 2008.
2. D. A. Watt, *Programming Language Design Concepts*, Wiley, (2e), 2007.
3. B. Tucker, R. E. Noonan, *Programming Languages*, (2e), TMH, 2007.
4. K. C. Louden, *Programming Languages*, (2e), Thomson, 2003.
5. T. W. Pratt, M. V. Zelkowitz, T. V. Gopal, *Programming Languages: Design and Implementation*, (4e), PHI, 2006

COURSE: ENTERPRISE RESOURCE PLANNING

(Credit: 6)

Course Outcome: To develop the understanding of enterprise resource planning and how engineering works in the businesses. Also, the understanding of software development life cycle in nutshell.

Unit-I(ERP Overview)

(Credits: 2)

ERP Overview: ERP Components, ERP Benefits. Business Process Reengineering (BPA): BPA life cycle, BPA components. Data warehousing, Datamining, Supply chain Management; ERP: evolution, a Manufacturing Perspective, ERP Module, ERP Market, ERP implementation life cycle, Options of various paradigms, Identification of suitable platforms.

Unit-II(SDLC/SSAD)

(Credits: 2)

SDLC/SSAD: Role of SDLC/SSAD, Object oriented architecture. ERP Implementation: introduction, pre evaluation screening, package evaluation, project planning phase, Gap analysis, Hidden costs, Major Vendors, Consultant Employees, Human Resource.

Unit-III(ERP & E-Commerce)

(Credits: 2)

ERP & E-Commerce: Future Directives- in ERP, ERP and Internet, Critical Factors guiding selection and evaluation of ERP, Strategies for its successful implementation, Impediments and initiatives to achieve success, Critical success and failure factors, Integrating of ERP into organizational culture. Using ERP tool: Case study of a system using SAP or ORACLE or open source ERP.

Recommended Books & References:

1. S. R. Magal, J. Word, *Integrated Business Processes with ERP Systems*, (2e), John Wiley & Sons, 2011.
2. M. Sumner, *Enterprise Resource Planning*, Pearson Education, (2e), 2006.
3. E. Monk, B. Wagner, *Concepts in Enterprise Resource Planning*, (3e), Thomson Course Technology, 2006.

COURSE: PRINCIPLES OF MACHINE LEARNING

(Credit: 6)

Course Outcome: To develop the understanding of artificial intelligence and basics of data mining, roles and uses of data mining and various algorithms theoretically. Also, the uses of neural networks and its types.

Unit-I (Introduction to Artificial Intelligence)

(Credits: 2)

Introduction to Artificial Intelligence: Foundations, scope, problems. Problem-solving through Searching: forward and backward, state-space, blind, heuristic, problem-reduction, minimax.
Supervised Learning: Process for feature selection, over-parameterization and the curse of dimensionality, regularization, cross validation.

Unit-II (Classification and Regression)

(Credits: 2)

Classification: operation of classifiers, regression as a classifier, metrics used to evaluate classifiers, SVM, Naïve Bayes, KNN. Regression: operation of regression models, prediction and forecasting, metrics used to evaluate regression models.

Unit-III (Neural Networks)

(Credits: 2)

Neural networks: Feed forward NN, Feed backward NN, Convolutional Neural network. Unsupervised Learning: K-mean clustering. Algorithmic Learning Theory and Applications: Mistake bound model, PAC Model.

Recommended Books & References:

1. G. F. Luger, W. A. Stubblefield, *Artificial Intelligence - Structures and Strategies for Complex Problem Solving.* (5e), Addison Wesley, 2005.
2. P Baldi, S Brunak, *Bioinformatics: A Machine Learning Approach,* (2e) MIT Press, 2002.
3. T. M. Mitchell, *Machine Learning,* McGraw-Hill Education, 2017.
4. Y Abu-Mostafa, M. Magdon-Ismail, H.T. Lin, H-T. *Learning from Data*. AML Book, 2012.

Programme Electives:

COURSE: INFORMATION RETRIEVAL

(Credits: 6)

Course Outcome: To develop the understanding of information retrieval using some terminologies and the concepts behind the search engines.

Unit-I(Introduction to IR)

(Credits: 2)

Introduction to IR: IR Concepts, Boolean Retrievals- An Example Information Retrieval Problem, A First Take at Building an Inverted Index, Processing Boolean Queries. The Term Vocabulary and Postings Lists: Document Delineation and Character Sequence Decoding, Determining the Vocabulary of Terms. Dictionaries and Tolerant Retrieval: Search Structures for Dictionaries, Wildcard Queries, Spelling Correction, Phonetic Correction.

Unit-II(Index Construction and Information retrieval)

(Credits: 2)

Index Construction: Hardware Basics Blocked Sort-Based Indexing. Scoring, Term Weighting and the Vector Space Model: Parametric and Zone Indexes, Term Frequency and Weighting, The Vector Space Model for Scoring. Evaluation in Information Retrieval: Information Retrieval System Evaluation, Standard Test Collections, Evaluation of Unranked Retrieval Sets, Evaluation of Ranked Retrieval Results.

Unit-III(XML and Web search)

(Credits: 2)

XML Retrieval: Basic XML Concepts, Challenges in XML Retrieval, A Vector Space Model for XML Retrieval, Evaluation of XML Retrieval, Text-Centric vs. Data-Centric XML Retrieval. Web Search Basics: Web Characteristics, Advertising as the Economic Model, The Search User Experience, Index Size and Estimation, Near-Duplicates and Shingling. Web Crawling and Indexes: Overview, Crawling, Distributing Indexes, Connectivity Servers. Link Analysis: The Web as a Graph, Page Rank, Hubs and Authorities.

Recommended Books & References:
1. C. Manning, P. Raghavan, H. Schütze, *Introduction to Information Retrieval,* Cambridge University Press, 2009.
2. R. Baeza-Yate, B. Ribeiro-Neto, *Modern Information Retrieval,* (2e), Addison Wesley, 2012.
3. S. Chakrabarti, *Mining the Web: discovering knowledge from hypertext data,* (2e), Morgan Kaufmann, 2002.
4. D. A. Grossman , O. Frieder, *Information Retrieval: Algorithms, and Heuristics, (2e)*, Springer, 2004.

COURSE: COMPUTER GRAPHICS & MULTIMEDIA

(Credit: 6)

Course Outcome: To develop the understanding of computer graphics, algorithms behind the graphics, and how multimedia systems work practically and theoretically both.

Unit-I(Introduction to Computer Graphics)

(Credits: 2)

Basics of Computer Graphics: Pixel, Frame buffer, Application of computer graphics. Graphic Display Devices: Cathode Ray Tube, Light emitting diode, DVST, Random and Raster Scan displays. Scan Conversion: Line Generation using digital differential analyzer (DDA), bresenham's Algorithm, Circle generation algorithm, Ellipse generation algorithm, Polygon generation and filling algorithms.

Unit-II(Transformations of images)

(Credits: 2)

Two Dimensional Transformations: Introduction, homogeneous representation of points, basic transformation like Translation, Rotation, Scaling, Reflection, Shear. Clipping and Windowing: Cohen Sutherland Algorithm, liang Barsky algorithm, Sutherland Hodgman Algorithm. Three dimensional transformation: Translation, Rotation, Scaling and Reflection. Projection: Introduction, Types of projection. Hidden Surface elimination: Depth comparison, Back face detection algorithm, Painter's Algorithm, Z-Buffer Algorithm. Basic Illumination Model: Diffuse reflection, Specular reflection, Phong and Gouraud shading.

Unit-III(Introduction to Multimedia)

(Credits: 2)

Introduction to Multimedia: Concepts and uses, hypertext and hypermedia, image, video and audio standards, text compression algorithm. Animation: types, techniques, key frame animation, utility, morphing.

Recommended Books & References:

1. D. Hearn, M. P. Baker, *Computer Graphics with OpenGL*, (4e), Pearson Education, 2014.
2. R. Steinmetz, K. Nahrstedt, *Multimedia Systems*, Springer, 2004
3. J. F. Hughes, J. D. Foley, *Computer graphics Principles and Practice*,(3e), Pearson Education, 2014.
4. R. Steinmetz, K. Nahrstedt, *Multimedia Fundamentals: Media Coding and Content Processing*, (2e), Pearson Education, 2004

COURSE: USER INTERFACE DESIGN

(Credit: 6)

Course Outcome: To develop the understanding of user interface and its designing principals, models and use cases with real life projects.

Unit-I(UI Design Process)

(Credits: 2)

UI Design Process: Design Process Introduction, Designing to Address a Problem w/o Solution Ideas, Designing for a known solution direction, Designing to iterate on/improve an existing solution, Common Elements: Usability, Engineering and Task-Centered Approaches, Use Cases, Personas, Tasks, and Scenarios, Design-Centered Methods & When They Work Best, Pulling it all Together, Psychology and Human Factors for User Interface Design: Introduction, Fitts' Law, Short- and long-term memory, attention, Perception and visualization, hierarchy, Mistakes, Errors, and Slips, Conceptual models, The Gulf of Execution and the Gulf of Evaluation,

Unit-II(Designing Principals and personas)

(Credits: 2)

Design Principles: Visibility, Feedback, Mappings, Constraints, Interacting beyond individuals (social psychology), High-Level Models: Distributed Cognition, Activity Theory, Situated Action, User Research Methods: User Research to Design, Introduction to User Research, Interview and Focus Groups, Observations, Contextual Inquiry, Ethics and Consent, Design a User Research Protocol, Log Analysis, Surveys and Questionnaires, Analyzing and Delivering User Research: Introduction: Translating User Research to Support Design, Qualitative Analysis, Quantitative Analysis, Personas I: What They Are; How They're Used, Personas II: Walking Through Examples, Use Cases, Tasks and Walkthrough Scenarios, Implications for Design,

Unit-III(Ideation and Idea selection)

(Credits: 2)

Ideation and Idea Selection: rom Research to Ideas, Ideation, Idea Selection, Communicating Ideas to Stakeholders, Good User Interfaces principles: learnability, visibility, error prevention, efficiency, and graphic design) and the human capabilities that motivate them (including perception, motor skills, color vision, attention, and human error), Implementation of UI: building user interfaces, including low-fidelity prototypes, etc Empirical research involving novel user interfaces.

Recommended Books & References:
1.Norman, A. Donald, *The Design of Everyday Things.*MIT Press, 2014.
2.Coursera platform and internet resources

COURSE: DIGITAL IMAGE PROCESSING

(Credit: 6)

Course Outcome: To develop the understanding of image processing, its types and various uses, and the use of image are processing in the authentication.

Unit-I(Introduction to Image Processing)

(Credits: 2)

Introduction to image processing: steps in image processing, Image file formats, Basic relationships between pixels, Colour Models. Image Enhancement and Restoration: Image histogram, Spatial domain enhancement, point operations, Log transformation, Power-law transformation.

Unit-II(Image transformations)

(Credits: 2)

Frequency domain enhancement: introduction to image transforms, Fourier transform, 2D-DFT. Restoration: Noise models, Restoration using inverse filtering and Wiener filtering. Image Coding and Compression: Lossless compression, Lossy compression, JPEG, MPEG.

Unit-III(Image Segmentation and Representation)

(Credits: 2)

Image Segmentation and Representation: Grey level features, edges and lines, similarity, correlation, template matching, edge detection using templates, Representation scheme, boundary descriptors, regional descriptors, Image Morphology. Biometric Authentication, Object Detection.

Recommended Books & References:

1. K. R. Castleman, *Digital Image Processing*, (2e), Pearson Education, 2011.
2. R. C. Gonzalez, R. E. Woods, *Digital Image Processing*, (4e), Pearson Education, 2018.
3. A. K. Jain, *Fundamentals of Digital Image Processing*, Pearson Education, Reprint 2015.
4. S. Jayaraman, S. Esakkirajan, T Veerakumar, *Digital Image Processing*, Tata McGraw Hill Education, 2009.
5. R. C. Gonzalez, R. E. Woods, S. Eddins, *Digital Image Processing using MATLAB*, (2e), Pearson Education.
6. A. McAndrew, *Introduction to Image processing using MATLAB*, Cengage Learning Publisher, 2007.
7. Prateek Joshi, *OpenCV with Python By Example,* (1e) PACKT Publishing, 2018.

COURSE: INTERNET OF THINGS

(Credit: 6)

Course Outcome: To develop the understanding of fundamental concepts of Internet of Things and its applications, working of IoT system and protocols related to it.

Unit-I(Introduction)

(Credits: 2)

Introduction: Analog and digital signals, serial communication, RF and sensors; Introduction to JSON/XML. Programming on Development Boards: Understanding of the board, tool chain and development environment setup; Sensors and Actuators: Understanding and using analog, digital, SPI, UART, I2C.

Unit-II(Nodes and Communications)

(Credits: 2)

Nodes and communication protocols: Understanding usage of nodes and gateways for sensor communication and external communication, RF, Zigbee, BT, WI-FI, GSM.

Unit-III(IoT and Cloud)

(Credits: 2)

IoT Cloud Platform, Cloud using Web Services, Cloud Computing Services for Sensor Management, Python Script; Data Analytics: Mongo DB, Map Reduce, Using cloud APIs for analytics, Visualization, NVD3, Mobile interfacing.

Recommended Books & References:
1. V. Madisetti, A. Bahga, *Internet of Things: A Hands-On- Approach*, VPT, 2014.
2. R. Buyya, A. V. Dastjerdi, *Internet of Things Principles and Paradigms*, 2016.
3. H. Geng, *Internet of Things Principles and Data Analytics Handbook*, Wiley, 2017.
4. P. Raj, A. C. Raman, *The Internet of Things Enabling Technologies, Platforms, and Use Cases*, CRC Press, 2017.

COURSE: BIG DATA ANALYTICS

(Credit: 6)

Course Outcome: To develop the understanding of Big Data and its management, Advanced analytics algorithms, and file systems used to manage the big data.

Unit-I(Introduction to Big Data)

(Credits: 2)

INTRODUCTION: Introduction to big data, definition, need and evolution of BDA, Applications of Big Data. Analysing big data: Sources of big data, Characteristics of Big Data(4 V's), Drivers of BDA, Structured vs. Unstructured data, Data Marts, Differences between traditional DWDM and BDA. Data Processing: Data Wrangling, Data Munging, Data Jujitsu. Data Visualisation: Why to visualize data. Data Analytics Life Cycle.

Unit-II(Advanced Analytics Algorithms)

(Credits: 2)

Advanced Analytics Algorithms: Introduction using R – Theory and Methods Overview: K-means clustering, Association Rules, Linear Regression, Logistic Regression, Naïve Bayesian Classifiers, Decision Trees, Time Series Analysis, Text Analytics; Statistics for Model Building and Evaluation: Statistics in the Analytic Lifecycle, Hypothesis Testing, Difference of means.

Unit-III(HADOOP Framework)

(Credits: 2)

Hadoop Framework: Introduction to Hadoop, HDFS - Hadoop Distributed File system, Map Reduce Programming, Pig. ETL & Batch Processing with Hadoop: ETL & Data Warehousing, Ingesting data into Big Data Platforms using Apache Sqoop & Flume, Big Data Analytics using Apache Hive, NoSQL databases for Big Data Storage Applications (HBase), Workflow management for Hadoop using Oozie Spark: Introduction to Spark, SparkSQL, MLLib: Regression, Clustering & Classification using Spark MLLib.

Recommended Books & References:
1. B. Schmarzo, *Big Data: Understanding How Data Powers Big Business,* Wiley.2013
2. A. Jorgensen, J. Rowland-Jones, J. Welch, *Microsoft Big Data Solutions,* Wiley.,2014
3. J. Thompson, S. P. Rogers, *Analytics: How to Win with Intelligence, Technics, LLC Publications ,* 2017

COURSE: SOFTWARE DEFINED NETWORKS

(Credit: 6)

Course Outcome: To develop the understanding of working of software defined working, programming behind this and network function virtualization.

Unit-I(Software Defined Networking)

(Credits: 2)

Software Defined Networking (SDN): Separation of control plane and data plane, IETF forces, Active networking. Control and Data Plane Separation: Concepts, Advantages and disadvantages, the Open flow protocol.

Unit-II(Control Plane and SDN Programming)

(Credits: 2)

Control Plane: Overview, Existing SDN controllers including floodlight and open daylight projects. Customization of Control Plane: Switching and firewall implementation using SDN concepts. Data Plane: Software-based and Hardware-based, Programmable network, Mininet based examples. Programming SDNs: Northbound application programming interface, current languages and tools, Composition of SDNs.

Unit-III(Network Functions Virtualization)

(Credits: 2)

Network Functions Virtualization (NFV): Concepts, Implementation, Applications. Use Cases of SDNs: Data Centers, Internet exchange points, Backbone networks, Home networks, Traffic engineering. Programming Assignments for implementing some of the theoretical concepts listed above.

Recommended Books & References:
1. T. D. Nadeau, K. Gray, *SDN: Software Defined Networks, An Authoritative Review of Network Programmability Technologies,* (1e) O'Reilly Media, 2013.
2. P. Goransson, C. Black, *Software Defined Networks: A Comprehensive Approach,* (2e) Morgan Kaufmann, 2016.
3. F. Hu, *Network Innovation through Open Flow and SDN: Principles and Design*, CRC Press, 2014.
4. V. Tiwari, *SDN and Open Flow for Beginners, Amazon Digital Services, Inc.,* ASIN, 2013.
5. S Subramanian, *Software Defined Networking with OpenStack,* Packt Publishing, 2016.

COURSE: DEEP NEURAL NETWORK   (Credit: 6)

Course Outcome: To develop the understanding of neural networks using advanced methods in neural networks and the working of the neural networks.

Unit-*I*(Introduction)   (Credits: 2)

Introduction of Deep Learning, Basics of Machine Learning, Neural Network, Activation function, Gradient Descent, Stochastic Gradient Descent, backpropagation, Deep Convolution Neural network: convolution operation, ReLU Layer, Pooling Layer, Flattening, fully connected layer, softmax and cross entropy,

Unit-II(Recurrent Neural networks)   (Credits: 2)

Recurrent Neural network: Vanishing Gradient Problem, LSTMs, LSTM variations, Self-organizing Map (SOM), K-means clustering, Boltzmann Machine, Energy-based Models, Contrastive Divergence,

Unit-III(Deep Belief Networks)   (Credits: 2)

Deep Belief Networks, autoencoders, training of auto encode, over complete hidden layers, sparse autoencoders, denoising autoencoders, contractive autoencoders, stacked autoencoders, deep autoencoders.

Recommended Books & References:
1. I. Goodfellow, Y. Bengio , A. Courville, *Deep Learning*,   MIT Press 2016.
2. S. Haykin, *Neural Networks and Learning Machines*, (3e), PHI, 2008.

COURSE: SOCIAL NETWORK ANALYSIS

(Credit: 6)

Course Outcome: To develop the understanding of social web and working of different models used in the social network analysis.

Unit-I(Introduction to Social Web)

(Credits: 2)

Introduction to Social Web: Nodes, Edges and Network measures, Describing Nodes and Edges, Describing Networks, Layouts. Visualizing Network features: The role of Tie Strength, Measuring Tie Strength, Tie Strength and Network Structure, Tie Strength and Network Propagation, Link Prediction, Entity Resolution. Link Prediction: Case Study Friend recommendation.

Unit-II(Communities)

(Credits: 2.5)

Communities: Introduction, Communities in Context, Quality Functions. Algorithms: Clustering-based, Newman and Girvan- Divisive clustering, Newman-Modularity maximization, Clauset-Greedy optimization of modularity, Louvain Method-Hierarchical clustering, Agglomerative clustering, Falkowski(DENGRAPH)-Density-based clustering, Nikolaev-Entropy centrality-based clustering, Clique-based Methods for Overlapping Community Detection, Palla-Clique percolation method, Lancichinetti-Fitness function, Du-Kernels-based clustering, Shen-Agglomerative hierarchical clustering, Evans-Line graph, clique graph, Label Propagation-based Community Detection.

Unit-III(Introduction to social influence)

(Credits: 1.5)

Introduction to Social Influence: Influence Related Statistics, Social Similarity and Influence, Homophile, Existential Test for Social Influence, Influence and Actions, Influence and Interaction, Influence Maximization in Viral Marketing.

Recommended Books & References:

1. J. Goldbeck, *Analyzing the Social Web*,   Morgan Kaufmann Publications, 2013.
2. C. C. Aggarwal, *Social Network Data Analytics*,   Springer Publications, 2011.
3. J. Scott, *Social Network Analysis*, (3e), SAGE Publications Limited, 2013.
4. J. Goldman, *Facebook Cookbook*,   O'Reilly, 2009.
5. S. Kumar, F. Morstatter, H. Liu, *Twitter Data Analytics*,   Springer Publications, 2013.

COURSE: SOFTWARE TESTING

(Credit: 6)

Course Outcome: To develop the understanding of fundamentals of software testing, various techniques of testing like manual and automated testing.

Unit-I(Introduction)

(Credits: 2)

Introduction and concept learning: Basic definitions, Testing axioms, Purpose of Software Testing, Software Testing Principles, The Tester's Role in a Software Development Organization, Origins of Defects, Cost of defects, Defect Classes, Defect Prevention strategies, Defect Repository, Strategies for Software Testing, Testing Activities, Mistakes, Faults & Failures, Verification and Formal Methods, Planning for Verification and Validation.

Unit-II(Manual Testing Methods)

(Credits: 2.5)

White-Box Testing: Test Adequacy Criteria, Static Testing, Structural Testing, Code Complexity Testing, Mutation Testing, Data Flow Testing. Black-Box Testing: Test Case Design Criteria, Requirement Based Testing, Positive and Negative Testing, Boundary Value Analysis, Equivalence Partitioning State Based Testing, Domain Testing. Functional Testing: Test Plan, Test Management, Test Execution and Reporting, Test Specialist Skills, Tester's Workbench and Tool Categories, Debugging, Test Bed, Traceability and Testability, Attributes of Testable Requirements, Test Matrix, Types of Testing Documentation, Verification Testing, Validation Testing, Integration Testing, System and Acceptance Testing, GUI Testing, Regression Testing, Selection, Minimization and Prioritization of Test Cases for Regression Testing, Creating Test Cases from Requirements and Use cases, Test Design.

Unit-III(Test Automation)

(Credits: 1.5)

Test Automation: Software test automation – skill needed for automation – scope of automation – design and architecture for automation – requirements for a test tool – challenges in automation – Test metrics and measurements – project, progress and productivity metrics.

Recommended Books & References:

1. W. E. Perry, *Effective Methods for Software Testing,* John Wiley and Sons, 2000.
2. R. Patton, *Software Testing*, Sams Publishing, 2005.
3. A. P. Mathur*, Foundations of Software Testing*, Pearson Education, 2013.
4. J. L. Mitchell, R. Black, *Advanced Software Testing—Vol. 3*, Rocky Nook, 2015.

COURSE: LINUX SYSTEM AND SHELL PROGRAMMING

(Credit: 6)

Course Outcomes: To develop the understanding of Linux operating system and its operations. The main objective is to develop the understanding of various operating systems and working on them as per requirements, practically.

Unit-I(Introduction to Linux)

(Credits: 2)

Fundamentals: Processes in Linux, I/O system calls, select and poll functions, Filters and redirection, Linux file system navigation, Directory access, File system implementation, Hard links and symbolic links. Asynchronous Events: Manipulating signal masks and signal sets, Catching and ignoring signals, waiting for signals.

Unit-II(Inter-Process Communication)

(Credits: 2)

Inter-Process Communication: Sockets, Remote procedure calls, Network file system. Concurrency: POSIX thread attributes, Synchronization functions, Mutex locks, Condition variables, Signal handling and threads. Character Device Driver Development: Driver concepts, Writing character drivers, Interrupt handling, Interfacing with hardware. Shell Scripting: Loops, Conditional statements, Command line arguments, test command, expr command.

Unit-III(Advanced Scripting Techniques)

(Credits: 2)

Advanced Scripting Techniques: Providing command line options to scripts, exporting variables, Arrays, Remote shell execution, connecting to MySQL using shell, Essential system administration.

Recommended Books & References:

1. W. R. Stevens, S. A. Rago, *Advanced Programming in the UNIX Environment*, (3e), Addison-Wesley, 2013.
2. R. Love, *Linux System Programming: Talking Directly to the Kernel and C Library,* O'Reilly, 2007.
3. S. Das*, Unix Concepts and Applications*, (4e), McGraw Hill, 2006.
4. W. R. Stevens, B. Fenner, *UNIX Network Programming, Volume 1: The Sockets Networking API,* (3e), Pearson, 2003.
5. K. A. Robbins, S. Robbins, *Unix Systems Programming: Communication, Concurrency, and Threads*, (2e), Prentice Hall, 2004.

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COURSE: WIRELESS SENSOR & ADHOC NETWORK

(Credit: 6)

Course Outcome: To develop the understanding of adhoc networks, standards and benefits of using sensors for smart devices used in daily life.

Unit-I(Introduction to ad-hoc networks)

(Credits: 2)

Introduction to ad-hoc networks: Definition, characteristics features, applications. Characteristics of Wireless channel, Ad-hoc Mobility Models: Indoor and outdoor models. MAC Protocols: design issues, goals and classification. Contention based protocols with reservation, scheduling algorithms, protocols using directional antennas.

Unit-II(IEEE standards, protocols and security)

(Credits: 2)

IEEE standards: 802.11a, 802.11b, 802.11g, 802.15. HIPERLAN.Routing Protocols: Design issues, goals and classification.Proactive Vs reactive routing, Unicast routing algorithms, Multicast routing algorithms, hybrid routing algorithm, Energy aware routing algorithm, Hierarchical Routing, QoS aware routing. Transport layer: Issues in designing- Transport layer classification, ad-hoc transport protocols. Security issues in ad-hoc networks: issues and challenges, network security attacks, secure routing protocols. Cross layer Design: Need for cross layer design, cross layer optimization, parameter optimization techniques, Cross layer cautionary perspective. Integration of ad-hoc with Mobile IP networks. Mesh Networks, Vehicular Area Networks, and Mobile Ad Hoc Networks (MANETs).

Unit-III(Introduction to sensor networks and its applications)

(Credits: 2)

Introduction to sensor networks and its applications: Architecture and factors influencing the sensor network design. Routing protocols- data centric routing protocols, hierarchical routing protocols, location based routing, energy efficient routing etc. Node Scheduling and coverage issues, topology control.Querying, data collection and processing.

Recommended Books & References:

1. S. K. Sarkar, T G Basavaraju, C Puttamadappa, *Ad Hoc Mobile Wireless Networks: Principles, Protocols, and Applications,* (2e), CRC Press,2016.
2. C. D. Morais Cordeiro, D. P. Agrawal, *Ad Hoc and Sensor Networks: Theory and Applications,* (2e), World Scientific Publishing, 2011.
3. H. Karl, A. Willing, *Protocols and Architectures for Wireless Sensor Networks,* John Wiley & Sons, 2007.
4. R. Jurdak, *Wireless Ad Hoc and Sensor Networks: A Cross-Layer Design Perspective*, Springer Publications, 2007.
5. S R Murthy, B. S. Manoj, *Ad Hoc Wireless Networks Architectures and Protocols,* Pearson Education, 2008.

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COURSE: MOBILE COMPUTING

(Credit: 6)

Course Outcome: To develop the understanding of wireless communications, telecommunication systems and the working of wireless networks using some security aspects.

Unit-I(Wireless Communication Fundamentals)

(Credits: 2)

Wireless Communication Fundamentals: Introduction wireless transmission, Frequencies for radio transmission, Signals, Antennas, Signal propagation, Multiplexing, Modulations spread spectrum, MAC, SDMA, FDMA, TDMA, CDMA, Cellular wireless networks.

Unit-II(Telecommunications Systems)

Credits: 2)

Telecommunications Systems: GSM, System architecture protocols, Connection establishment, Frequency alocation, Routing, handover, Security, GPRS. Wireless Networks: Wireless LAN-IEEE 802.11 Standards, Architecture, Services HIPERLAN, AdHoc Network, Bluetooth mobile network layer: Mobile IP, Dynamic host configuration protocol.

Unit-III(Routing)

(Credits: 2)

Routing: DSDV, DSR, Alternative metrics, Wireless application protocol. Mobile Ad hoc Networks: Overview, Properties of a MANET, Spectrum of MANET applications, Routing and various routing algorithms, Security in MANET.

Recommended Books & References:
1. W. Stallings, *Wireless Communications and Networks,* (2e)Pearson Education, 2018.
2. J. Schiller, *Mobile Communications,* (2e), *Pearson Education*, 2009.
3. K. Garg, *Mobile Computing: Theory and Practice,* (1e) Pearson Education India, 2010.

COURSE: NATURAL LANGUAGE PROCESSING

(Credit: 6)

Course Outcome: To develop the understanding of various language formats used in computer systems and how these languages processed in the computer systems.

Unit-I(Introduction)

(Credits: 2)

Introduction: Ambiguity and uncertainty in language, processing paradigms, phases in natural language processing. Text representation in computers: encoding schemes. Linguistics resources: Introduction to corpus, elements in balanced corpus, WordNet, VerbNet. Part of Speech tagging: Stochastic POS tagging, HMM, Transformation based tagging (TBL), handling of unknown words, named entities, multi word expressions.

Unit-II(Natural language grammars)

(Credits: 2)

Natural language grammars: lexeme, phonemes, phrases and idioms, word order, agreement, tense, aspect and mood and agreement, context free grammar, spoken language syntax. Parsing- unification, probabilistic parsing, tree-bank. Semantics: meaning representation, semantic analysis, and lexical semantics.

Unit-III(Word Sense Disambiguation)

(Credits: 2)

Word Sense Disambiguation: selection restriction, machine learning approaches, dictionary based approaches. Discourse: Reference resolution, constraints on co-reference, algorithm for pronoun resolution, text coherence, discourse structure. Real time Applications of NLP: text to speech, text summarization, information retrieval, sentiment analysis, machine translation.

Recommended Books & References:
1. D. Jurafsky, J. H. Martin, *Speech and Language Processing*, (2e), Pearson Education, 2009.
2. T. Siddiqui, U. S. Tiwary, *Natural language processing and Information retrieval,* Oxford University Press, 2008.

COURSE: COMPUTER VISION

(Credit: 6)

Course Outcome: To develop the understanding of a computer system which uses various algorithms and methods to enhance images, graphics, and use of neural networks.

Unit-I(Introduction)

(Credits: 2)

Introduction to computer vision and its applications, Geometric Image Features: Differential Geometry, Contour Geometry, analytical image features: Euclidean geometry, Geometric Camera Parameters, Calibration methods, Image formation, Liner Filtering: Linear filters and convolution, shift invariant linear systems, spatial frequency and Fourier transforms,

Unit-II(Image Properties)

(Credits: 2)

Image transformations and Colour models, Edge Detection methods (Laplacian detectors and Canny edge detector), Points and patches, Harris corner detector, Histogram of Gradients, Difference of Gaussian detector, SIFT, Colour and Texture, Feature based alignment, least squares and RANSAC, Camera models, Camera calibration,

Unit-III(Methods and properties)

(Credits: 2)

Stereo vision, Stereo correspondence, Epipolar geometry Optical flow, Lucas Kanade method, KLT tracking method, Mean shift method, Dense motion estimation, Support Vector Machines, Face detection and recognition, Bag of words, Deep convolution neural network.

Recommended Books & References:

1. R. Szeliski, *Computer Vision: Algorithms and Applications*, Springer 2011.
2. D. A. Forsyth, J. Ponce, *Computer Vision: A Modern Approach*, (2e), PHI learning, 2012
3. J. E. Solem, *Programming Computer Vision with Python*, O'Reilly, 2012.

VII SEMESTER

COURSE: INDUSTRIAL TRAINING

In this course the student, undergo in reputed Private / Public Sector / Government organization / companies as industrial training for minimum 45 days to be undergone by the student in the summer vacation of the VI semester.

Outcome of this course:

To expose students to the 'real' working environment and be acquainted with the organization structure, business operations and administrative functions.

To have hands-on experience in the students' related field so that they can relate and reinforce what has been taught at the university.

To promote cooperation and to develop synergetic collaboration between industry and the university in promoting a knowledgeable society & to set the stage for future recruitment by potential employers.

Programme Electives:

COURSE: INFORMATION RETRIEVAL

(Credits: 6)

Course Outcome: To develop the understanding of information retrieval using some terminologies and the concepts behind the search engines.

Unit-I (Introduction to IR)

(Credits: 2)

Introduction to IR: IR Concepts, Boolean Retrievals- An Example Information Retrieval Problem, A First Take at Building an Inverted Index, Processing Boolean Queries. The Term Vocabulary and Postings Lists: Document Delineation and Character Sequence Decoding, Determining the Vocabulary of Terms. Dictionaries and Tolerant Retrieval: Search Structures for Dictionaries, Wildcard Queries, Spelling Correction, Phonetic Correction.

Unit-II (Index Construction and Information retrieval)

(Credits: 2)

Index Construction: Hardware Basics Blocked Sort-Based Indexing. Scoring, Term Weighting and the Vector Space Model: Parametric and Zone Indexes, Term Frequency and Weighting, The Vector Space Model for Scoring. Evaluation in Information Retrieval: Information Retrieval System Evaluation, Standard Test Collections, Evaluation of Unranked Retrieval Sets, Evaluation of Ranked Retrieval Results.

Unit-III (XML and Web search)

(Credits: 2)

XML Retrieval: Basic XML Concepts, Challenges in XML Retrieval, A Vector Space Model for XML Retrieval, Evaluation of XML Retrieval, Text-Centric vs. Data-Centric XML Retrieval. Web Search Basics: Web Characteristics, Advertising as the Economic Model, The Search User Experience, Index Size and Estimation, Near-Duplicates and Shingling. Web Crawling and Indexes: Overview, Crawling, Distributing Indexes, Connectivity Servers. Link Analysis: The Web as a Graph, Page Rank, Hubs and Authorities.

Recommended Books & References:
1. C. Manning, P. Raghavan, H. Schütze, *Introduction to Information Retrieval,* Cambridge University Press, 2009.
2. R. Baeza-Yate, B. Ribeiro-Neto, *Modern Information Retrieval,* (2e), Addison Wesley, 2012.
3. S. Chakrabarti, *Mining the Web: discovering knowledge from hypertext data,* (2e), Morgan Kaufmann, 2002.
4. D. A. Grossman , O. Frieder, *Information Retrieval: Algorithms, and Heuristics, (2e)*, Springer, 2004.

COURSE: COMPUTER GRAPHICS & MULTIMEDIA

(Credit: 6)

Course Outcome: To develop the understanding of computer graphics, algorithms behind the graphics, and how multimedia systems work practically and theoretically both.

Unit-I (Introduction to Computer Graphics)

(Credits: 2)

Basics of Computer Graphics: Pixel, Frame buffer, Application of computer graphics. Graphic Display Devices: Cathode Ray Tube, Light emitting diode, DVST, Random and Raster Scan displays. Scan Conversion: Line Generation using digital differential analyzer (DDA), bresenham's Algorithm, Circle generation algorithm, Ellipse generation algorithm, Polygon generation and filling algorithms.

Unit-II (Transformations of images)

(Credits: 2)

Two Dimensional Transformations: Introduction, homogeneous representation of points, basic transformation like Translation, Rotation, Scaling, Reflection, Shear. Clipping and Windowing: Cohen Sutherland Algorithm, liang Barsky algorithm, Sutherland Hodgman Algorithm. Three dimensional transformation: Translation, Rotation, Scaling and Reflection. Projection: Introduction, Types of projection. Hidden Surface elimination: Depth comparison, Back face detection algorithm, Painter's Algorithm, Z-Buffer Algorithm. Basic Illumination Model: Diffuse reflection, Specular reflection, Phong and Gouraud shading.

Unit-III (Introduction to Multimedia)

(Credits: 2)

Introduction to Multimedia: Concepts and uses, hypertext and hypermedia, image, video and audio standards, text compression algorithm. Animation: types, techniques, key frame animation, utility, morphing.

Recommended Books & References:

1. D. Hearn, M. P. Baker, *Computer Graphics with OpenGL*, (4e), Pearson Education, 2014.
2. R. Steinmetz, K. Nahrstedt, *Multimedia Systems*, Springer, 2004
3. J. F. Hughes, J. D. Foley, *Computer graphics Principles and Practice*,(3e), Pearson Education, 2014.
4. R. Steinmetz, K. Nahrstedt, *Multimedia Fundamentals: Media Coding and Content Processing*, (2e), Pearson Education, 2004

COURSE: USER INTERFACE DESIGN

(Credit: 6)

Course Outcome: To develop the understanding of user interface and its designing principals, models and use cases with real life projects.

Unit-I (UI Design Process)

(Credits: 2)

UI Design Process: Design Process Introduction, Designing to Address a Problem w/o Solution Ideas, Designing for a known solution direction, Designing to iterate on/improve an existing solution, Common Elements: Usability, Engineering and Task-Centered Approaches, Use Cases, Personas, Tasks, and Scenarios, Design-Centered Methods & When They Work Best, Pulling it all Together, Psychology and Human Factors for User Interface Design: Introduction, Fitts' Law, Short- and long-term memory, attention, Perception and visualization, hierarchy, Mistakes, Errors, and Slips, Conceptual models, The Gulf of Execution and the Gulf of Evaluation,

Unit-II (Designing Principals and personas)

(Credits: 2)

Design Principles: Visibility, Feedback, Mappings, Constraints, Interacting beyond individuals (social psychology), High-Level Models: Distributed Cognition, Activity Theory, Situated Action, User Research Methods: User Research to Design, Introduction to User Research, Interview and Focus Groups, Observations, Contextual Inquiry, Ethics and Consent, Design a User Research Protocol, Log Analysis, Surveys and Questionnaires, Analyzing and Delivering User Research: Introduction: Translating User Research to Support Design, Qualitative Analysis, Quantitative Analysis, Personas I: What They Are; How They're Used, Personas II: Walking Through Examples, Use Cases, Tasks and Walkthrough Scenarios, Implications for Design,

Unit-III (Ideation and Idea selection)

(Credits: 2)

Ideation and Idea Selection: rom Research to Ideas, Ideation, Idea Selection, Communicating Ideas to Stakeholders, Good User Interfaces principles: learnability, visibility, error prevention, efficiency, and graphic design) and the human capabilities that motivate them (including perception, motor skills, color vision, attention, and human error), Implementation of UI: building user interfaces, including low-fidelity prototypes, etc Empirical research involving novel user interfaces.

Recommended Books & References:

1.Norman, A. Donald, *The Design of Everyday Things.*MIT Press, 2014.
2.Coursera platform and internet resources

COURSE: DIGITAL IMAGE PROCESSING

(Credit: 6)

Course Outcome: To develop the understanding of image processing, its types and various uses, and the use of image are processing in the authentication.

Unit-I (Introduction to Image Processing)

(Credits: 2)

Introduction to image processing: steps in image processing, Image file formats, Basic relationships between pixels, Colour Models. Image Enhancement and Restoration: Image histogram, Spatial domain enhancement, point operations, Log transformation, Power-law transformation.

Unit-II (Image transformations)

(Credits: 2)

Frequency domain enhancement: introduction to image transforms, Fourier transform, 2D-DFT. Restoration: Noise models, Restoration using inverse filtering and Wiener filtering. Image Coding and Compression: Lossless compression, Lossy compression, JPEG, MPEG.

Unit-III (Image Segmentation and Representation)

(Credits: 2)

Image Segmentation and Representation: Grey level features, edges and lines, similarity, correlation, template matching, edge detection using templates, Representation scheme, boundary descriptors, regional descriptors, Image Morphology. Biometric Authentication, Object Detection.

Recommended Books & References:

1. K. R. Castleman, *Digital Image Processing*, (2e), Pearson Education, 2011.
2. R. C. Gonzalez, R. E. Woods, *Digital Image Processing*, (4e), Pearson Education, 2018.
3. A. K. Jain, *Fundamentals of Digital Image Processing*, Pearson Education, Reprint 2015.
4. S. Jayaraman, S. Esakkirajan, T Veerakumar, *Digital Image Processing*, Tata McGraw Hill Education, 2009.
5. R. C. Gonzalez, R. E. Woods, S. Eddins, *Digital Image Processing using MATLAB*, (2e), Pearson Education.
6. A. McAndrew, *Introduction to Image processing using MATLAB*, Cengage Learning Publisher, 2007.
7. Prateek Joshi, *OpenCV with Python By Example,* (1e) PACKT Publishing, 2018.

COURSE: INTERNET OF THINGS

(Credit: 6)

Course Outcome: To develop the understanding of fundamental concepts of Internet of Things and its applications, working of IoT system and protocols related to it.

Unit-I (Introduction)

(Credits: 2)

Introduction: Analog and digital signals, serial communication, RF and sensors; Introduction to JSON/XML. Programming on Development Boards: Understanding of the board, tool chain and development environment setup; Sensors and Actuators: Understanding and using analog, digital, SPI, UART, I2C.

Unit-II (Nodes and Communications)

(Credits: 2)

Nodes and communication protocols: Understanding usage of nodes and gateways for sensor communication and external communication, RF, Zigbee, BT, WI-FI, GSM.

Unit-III (IoT and Cloud)

(Credits: 2)

IoT Cloud Platform, Cloud using Web Services, Cloud Computing Services for Sensor Management, Python Script; Data Analytics: Mongo DB, Map Reduce, Using cloud APIs for analytics, Visualization, NVD3, Mobile interfacing.

Recommended Books & References:
1. V. Madisetti, A. Bahga, *Internet of Things: A Hands-On- Approach*, VPT, 2014.
2. R. Buyya, A. V. Dastjerdi, *Internet of Things Principles and Paradigms*, 2016.
3. H. Geng, *Internet of Things Principles and Data Analytics Handbook*, Wiley, 2017.
4. P. Raj, A. C. Raman, *The Internet of Things Enabling Technologies, Platforms, and Use Cases*, CRC Press, 2017.

COURSE: BIG DATA ANALYTICS

(Credit: 6)

Course Outcome: To develop the understanding of Big Data and its management, Advanced analytics algorithms, and file systems used to manage the big data.

Unit-I (Introduction to Big Data)   (Credits: 2)

INTRODUCTION: Introduction to big data, definition, need and evolution of BDA, Applications of Big Data. Analysing big data: Sources of big data, Characteristics of Big Data(4 V's), Drivers of BDA, Structured vs. Unstructured data, Data Marts, Differences between traditional DWDM and BDA. Data Processing: Data Wrangling, Data Munging, Data Jujitsu. Data Visualisation: Why to visualize data. Data Analytics Life Cycle.

Unit-II (Advanced Analytics Algorithms)   (Credits: 2)

Advanced Analytics Algorithms: Introduction using R – Theory and Methods Overview: K-means clustering, Association Rules, Linear Regression, Logistic Regression, Naïve Bayesian Classifiers, Decision Trees, Time Series Analysis, Text Analytics; Statistics for Model Building and Evaluation: Statistics in the Analytic Lifecycle, Hypothesis Testing, Difference of means.

Unit-III (HADOOP Framework)   (Credits: 2)

Hadoop Framework: Introduction to Hadoop, HDFS - Hadoop Distributed File system, Map Reduce Programming, Pig. ETL & Batch Processing with Hadoop: ETL & Data Warehousing, Ingesting data into Big Data Platforms using Apache Sqoop & Flume, Big Data Analytics using Apache Hive, NoSQL databases for Big Data Storage Applications (HBase), Workflow management for Hadoop using Oozie Spark: Introduction to Spark, SparkSQL, MLLib: Regression, Clustering & Classification using Spark MLLib.

Recommended Books & References:
1. B. Schmarzo, *Big Data: Understanding How Data Powers Big Business,* Wiley.2013
2. A. Jorgensen, J. Rowland-Jones, J. Welch, *Microsoft Big Data Solutions,* Wiley.,2014
3. J. Thompson, S. P. Rogers, *Analytics: How to Win with Intelligence, Technics, LLC Publications ,* 2017

COURSE: SOFTWARE DEFINED NETWORKS

(Credit: 6)

Course Outcome: To develop the understanding of working of software defined working, programming behind this and network function virtualization.

Unit-I (Software Defined Networking)

(Credits: 2)

Software Defined Networking (SDN): Separation of control plane and data plane, IETF forces, Active networking. Control and Data Plane Separation: Concepts, Advantages and disadvantages, the Open flow protocol.

Unit-II (Control Plane and SDN Programming)

(Credits: 2)

Control Plane: Overview, Existing SDN controllers including floodlight and open daylight projects. Customization of Control Plane: Switching and firewall implementation using SDN concepts. Data Plane: Software-based and Hardware-based, Programmable network, Mininet based examples. Programming SDNs: Northbound application programming interface, current languages and tools, Composition of SDNs.

Unit-III (Network Functions Virtualization)

(Credits: 2)

Network Functions Virtualization (NFV): Concepts, Implementation, Applications. Use Cases of SDNs: Data Centers, Internet exchange points, Backbone networks, Home networks, Traffic engineering. Programming Assignments for implementing some of the theoretical concepts listed above.

Recommended Books & References:
1. T. D. Nadeau, K. Gray, *SDN: Software Defined Networks, An Authoritative Review of Network Programmability Technologies,* (1e) O'Reilly Media, 2013.
2. P. Goransson, C. Black, *Software Defined Networks: A Comprehensive Approach,* (2e) Morgan Kaufmann, 2016.
3. F. Hu, *Network Innovation through Open Flow and SDN: Principles and Design*, CRC Press, 2014.
4. V. Tiwari, *SDN and Open Flow for Beginners, Amazon Digital Services, Inc.,* ASIN, 2013.
5. S Subramanian, *Software Defined Networking with OpenStack,* Packt Publishing, 2016.

COURSE: DEEP NEURAL NETWORK

(Credit: 6)

Course Outcome: To develop the understanding of neural networks using advanced methods in neural networks and the working of the neural networks.

Unit-*I* (Introduction)

Credits: 2)

Introduction of Deep Learning, Basics of Machine Learning, Neural Network, Activation function, Gradient Descent, Stochastic Gradient Descent, backpropagation, Deep Convolution Neural network: convolution operation, ReLU Layer, Pooling Layer, Flattening, fully connected layer, softmax and cross entropy,

Unit-II (Recurrent Neural networks)

(Credits: 2)

Recurrent Neural network: Vanishing Gradient Problem, LSTMs, LSTM variations, Self-organizing Map (SOM), K-means clustering, Boltzmann Machine, Energy-based Models, Contrastive Divergence,

Unit-III (Deep Belief Networks)

(Credits: 2)

Deep Belief Networks, auto encoders, training of auto encode, over complete hidden layers, sparse auto encoders, denoising auto encoders, contractive auto encoders, stacked auto encoders, deep auto encoders.

Recommended Books & References:
1. I. Goodfellow, Y. Bengio , A. Courville, *Deep Learning*,   MIT Press 2016.
2. S. Haykin, *Neural Networks and Learning Machines*, (3e), PHI, 2008.

COURSE: SOCIAL NETWORK ANALYSIS

(Credit: 6)

Course Outcome: To develop the understanding of social web and working of different models used in the social network analysis.

Unit-I (Introduction to Social Web)

(Credits: 2)

Introduction to Social Web: Nodes, Edges and Network measures, Describing Nodes and Edges, Describing Networks, Layouts. Visualizing Network features: The role of Tie Strength, Measuring Tie Strength, Tie Strength and Network Structure, Tie Strength and Network Propagation, Link Prediction, Entity Resolution. Link Prediction: Case Study Friend recommendation. *Unit-II (Communities)*

(Credits: 2.5)

Communities: Introduction, Communities in Context, Quality Functions. Algorithms: Clustering-based, Newman and Girvan- Divisive clustering, Newman-Modularity maximization, Clauset-Greedy optimization of modularity, Louvain Method-Hierarchical clustering, Agglomerative clustering, Falkowski (DENGRAPH)-Density-based clustering, Nikolaev-Entropy centrality-based clustering, Clique-based Methods for Overlapping Community Detection, Palla-Clique percolation method, Lancichinetti-Fitness function, Du-Kernels-based clustering, Shen-Agglomerative hierarchical clustering, Evans-Line graph, clique graph, Label Propagation-based Community Detection.

Unit-III (Introduction to social influence)

(Credits: 1.5)

Introduction to Social Influence: Influence Related Statistics, Social Similarity and Influence, Homophile, Existential Test for Social Influence, Influence and Actions, Influence and Interaction, Influence Maximization in Viral Marketing.

Recommended Books & References:

1. J. Goldbeck, *Analyzing the Social Web*,   Morgan Kaufmann Publications, 2013.
2. C. C. Aggarwal, *Social Network Data Analytics*,   Springer Publications, 2011.
3. J. Scott, *Social Network Analysis*, (3e), SAGE Publications Limited, 2013.
4. J. Goldman, *Facebook Cookbook*,   O'Reilly, 2009.
5. S. Kumar, F. Morstatter, H. Liu, *Twitter Data Analytics*,   Springer Publications, 2013.