DEVI AHILYA VISHWAVIDYALAYA, INDORE

International Institute of Professional Studies

1.1.1
Syllabus of all programs

DEVI AHILYA VISHWAVIDYALAYA, INDORE

(Formerly University of Indore) , NAAC "A" Grade

State University of Madhya Pradesh, India

International Institute of Professional Studies

IIPS
DAVV
International Institute
of Professional Studies

Syllabus
Of
Bachelor of Commerce (Hons.)
(3YDC)

Academic Session : 2018-21

THE DIRECTOR DESK

Dear Scholar,

Welcome to one of the most prestigious, academic institution in central India offering professional education in Management, Computer Science and Commerce Streams. It has state of art infrastructure, pool of multi discipline faculty and devoted staff that creates a conducive environment for academic excellence and holistic development of yours, paving the way for your bright career prospects. Team IIPS looks forward to contribute towards your successful future life.

Team IIPS-MANAGEMENT

Dr. Anand K. Sapre, Professor, Director Ph D,MBA	**Dr. B.K. Tripathi, Professor** Ph.D (Mgt), MBA(HR), Ph.D (Chem), M.Sc (Chem)	**Dr. Yamini Karmarkar, Reader,** Ph D, FDP-IIMA, MMS
Dr. Geeta Sharma, Reader **Ph D , MBA (Finance), PGDPM&IR**	**Dr. GeetaNema, Reader** Ph D , MBA	**Dr. Jyoti Sharma, Reader** Ph.D., MBA (HR), M.A.(Psy), PGDCABM
CS. Dr. Manish Sitlani, Reader Ph D , ACS, MBA, M Com , LLB (Hons),UGC NET	**Dr. Preeti Singh, Reader** Ph.D.,MBA, B.Ed(DE)	**Dr. Suresh C. Patidar, Reader,** Ph D, MBA, M.Com, CS Inter, UGCNET, LLB(Hons)
Dr. Ravindra Yadav, Sr Lecturer Ph D , FDP-IIMA,MBA, DEE	**Dr. Manminder S. Saluja, Sr Lecturer** Ph D (Economics), M Phil, MA	**Dr. Anshu Bhati, Sr Lecturer** PhD, MBA(APR)
Dr. Pooja Jain, Sr Lecturer PhD, MBA(APR)	**Dr. Sujata Parwani, Sr Lecturer** Ph.D. (Economics) , M.A., M.Phil	**Dr. Kapil Jain, Sr. Lecturer** PhD(Mgt), MBA(Fin), M Phil., M Com.
Dr Surendra Malviya, Lecturer Ph D, MBA (E Com)	**Dr Muskan Karamchandani, Lecturer,** PhD, MBA (MS)	**Dr. Gaurav Purohit, Lecturer** Ph D , MBA (Tourism)
Dr. Nirmala Sawan, Lecturer M Sc, Ph D (Statistics)	**Dr. Shilpa Bagdare, Lecturer** PhD, MBA(Mktg)	**Dr.Navneet Kaur Bhatia,Lecturer** Ph D, MBA (Finance)
Dr. Prerna Kumar, Lecturer, PhD, MBA(Mktg)	**Mr. Naresh Dembla, Lecturer** ME (Comp Sc Engg), MBA, BE	**Dr Shikha Pandey, Lecturer** Ph D, MBA(Tourism)
Dr. Jyoti Jain, Lecturer Ph.D., MBA, MA	**Dr. Neha Chouhan, Lecturer** PhD, MBA	**Mr Ravi Bunkar, Lecturer** MBA (Mktg)
Ms. Monalisa Khatre, Lecturer MBA (Mktg)		

MrYogendra Singh Bawal, Network Administrator Incharge, Administrative Officer M Sc(CS), M Sc. (Elex & Comm.), CCNA	**Dr Suresh Patidar,** Incharge, Placement Officer Ph D, MBA, M.Com, CS Inter, UGCNET, LLB(Hons.)
Dr. Kapil Jain, Ph.D.(Mgt),MBA(Fin), M Phil, M Com. Program Officer, National Service Scheme (NSS) Coordinator, Red Ribbon Club, MPSACS Warden, JN Boy's Hostel	**Dr. Sujata Parwani**, Ph.D. (Economics), M.A., M.Phil, Program Officer, National Service Scheme (NSS)

DAVV at a Glance

There are twenty seven teaching departments offering undergraduate, post-graduate and research programs in sixteen Faculties. It is amongst the first few Universities in the country to introduce innovative and integrated courses in the area of science, engineering, technology, management, law and media. The university has 270 affiliated colleges in addition to University teaching departments and centers. The University provides and nurtures research environment for promoting high quality original research. It offers Ph.D. and M. Phil. Programs in all the subjects**.**

The Hon'ble Governor of the State is the Chancellor of the University. The University functions as per Act, Statutes, Ordinances and Regulations. The Registrar, Examination Controller and Finance Controller of the University assist the Vice Chancellor in administrative, examination and financial matters. The University has duly constituted bodies - Executive Council, Academic Council, Boards of Studies, Finance and other committees for decisions on major academic, administrative and financial matters.

The University is prepared to embrace future challenges, explore new horizons and keep moving ahead on the path of excellence, innovation and enlightenment.

About IIPS

International Institute of Professional Studies (IIPS), a pioneer institute under Devi AhilyaVishwavidyalaya DAVV was established in 1991 to provide a new dimension to professional education. It has emerged as one of the best management schools of Central India. The Institute is located in the sprawling Takshashila campus of the University surrounded by lush green environment. The Institute offers following courses

1. Master of Business Administration (Management Science) (2YDC)
2. Master of Business Administration (Management Science) (5YDC) Integrated Programme
3. Master of Business Administration (Advertisement and Public Relations) (2YDC)
4. Master of Business Administration (Tourism Administration) (5YDC) Integrated programme
5. Bachelor of Commerce (Hons.) (3YDC)
6. Master of Business Administration (Entrepreneurship) (2YDC)
7. Master of Business Administration (Tourism Administration) (2YDC)
8. Master of Computer Application (6YDC) Integrated Programme
9. Master of Technology (Information Technology) (5YDC) Integrated Programme
10. Doctor of Philosophy (PhD) in Management
11. Doctor of Philosophy (PhD) in Computer Science

The lush green campus of the IIPS Includes an academic complex of classrooms, seminar room, an auditorium, a well-equipped library, computer labs and development center and administrative offices. The classrooms are specious and well equipped.

IIPS has one of the finest computing environments among the management Institutions in Central India. The institute provides internet facility through Wi-Fi to the students in campus.

Name of the Programme: B.Com.(Hons.)

Programme Specific Outcomes

PSO1: Develop an understanding of commerce and apply the skills and knowledge in a business organization
PSO2: Equip the graduates with the know-how of operating successfully in a continuously changing business environment
PSO3: Equip graduates with the skills required to lead management position
PSO4: Make informed and ethical decisions based on thorough knowledge of commerce concepts.
PSO5: Develop an ability to effectively communicate both orally and verbally
PSO6: Appreciate importance of working independently and in a team
PSO7: Have exposure of complex commerce problems and find their solution
PSO8: Process information by effective use of IT tools
PSO9: Understand required mathematical, analytical and statistical tools for financial and accounting analysis
PSO10: Develop an understanding of various commerce functions such as finance, accounting, Financial analysis, project evaluation, and cost accounting
PSO11: Develop self-confidence and awareness of general issues prevailing in the society

Course curriculum Scheme For Undergraduate Course B. Com. (Hons.)

Semester I

Code	Subject	Credits
IB-101	**Financial Accounting –I**	**4**
IB-102	**Business Mathametics**	**4**
IB-103A	**Business Communication and Personality Development**	**4**
IB-105	**Micro Economics**	**4**
IB-105A	**Principles and Practices of Management**	**4**
IB-107	**Computer Fundamental**	**4**
	Comprehensive Viva-Voce	**4**
	Lab Viva	**1**

Semester -II

Code No.	Subject	Credits
IB-201	**Financial Accounting-II**	**4**
IB-202	**Business Statistics**	**4**
IB-203	**Business Law**	**4**
IB-203C	**Hindi**	**4**
IB-205C	**Organisational Behavior**	**4**
IB-206A	**Programming with C++**	**4**
	Comprehensive Viva-Voce	**4**
	Lab Viva	**1**

Semester- III

CODE	SUBJECT	Credits
IB-301A	Corporate Accounting	4
IB-302	Cost Accounting	
IB-304A	Marketing Management	4
IB-310A	RDBMS	4
IB-311	Indirect Taxes	4
IB-312	Operations Research	4
	Comprehensive Viva-Voce	4
	Lab Viva	1

Semester -IV

Code No.	Subject	Credits
IB-401	Income Tax	4
IB-403	Management Accounting	4
IB-404	Company Law	4
IB- 408	Entrepreneurship	4
IB-411	Accounting Information System and Packages	4
IB-412	Human Resource Management	4
	Comprehensive Viva-Voce	4
	Lab Viva	1

Semester- V

Code no.	Subjects	Credits
IB501A	Advanced Accounting	4
IB502A	Indian Financial System	4
IB503A	Secretarial Practice	4
IB504A	E-Business	4
IB505	Banking and Insurance	4
IB510	Macro Economics	4
	Comprehensive Viva-Voce	4
	Lab Viva	1

Semester -VI

Code No.	Subject	Credits
IB-601A	Corporate Tax Planning	4
IB-602	Auditing	4
IB-603A	Public Finance And Treasury	4
IB-605	Financial Management	4
B- 610	International Business	4
IB-611	Management Information System	4
	Comprehensive Viva-Voce	4
	Lab Viva	1

IB-101

Financial Accounting –I

Course Outcomes:

CO1: Students acquaint with concepts of accounting and help them to acquire the ability to develop and use the accounting and system as an aid to decision making.

CO2: Students about the meaning of basic accounting terms, principles and standards related to accounting, business management and finance.

CO3: Students are able to read, understand, write and interpret the double entry book keeping system and are able to prepare their final accounts.

CO4: Students are familiar with different types of Branch and consignment accounts.

CO5: Students are able to learn the accounting for depreciation and accounting for non-profit organization

Course contents:

1. **Fundamentals of financial accounting:** Concept and definition of accounting: its need and functions , users , importance and limitations. Branches of accounting , relationship of accounting with other disciplines, Accounting Principles- Concepts and Conventions, An introduction to Accounting Standards and US GAAPs
2. **Double entry system of accounting:** Concept and definition, Process of Accounting, various stages of DES accounting: Journal (including subsidiary books), Ledger, Trial Balance, Preparation of Final Accounts, Adjustments in Final A/cs., Preparation of Final a/cs. With adjustments. Concept and types of errors, rectification of errors, Impact of Errors and their rectification on Final A/cs. An introduction to Bank reconciliation statement and numerical.
3. **Accounting for depreciation:** Concept and definition, Causes/need and objectives of providing depreciation, Basic factors in considering depreciation, Fixed Installments and reducing balance methods of charging depreciation and their merits and demerits .Numerical problems.
4. **Consignment accounts:** Concept and important terms, Sale v/s. Consignment, Types of Commissions Payable, Valuation of Unsold Stock, important records in the books of Consignor and Consignee.
5. **Hire purchase and instaliment purchase system:** Concept and Definitions, Distinction between Hire Purchase and Installment System, Calculation of Interest and Cash Price, Journal Entries and various accounts on the books of Hire Purchaser and Hire Vendor, Various other issues related to hire purchase and installment purchase system.
6. **Branch accounts:** Concept and types of Branches, distinction between branch and department, Accounting in Books of Head Office, Accounting in Books of various types of Branches (including independent and Foreign Branches)
7. **Accounting for Nonprofit organization .**

BOOKS:

Financial Accounts by Dr. Ramesh Mangal, Universal Publication

Financial Accounts by S.M. Shukla, Sahitya Bhawan Publication

An Introduction to Accountancy by Maheshwari and Maheshwari (Vikas Publication)

Advanced Accounts volume I by Shukla Grewal and Gupta (S. Chand Publication)

IB 102
Business Mathematics

Course Outcomes:

CO1:Understand the basic mathematical tools with emphasis on applications to business and economic situations.
CO2:Concept of derivative, Rules of differentiation, Derivative and its application
CO3:Fundamental formulae of Integration, Rules of Integration, Integration by Substitution, Parts and Partial fraction, Definite Integral, Applications

Course contents:

1. **Theory of Equation**
   Introduction, Degree of an equation, Solution of an equation, Linear equation in two variables and its application, Quadratic equation, Solution of a quadratic equation and its application, Linear simultaneous equations, Quadratic simultaneous equations
2. **Matrix**
   Introduction, types, addition, subtraction and multiplication of matrices, Transpose, Determinants, Adjoint, Inverse
3. **Arithmetic and Geometric Progression**
   Introduction, Arithmetic progression, Arithmetic mean, Geometric progression, Geometric mean
4. **Functions , Limits and Continuity**
   Introduction, Concept of function, Types, Roots of function, Break-Even-Analysis
   Introduction, Limit of a variable, limit of a function, Limit of a sequence, Limit and value of a function, Methods of evaluation of limits, Continuity
5. **Differentiation**
   Introduction, Concept of slope and rate of change, Concept of derivative, Rules of differentiation, Derivative and its application
6. **Maxima and Minima and Integral Calculus**
   Sign and magnitude of derivative, Maximum and Minimum values, Applications
   Introduction, Indefinite Integral, Fundamental formulae of Integration, Rules of Integration, Integration by Substitution, Parts and Partial fraction, Definite Integral, Applications
7. **Mathematics for Finance**
   Introduction, Simple and Compound Interest, Depreciation, Present Value of Annuity, Commission , Discount and Profit and loss.

Suggested Books:

Business Mathematics: R.P. Gupta

Business Mathematics: Dr. Ramesh Mangal & Singhai

Mathematics for Management: M. Raghavachari

Business Calculus: Joglekar and Dubey, Quantitative Aptitude: R.S. Agrawal

IB 103 A
Business Communication & Personality Development

Course Outcomes

C01: Nurture students into well balanced and positive thinking human beings. Developing students into professionals, who are capable of facing new challenges and becoming the winners in Life.
CO2: Enhancing Communication skills by practicing functions, processes and models.
CO3: Understanding of Effective Communication, Barriers to Effective Communication, order, advice, suggestions, motivation, persuasion, warning, education, raising morale, conflicts and negotiation, group decision making.
CO4: Practicing of various activities using dimensions of Communication- Upward, Downward, Lateral/Horizontal, Diagonal, grapevine, consensus , Channels of Communication- Formal, Informal; Patterns of Communication; Media of Communication-Verbal, Nonverbal.
CO5: Understanding and practicing complete knowhow of Business Correspondence its Layout, Public Speaking, Interviews etc.
CO6: Understanding and practicing Self Improvement, Developing positive attitudes, Self Motivation, Time Management, Stress management, Modern Manners for developed personalities.

Course contents :

Unit 1:

Theory- Communication: meaning, definitions, models, functions, Objectives of effective communication
Dimensions of communication: upward, downward, lateral/horizontal, grapevine
Barriers to effective communication.
Practical-Oral/spoken communication skill & testing - voice and accent, voice clarity, voice modulation & intonation, word stress, etc.
Feedback & questioning technique: Objectiveness in argument (Both one on one and in groups).
5Ws & 1H & 7Cs for effective Communication, Development Etiquette and manners
Study of different pictorial expression of non-verbal communication and its analysis.

Unit 2:

Theory - Components of Effective Communication - Conviction, confidence & enthusiasm, Listening ,Communication Process & Handling them
Barriers to Communication, Listening-It's Importance, Good & Bad Listening
Practical- Non-Verbal Communication-its Importance and Nuances :- Facial Expression, Posture, Gesture, eye contact, Appearance (Dress Code).

Unit 3:

Theory-Channels of communication: formal, informal, Types of communication: verbal, nonverbal, Written communication: letter writing, report writing
e-mail and mobile phone etiquettes
Public speaking, making effective presentationsPreparing for interviews
Listening
Practical-

Presentation skill practice
Preparing in presentation

Delivery of presentation:-
Plan your presentation/communication
 Select proper channel/medium
 Set ease your environment
 Tell it right with 7 Cs
 Encode/decode
 Follow up your communication
 Ensure action

Concept of 4 step method for presentation
Preparation & introduction,
Presentation
Evaluation/feedback
Summarization / conclusion

Unit 4:

Theory-Interpersonal communication: Johari Window, Transactional analysis

Practise-Self Management
Self Evaluation,
Self discipline,
Self criticism
Recognition of one's own limits and deficiencies,
Independency etc.
Thoughtful & Responsible
Self Awareness

Unit 5:

Theory- Personality: meaning, definitions, aspects, Types of personalities, Having an effective personality. Team Building
Practical-Team building / Coordinating skills
Team building practices through group exercises, team task /Role play.
Ability to – Mixing & accommodation
Ability to work together

Unit-6

Theory- Grooming through Corporate Training-
Tele- *Etiquette,*
Receiving calls
Transferring calls
Taking Message/Voice mails
Practical- Trainings on Business *Etiquette, Time Mgmt, Conflict Mgmt ETC.*

Note: Classroom activities and exercises would be conducted and assignments would be given as per the session requirements. The assignments would be graded as a part of the internal assessment.

Books

1. Business Communication Today by Courtland L. Bovee, John V. Thill, Barbara E. Schatzman, Hardcover: 730 pages, Publisher: Prentice Hall

2. Excellence In Business Communication (6th Edition) by John Thill, Courtland L. Bovee, Paperback: 656 pages, Publisher: Prentice Hall

3. Essentials of Business Communication with Student CD-ROM by Mary Ellen Guffey, Paperback: 511 pages, Publisher: South-Western Educational

4. Business Communication: Building Critical Skills by Kitty O. Locker, Stephen Kyo Kaczmarek, Hardcover: 637 pages, Publisher: Irwin/McGraw-Hill

5. Business Communication for Managers : An Advanced Approach by John M. Penrose, Robert W. Rasberry, Robert J. Myers, Hardcover: 480 pages, Publisher: South-Western College

6. Guide to Managerial Communication (6th Edition) by Mary Munter, Paperback: 198 pages, Publisher: Prentice Hall

7. Communicating for Managerial Effectiveness by Phillip G. Clampitt, Paperback: 304 pages, Publisher: SAGE Publications

IB-105
Micro Economics

Course Outcomes: on completion of the course the students are able to :

CO1: Understand the meaning, scope and importance of Micro Economics in business firms.

CO2: Develop an integrated view of laws of demand and Supply and to calculate the market equilibrium price.

CO3: Familiar with the laws of diminishing marginal utility, law of constant and increasing returns.

CO4: Know about the small and large scale production behavior of the firms and equilibrium of firm and industry.

CO5: Familiar with different types of costs in the short and long run.

CO6: Know about the utilities of different types theories like rent theory, theory of interest, theory of Wages, theory of profits.

Course contents :

1. **Economics Basics:** Meaning , Definition , Scope, Types, Importance, and Limitation of Micro Economics.
2. **Demand Analysis:** Law of Demand and law of supply, Elasticity of Demand, Utility Analysis, Law of Diminishing marginal Utility, Consumer Surplus. Indifference curve and revealed preference theory..
3. **Production Analysis :** Small Scale of Production and Large Scale of Production: Advantages , disadvantages and problems Law of Return: Law of Diminishing Return, Law of Constant Return, Law of Increasing returns : classical and modern views
4. **Cost Analysis :** Types of Cost, Short run Cost and Long run Cost Analysis
5. **Production Pricing :** Equilibrium of the firm and industry
6. **Market and their Classification:** Perfect Competition , Imperfect Competition and Monopoly : price determination under these markets.
7. **Theory of distribution:** Theory of Rent : Recordian and Modern Theory of Rent, Theory of Interest : Classical and Modern Theory of Interest, Theory of Wages: , Theory of Profit : Schumpeter's Theory and Knight Theory of profit: IS – LM Curve Model and Marginal Productivity Theory of Profit.

Text Books:

Principals of Micro Economics: Dr. H. L. Ahuja

Micro Economics theory and Application : D.N. Dwivedi

Micro Economics : Robert S. Pindyck and Prem L. Mehta

Micro Economics: P.N. Chopra

Business Economics : M. Adhikary

Business Economics: Dr. Mangal , Dr. Tanna

IB-105A

Principles and Practices of Management

Course Outcomes

CO1: Gain understanding of the functions and responsibilities of the manager, provide them tools and techniques to be used in the performance of managerial job, and enable them to analyze and understand the environment of the organization.

CO2: Understand Management Basics, Functions and Principles . Managerial roles , skills and nature of managerial work .

CO3: Usage of Planning, MBO, Decision Making, Organising, Line and Staff, Directing.

C04: Understanding Motivation with its application in organization.

CO5: Usage and conceptual application of co importance of Communication, Process of Communication, Channels of Communication, Barriers to Communication, Effective Communication.

Course contents :

1. **Management Basics:** Concept of Management,Functions of Management,Principles of Management , Evolution of Management (Approaches to Management),Kinds of managers , Basic managerial roles , skills and nature of managerial work .
2. **Planning :** Concept and Nature of Planning ,Types of Planning, Planning Process, Implementation of Plans, Advantages and limitations of Planning.
3. **MBO :** Concept and Nature of Objectives, Management by Objectives, Benefits and weaknesses of MBO.
4. **Decision making :** Types of Decision making, Decision making process.
5. **Organizing :** Nature of Organizing, Organization structure, The Span of Management and Level of Authority, Departmentation Line and Staff Relationship
6. **Directing :** Nature and Purpose of Directing, Motivation theories- McGregor's, Maslow's, Herzberg's, Job Enrichment and Job Enlargement ,Meaning and importance of Communication, Process of Communication, Channels of Communication,Barriers to Communication,Effective Communication.
7. **Control :** Nature and process of Control, Principles or Requirements of Good Control System, Techniques of Control.

Text Readings :

1. Harold Koontz, O'Donnell and Heinz Weihrich , " Essentials of Management", New Delhi, Tata McGraw Hill,1992.
2. R.D.Agrawal," Organization and Management", New Delhi, Tata McGraw Hill,1995.

3.Hellriegel/ Jackson/Slocum," Management: A competency based approach", Thomson South western, 9th Edn.

4.Harold Koontz, Heinz Weihrich,"Management: A Global Perspective", McGraw Hill, 10th Edn.,1994.

IB-107
Computer Fundamental

Course Outcomes:

CO-1: Demonstrate knowledge of generation of computer and input output devices with the block diagram of computer.
CO-2: Understanding the types of memories and operating system.
CO-3: Understanding the function of MS-Word by using different functions.
CO-4: Performing working with MS-Excel.
CO-5: Working with MS-PowerPoint including multimedia, graphics and special effect.
CO-6: Demonstrate knowledge of internet and service used in internet.

Course contents :

1. **Introduction to Computer:** Definition, characteristics, components, function and application. Classification of computer,History of computer, Von Neumann Model ,Introduction, black diagram I/O interface
2. **Number System:** Decimal conversion, binary conversion octal conversion Hexadecimal conversion
3. **Software and Memory system :** Types of memory, Input /output devices, System software, Application software
4. **Computer languages :** Introduction Machine language, Assembly language, High level language, Advantages disadvantages
5. **Operating system :** Introduction, types of O.S., MS dos introduction, commands (internal & external), file management, booting process
6. **Ms office:** Introduction, MS word: - Introduction, typing, editing, formatting, Etc
7. **Ms Excel:** Ms excel : - Introduction, working, formatting, calculation of worksheet, pivot table
8. **Ms power point:** - introduction, working process.
9. **Internet and Networking :** Introduction, types: - LAN, WAN, MAN. Network architecture. Internet, Protocol, intranet, WWW, Extra net, user interface, flow chart, multimedia, multiprocessing, Batch processing, system approach, time sharing.

Text references: -

P.K. Sinha – Computer basics.
R.K. Taxali – MS office package.
B.Ram – Computer fundamentals.
Stephon l. nelson – Complete reference office. Computer today.

IB-201
Financial Accounting-II

Course Outcomes:

CO1: Students are able to learn the accounting of partnership concerns and partnership organizations.
CO2: Students are able to understand partnership deeds, profit and loss sharing ratio.
CO3: Students are familiar with the rights and dissolution of partnership firms, Insolvency conditions.
CO4: Students are able to calculate the goodwill of the firm and know about the amalgamation of different partnership firms.

Course contents :

1. **Partnership Accounts –Fundamentals**

Meaning of Partnership, Essential characteristics, partnership deed- It's contents, Fixed and Fluctuating Capitals, Final accounts, Adjustments after closing accounts, Guarantee of Profit, Joint Life Policy & Change in profit sharing ratio.

2. Partnership Accounts- Admission

Adjustments regarding Future Profit Sharing Ratio, Calculation of new and sacrificing ratio, Revaluation of Assets & Liabilities, Calculation of goodwill and its treatment, Treatment of accumulated profits & losses, Preparation of various accounts etc after Admission.

3. Partnership Accounts- Retirement & Death

Adjustments regarding Future Profit Sharing Ratio, Calculation of new and gaining ratio, Revaluation of Assets & Liabilities, Calculation of goodwill & its treatment, Treatment of accumulated profits & losses, Preparation of various accounts etc after retirement payment of retired partner's share

Ascertainment of Share of deceased partner's interest, Calculation of share of profit of Deceased partner, Concept of joint life policy & its Accounting treatment, Mode of Payment of Deceased partner's share.

4. Partnership Accounts- Dissolution

Dissolution of partnership firm: Meaning & Types, Rights & Obligations of partners after Dissolution, Accounting entries & Preparation of various accounts Insolvency of partner, Rule of GARNER V/S MURRAY, Applicability of this rule in Indian Context Insolvency of all partners, piece meal distribution- Proportionate capital method Maximum loss Method.

5. Partnership Accounts- Amalgamation & Conversion:

Amalgamation of partnership firms- Calculation of Goodwill, Accounting Record in the books of old firm, accounting record in the books of new firm, revaluation of assets & liabilities, Preparation of various accounts. Advance Concepts in Partnership.

6. CONVERSION OF A PARTERSHIP FIRM INTO JOINT STOCK COMPANY, LEGAL PROVISIONS & ACCOUNTING TREATMENT

REFERENCES BOOK:

01 **Financial Accounting by Dr. Ramesh Mangal**
02 Financial Accounting by S.M. SHUKLA
03 Financial Accounting by S.N. MAHESHWARI
04 Financial Accounting by GUPTA & RADHASWAMY

IB-202
Business Statistics

Course Outcomes:

CO1: Understand the statistical techniques and their application to business problems.
CO2: Understand the role of descriptive statistics in summarization, description and interpretation of the data.
CO3: Provide the importance of the concept of dispersion.
CO4: Express quantitatively the degree and direction of the covariation or association between two variables.
CO5:Fitting of a Regression Line and Interpretation of Results
CO6:Applying the concept of probability distribution to real-life problems.

Course contents :

1. **Descriptive Statistics: Statistical Terms & Concepts:**
   Introduction, Characteristics of Statistics, Functions of Statistics Limitations of Statistics, Statistics in Business & Management Data, Variable, A Random Variable, Population-Sample Random Number table, Descriptive Statistics, Inferential Statistics
2. **Data Collection Data Presentation and Tabulation**
   Primary Data, Secondary Data, Data Gathering Sample Selection, Types of Sampling Methods Frequency distribution, Constructing a frequency distribution, Cumulative Frequency distribution, Graphic Presentation, Diagrammatic Presentation
3. **Measures of Central Tendencies**
   Measure of central location (central tendency), Mean, Characteristics of Mean, Mode, Median,
4. **Dispersion**
   Measure of Dispersion (ungrouped data), Co-efficient of variation, Skew ness, Moments and Kurtosis. Standard and mean Deviation, Standard error of Mean
5. **Probability Theory & Probability Distribution**
   Some basic concepts of probability, Rules of probability, The mean and variance of a probability distribution, Variance, Binomial Distribution, Normal Distribution, Poisson Distribution, Construction of the curve
6. **Correlation Analysis**
   Types of Correlation and coefficient of determination
7. **Regression Analysis**
   The linear regression and its application.

REFERENCE BOOKS:

1. Business Statistics – S.C GUPTA
2. Business Statistics – G.C BERI

IB-203
Business Law

Course Outcomes:

CO1: The learners/Students would gather the knowledge about the applicability of Law to Individual, business.
CO2: Gain command over basic fundamental principles of Contract.
CO3: They will more vigilant towards the laws in banking, SEBI and other legal matters.
CO4: More developed approach towards various kinds of business forms.
CO5: Enhancement in problem solving approach towards litigations.

Course Contents

1. The Indian Contract Act, 1872

General principles of contract, classification of contract and key terms Essential elements of a valid contract viz., offer & acceptance competence of contracting parties, free consent, consideration, legality of object and consideration, void agreements Performance of contracts, discharge of contract, breach of contract remedies for breach of contract Specific contracts viz, contingent contracts, quasi-contracts, contracts of indemnity and guarantee, contract of bailment, contract of agency.

2. The Indian Partnership Act 1932

General Principles- Meaning of partnership, essential features of partnership, types of partners Formation of Partnership-Partnership deed, registration of partnership firms, position of a minor partner, duration partnership firm, rights of outgoing partner Rights and Liabilities of Partners- Relations of partner with each other, rights of partner, duties of partners, relation of partner with third parties Dissolution of Partnership Firms- Dissolution of partnership and dissolution of firm modes of dissolution of firm consequences of dissolution, rules for settlement of accounts after dissolution

3. The Negotiable Instruments Act, 1881

General Principles- Meaning of negotiable instrument, types of negotiable instruments, ambiguous instruments, maturity of negotiable instrument, payments of negotiable instruments Parties to Negotiable Instruments- Parties to various negotiable instruments, holder and holder in due course, competence of parties to negotiable instruments, liabilities of parties to negotiable instruments Presentation, Negotiation and Discharge of Parties- Presentation of various instruments, meaning of negotiation and assignment, modes of negotiation, negotiation of various types of instruments, endorsements, meaning of discharge of parties, modes of discharge, dishonor

4. The Sale of Goods Act, 1930

Introduction-Definition and essentials of a contract of sale
Goods and their classification
Meaning of price
Puffs, representation and terms
Passing of property in goods

Transfer of title by non-owners
Performance of a contract of sale of goods
Unpaid seller and his rights
Remedies for breach of contract
Sale by auction

5. Foreign Exchange Management Act, 1999

General Principles- Meaning & definition of various important provisions
Regulation & Management of Foreign Exchange- Current account transaction, capital account transaction Provisions related to authorized person, Reserve Bank's power to issue directions to authorized person Contravention & penalties
Adjudication & appeal

6. The Consumer Protection Act, 1986

General Principles- Meaning & definition of various important terms
Rights of Consumers
Nature & scope of remedies available to consumers

An overview of following business related legislation

The Industries (Development & Regulation) Act, 1951, The LLP, Act, 2008, The Competition Act, 2002, The Information Technology Act, 2000, Environmental Laws, Laws relating to Intellectual Property, Provisions relating to patent, copyright and trademarks.

Recommended Books

Elements of Mercantile Law: N.D. Kapoor
Mercantile Law: S.S. Gulshan
Study Materials of ICSI & ICAI
Business Law: S.K. Agrawal
Legal Aspects of Business : Akhileshwar Pathak

Foundation II Code - IB203B

fgUnh

Course Outcomes:

CO1: know the importance of HINDI language in personal and business communication.
CO2: familiar with the standards, grammer and vocabulary of hindi language and their importance in the verbal and written communication.
CO3: Understand the importance of words and sentence formation in hindi language w.r.t business letters, familiar with the hindi working trend and working culture in government and public enterprises Communications
CO4: Know about the summary and preparations of hindi documents and orders, familiar with the Indian Hindi culture and history, social and regional hindi culture of the madhya Pradesh.

Course Contents

fooj.k
fgUnh Hkk"kk dk ifjp; ekud fgUnh Hkk"kk y{k.k izdkj mnkgj.k
Ekkud fgUnh Hkk"kk 'kSfy;k
v'kqf) mudk la'kks/ku 1- vfHkizk; 2- foHkktu 3- mPPkkj.k
1- mPpkj.kxr 2- orZuhxr 3- 'kCn ,oa 'kCnkFkZxr 4- O;kdj.kxr 5- vU;
fgUnh 'kCn HkaMkj 1- ifjp; 2- oxhZdj.k
'kCnks dh jpuk jpuk ikfjHkkf"kd ''kCn
fgUnh okD; jpuk 1- okD;ksa ds izdkj 2- okD; foU;kl 3- v'kqf);ka
1- fojke fpUg 2- okD; 3- indze
i= ys[ku 1- ifjp; 2- oxhZdj.k 3- dk;kZy;hu i= vkSj vkys[k 4- ifji=]vkns'k]vf/klwpuk Kkiu vuqLekjd l`k"Bkadu 5- izfrosnu

1- lkj ys[ku 2- iYyou
Hkkjrh; laLd`fr 1- Hkkjr ns’k vkSj mlds fuoklh 2- Lkekt dh lajpuk
Hkkjrh; laLd`fr 1- lkekftd xfr’khyrk 2- /keZ ,ao n’kZu
Hkkjrh; laLd`fr dk fo’o ij izHkko
Ek/; izns’k dk lkaLd`frd oSHko
1- izkphu 2- dyk,sa 3- /kjksgj 4- rhFkZ

lkkB;iqLrd % 01- Hkkjrh; ds vej Loj & e-iz- fgUnh xzUFk vdkneh Hkksiky
02- vk/kqfud fgUnh vkSj O;kdj.k & MkW- oklqnso o uanu izlkn
03- fgUnh 'kCn dks’k

IB 205C
Organizational Behavior

Course Outcomes:

CO 1.Understand Evolution of Organisation Behaviour in terms of cognitive, behavioristic and social cognitive aspects.
CO2.Understanding and application of factors affecting motivation with its theories beneficial for today's competitive environment today.
CO3.Understand factors affecting organisational behaviour shaping Personality, Perception and Learning processes of employees.
CO4.Understand Interpersonal Processes and Behaviors, Team Development, Foundations of Group Behavior and Group Dynamics, Developing Work Teams, Team Effectiveness & Team Building for organisational benefit.
CO5.Knowhow of organisational systems and organisational change process, factors affecting change and its coping mechanism.
CO6.Understanding and application of Contemporary theories of leadership, Johari Window, Transactional Analysis and Success stories of today's Global and Indian leaders.

Introduction to Interpersonal and organizational behavior

Definition, meaning, importance of OB, Various models of OB, New Challenges of OB
Study of individual behavior, Characteristics and ability of individual behavior
Learning – Definition, meaning, various theories of learning and their application
Attitude – introduction, meaning, definition, various component of attitude, types of attitude, changing attitude
Job satisfaction – introduction, meaning, measuring of job satisfaction, various effect of job satisfaction & expression of satisfaction/dissatisfaction
Personality – Introduction, meaning, definition, Personality traits, types, Personality traits and other attributes
Emotions – introduction, definition, meaning, Constraints and application of emotions
Perception – introduction, definition, meaning, importance, factors, Persons perception
Decision making – Introduction, meaning, process, styles & constraints of decision making, ethics & culture in decision making

Motivation: Introduction, meaning, definition, theories, various theories of motivation, Employee recognition programme, Involvement/variable pay/skill based pay, special issues in motivation

Group Behavior – introduction, process types and models, various group structure, group decision making, Team type & issues in managing teams.
Leadership – introduction, definition, traits, various theories of leadership, the emerging issues & contemporary issues
Communication – introduction, meaning, process, barrier of communication
Conflict – various thoughts of conflict,
Stress – introduction, definition, meaning, approaches to manage stress.

REFERENCE BOOKS:

Organization Behavior : Stephens.P.Robins
Organization Behavior : Paul Hersey
Organization Behavior : Fred Luthans
Organization Behavior : Schegmerhorn Hunt
Organization Behavior : L.M. Prasad
Organization Behavior : D. Nelson

IB 206A
Programming Using C++

Course Outcomes :

CO-1: Demonstrate knowledge of generation of C & C++ Variables and constant.
CO-2: Demonstrate knowledge of generation of C programming And C++ programming.
CO-3: Understanding the types of operators used in programming.
CO-4: Construct the program related to the Arrays.
CO-5: Understanding the concept of class program and used in the programming.
CO-6: Understanding the pointer declaration and different types of operation with pointer

COURSE CONTENTS

Fundamental of Computer, Flow Chart, Introduction to C Language, Data Type and variable declaration, Basic Programming in C, Formatting output in C, Decision control statement, Conditional statement (if else) and use of math.h header file. Nested if statement, Examples of nested if statement, Loop control statement, while loop, for loop, Use of Break & continue statement, do-while loop, Nested loop, Case control Statements. Example of control statement , goto statement.

Functions & use of functions, passing values between functions, Practical problems using functions, Recursion, Array handling, Single Dimension arrays, Programming using arrays,

Object Oriented Programming, Basic of OOP, How C++ is OPP, Benefits of OPP, Concepts of C++, Abstract data types,

Classes and Objects constructors, Destructors, Functions Of C++, Call by Value, Call by Reference, Types of arguments and function. Overloading, Basic concepts of file Handling, Pointers, Arrays.

REFERRED BOOKS:

1. Let Us C By. Yashwant Kanetkar
2. The C Programming Language By.W.Kernighan & Dennis M. Ritchie
3. Programming with C By. Balaguruswamy
4. Programming with C By. Gottfried, Schaums Outline Series
5. Object Oriented Programming with C++ By. Robert Lafore
6. Object Oriented Programming with C++ By. Balaguruswamy
7. C++ Complete Reference By. Herbert- Schlitz

IB-301A
Corporate Accounting

Course Outcomes:

CO-1: basic knowledge of corporate accounting.
CO-2: Understanding the specific type of transaction faced by a corporate form of organization.
CO-3: Concept of underwriting of securities. Legal Provisions regarding underwriting of securities, numerical problems.

Course Contents:

1. A. Company – Issue of Shares : Company meaning ,definition & characteristics, Share & Share capital ,meaning and Types , Accounting Procedure for issur of shares for cash, Concept of under – subscription & Over-subscription, Issue of shares for consideration other than cash.

1. B. Forfeiture & Re-Issue of Shares: Concept of Calls in Arrears & calls in advances.Forfetture of shares originally issued at Par, Forfeiture of shares originally issued at discount , forfeiture of shares originally issued at premium.
Condept of R- Issue of Forfetted shares. Re-issue at Par, premium & discount, total re-issue & partial re-issue.

1. C. Issue of Bonus Shares: Concept of capitalization of profits, declaration of bonus shares & related accounting treatment, capitalization by making partly paid shares fully paid, capitalization of profits by issuing fully paid bonus shares.

1. D. Underwriting of Securities: Concept of underwriting of securities. Legal Provisions regarding underwriting of securities, numerical problems.

2. Redemption of Preference Shares: Redemption of preference shares fully out of fresh issue, Redemption of preference shares fully out of accumulated profits, Redemption partly out of fresh issue & partly out of accumulated profits, redemption at par, Premium & discount, Preparation of balance sheet after redemption.

3. Debentures & Issue of Debentures: Debentures – meaning & types, difference between shares & debentures. Issue of Debenture for Cash, Issue at Par, Premium and Discount. Issue of Debentures for consideration other than cash. Calls in arrears & calls in advances on debentures & interest thereon.
Payment of interest on debentures – Concept of periodic payment, concept of income tax deduction, purchase if own debentures as investments – concept of Cum-interest & Ex-interest quotation.

4. Redemption of Debentures : Modes of Redemption of debentures & related accounting treatment, Redemption in Lumpsum after a fixed duration, Redemption out of Profits & redemption out of fresh issue. Redemption by annual drawings – Redemption out of profits & redemption out of fresh issue. Redemption by purchase in open market –cum interest & Ex-interest quotation. Redemption by conversion, redemption by sinking fund method & insurance policy method.

5. Valuation of Goodwill: Goodwill – meaning, definition & nature, factors affecting goodwill, circumstances for valuation of goodwill, methods of valuation of goodwill, numerical problems.

6. Valuation of Shares: Shares – concept of value, necessity for valuation, factors affecting value of shares, methods of valuation of shares, numerical problems.

7. Liquidation of Companies: Liquidation – meaning and concept, Accounting treatment, calculation of liquidation, remuneration, legal provisions regarding payment to creditors, numerical problems.

Text Book:
Corporate Accounting by S.M. Shukla

Suggested Reading:
Advanced Accounting by Shukla, Grewal & Sharma
Advanced Accounting by Gupta & Radhaswamy
Advanced Accounting by P.V.Ratnam

IB-302
COST ACCOUNTING

Course Outcomes:

CO1: Understand the term cost, types of cost.
CO2: Students will learn the elements of cost and how to value them.
CO3: Students will acquire knowledge of the cost procedure for different industries
CO4: Students will be able to identify possible inefficiencies or areas neccessary for improvement
CO5: They will also have knowledge on preparing of cost sheets.
CO6: Students skills on cost reduction and cost control will be enhanced
CO7: Students will be able to do cost audit.

Course Contents:

1. Fundamentals Of Cost Accounting: Cost Accounting- Meaning, Objective, Advantages & Importance. Concept & Classification of Cost, Need for Cost accounting, Advantages and Limitations of Cost Accounting, Various techniques of Cost Accounting, Installation of Cost Accounting system, Cost Reduction, Cost Control and Cost Management, Cost Accounting, as compared with Financial & Management Accounting, Concept of Cost Audit.

2. Elements Of Cost- Material: Concept ant Types of Material, Accounting for Issue of Materials from stores; LIFO, FIFO and other methods, Concept and Importance of Inventory Management.

3. Labour: Labour- Meaning & Classification**.** Accounting for Labour : Methods of Wage Payment, Incentive Schemes, Labour Cost Control Procedure.

4. Overheads: Overheads- Meaning & Classification, Accounting for Overheads: Allocation, Apportionment & Absorption Determination of Rates, Under & Over absorption of Overheads & their treatment Computation under various methods

5. Various Costing Methods- I: Unit or Output Costing, Uniform Costing.

6. Various Costing Methods-II: Contract Costing, Process Costing.

7. Various Costing Methods-III: Operating Costing Methods

TEXT BOOK:

Cost Accounting- Principles & Practice by M.N.Arora (Vikas Publishing House, New Delhi)

References: Practical Costing by P.C.Tulsian
Practical Costing by Khanna, Pandey, Ahuja & Batra

Other Study Material : Material issued by the Institute of Cost & Works Accountant of India

Website: WWW.ICWAI.com

Journal: The Management Accountant by ICMA, London

IB-304A
MARKETING MANAGEMENT

Course Outcomes:

CO1:State the role and functions of marketing within a range of organization
CO2: Describe key marketing concepts, theories and techniques for analysing a variety of marketing situations
CO3: Identify and demonstrate the dynamic nature of the environment in which marketing decisions are taken.
CO4: Analyze the relevance of marketing concepts and theories in evaluating the impacts of environmental changes on marketing planning, strategies and practices
CO5: To introduce the concept of marketing mix as a framework for marketing decision making
CO6: Access skills that enable students to target and secure work placements

Course Contents:

1. **Marketing Concepts:** Understanding marketing concept, Basic concepts of Marketing – Need, Wants, Demand, Customer Value and Satisfaction, Customers Delight, Tasks and Philosophies of Marketing.
2. **Marketing Environment:** Develop an understanding of different factors present in marketing environment which influence marketing functions and decisions.
3. **Market Segmentation, Targeting, and Positioning:** Market segmentations, bases for market segmentations, evaluating the market segments, selecting the market segments, positioning, developing a positioning strategy.
4. **Marketing Research:** Meaning and Process.
5. **Consumer Behaviour :** Meaning . Factors, Process of Consumer buying behaviour.
6. **Elements of Marketing Mix: Product Decision:** Product, Product classification, Product-Mix, Product life cycle characteristics and strategies.

   Pricing Decision: Factors affecting price, pricing methods and strategies.

   Distribution Decisions: Importance, Functions and types of Distribution Channel,

   Promotion Decisions: Importance of Marketing Communication, Communication Process, Promotion-Mix elements.

7. **Recent Trends in Marketing:** Develop an understanding of the current issues and practices in marketing like- E-Marketing. Multi level Marketing. CRM, Rural Marketing, Green Marketing.

Text Reading:

- **"Principles of Marketing – A South Asian Perspective",** Philip Kotler, Prafulla Y Agnihotri , Ehsan Ul Haque, Pearson Education, Latest Edition.

- "**Marketing Management – A South Asian Perspective"**, Philip Kotler, Kevin Lane Keller, Abraham Koshy, Mithileshwar Jha, Pearson Education, Latest Edition.

IB-311

INDIRECT TAXES

Course Outcome:

CO1: To acquaint students with the terms of various indirect taxes. Level of knowledge required is working knowledge.

CO2: Understanding of nature of service tax, value of service tax, Exemption from of service tax, Classification of services, Procedure of service tax, other important provisions.
CO3: Understanding of Goods and Services Taxes
CO4: SEZ Units and Applicability of Indirect Taxes

Course Contents:

1. Customs Act, 1962:
Origin & Introduction of custom Duty Types of Custom duty, Exemption from custom duty, valuation of goods (imported & exported) levy of custom duty. Introduction to Custom Procedures (Import Procedures and Export Procedure) Brief outline to baggage, Courier, Post, Ware Housing, Duty Drawback.

2. Central Excise Act, 1944:
The legislative background of the Central Excise including Constitutional provisions. Nature of Excise Duty, Central Excise Duty- chargeability, scope & basis of levy; meaning of goods, manufacture & manufacturer; classification & valuation of goods; duty payment & exemption; provisions dealing with registration.

3. CENVAT: An overview of CENVAT Rules

4 . Service Tax Act, 1994:
Background and nature of service tax, value of service tax, Exemption from of service tax, Classification of services, Procedure of service tax, other important provisions.

5. MP VAT Act, 2002:
Introduction to VAT Act, Taxing Authorities, Incidence of Tax, Levy of Tax, Registration of Dealers , Introduction to Assessment Procedure.

6.SEZ Units and Applicability of Indirect Taxes.

7. **Goods and Services Taxes (GST):** Introduction Constitutional development and recent trends

Suggested Readings:

1. **Direct Taxes Law and Practice by V.K. Singhania**
2. **Indirect Taxes Law and Practice by V.S. Datey**
3. **Systematic Approach to Indirect Taxes by Sanjeev Kumar**
4. **Work Book on VAT and Service Tax by V. S. Datey**

Material issued by ICSI Financial Dailies & Periodicals like Business Standard, The Economic Times & Financial Express, Economic and Political Weekly.

IB-310A
RDBMS

Course Outcome:

CO1: Provide basic knowledge of relational database management systems.
CO2. Acquaint students to database design, develop database models.
CO3. Understand Structured query language as a tool to retrive data from databases like Oracle, SYBASE , MYSQL etc.
CO4: Student must understand advance tools of Data Mining and Warehousing.

Course Contents:

1. Data Environments: Definition of data & Information. Database concepts, Database Management System, Need of database management, Areas of database management, Advantages of DBMS.

2. Logical Data Models: Types of DBMS – Hierarchical, Relational and Network Modes & Which one is popular, why.

3. Database Design: Preliminary design phase detailed design phase, Normalization Theory, (1 to 4 NF)

4. Entity Relationship Model (ER Model): Basic concepts, Design Issues, Mapping constraints, keys E-R Diagram, weak entity set extended E-R features, Design of and E-R database schema reduction of an E-R schema to Tables

5. Relational Database Management Systems: concept of RDBMS, Components of RDBMS, Introduction to SQL, Data Definition Language, Data manipulation Language, Query Language, Data Control Language, Cartesian Products and Joins, Use of union, intersection, minus, SQL operators and functions, SQLselect statement and types of queries, In, Exists, Group By, Having and Like clauses in SQL, Views, Sequence and synoniums, Creating Reparts using sqlplus.

6. Advance Database Concept : DATA Mining and Data Warehousing Design Architecture, Basic Principles, OLAP, OLTP Vs OLAP.

7. Cluster & Association Techniques used in Business

Text Reading

1-Data base concepts by Korth, Sundarhan and Silberschatz.
2-SQL / PL/SQL by Ivan Bayross.
3-Fundamentals of Database Systems by Ramez Elmasri and S.B. Navathe
4-Principles of DBMS by Jeffery D. Ullman.
5-An Introduction to Database Systems by C.J.Date

IB-312
OPERATION RESEARCH

Course Outcomes:

CO1: Understand the practical application of Statistics and Operations Research concept in business and management.
CO2: Importance of Operations Research in decision making.
CO3: Replacement policy for equipment, which deteriorates with gradually, replacement of items that fail suddenly.
CO4: Types of Decision Making Environment (risk, certainty, uncertainty) Concept of Decision Tree.
CO5: Analyze the General structure of queuing system, Queuing Models.
CO1: Inventory Management system, Economic Order Quantity, Models and its application, selective control of inventory.
CO6: Taking decisions in business with the help of Game Theory.
CO7: Concepts of Simulation, Monte Carlo Simulation, Simulation and its applications.

Course Contents

1. **Meaning of Operation Research:** Characteristics of OR, Scope of OR management, Methodology of OR, Advantages and limitations of OR.

2. **Introduction of Linear Programming:** Meaning of linear programming, Mathematical formulation of linear programming problems, assumption, Solution of linear programming by graphical methods.

3. **Simplex Method:** -Maximization problems, Minimization problems (Big M Method), Problem of mixed constraints, Infeasibility. Unbounded ness, Degeneracy, Duality in linear programming problem.

4. **Transportation and:** Introduction, Mathematical formulation of transportation problems, Initial basic feasible solution using NW corner method, Row minima method, Column minima method, Matrix minima method, Vogel's approximation method (VAM), Optimization (Maximization and Minimization) of transportation problems using stepping stone method and MODI method, Unbalanced problem and degeneracy in transportation problems, Transportation problem Maximization type.

5. **Assignment Model:** Hungarian Method

6. **Network Analysis:** CPM/ PERT

7. **Game Theory & its Applications**

TEXT READING

1. Operation Research by J.K.Sharma
2. Quantitative Techniques by N.D. Vohra
3. Operation Research by V.K. Kapoor

SEMESTER IV

CODE-IB-401

INCOME TAX

Course Outcomes:

CO1: Understand the practical awareness of direct tax
CO2: Understand the mechanism of taxation
CO3: Acquire the knowledge of tax planning
CO4: Helps in developing investment Decisions
CO5: Understand the legal compliance's towards income tax

Course Contents:

1. **Introduction:** Definition of Income, Casual Income, Agricultural Income, Person, Assessee, Previous year, Assessment year, Gross Total Income, Total Income; Exempted Income; Heads of Income, Residential Status & Tax Liability
2. **Computation of Income from Salary:** meaning & definition Different forms of Salary Allowances, Perquisites Valuation of allowances & perquisites. Valuation of allowances & perquisites. Provisions regarding Provident Fund, Entertainment Allowances, Professional Tax, computation of income from salary.
3. **Income from House Property:** Introduction & Important provisions, Types of House Property. Determination of Gross Annual Value, Municipal Tax & Deductions u/s 24.Treatment of unrealized rent & Vacancy period. Computation of income from house property.
4. **Income from Business or Profession:** Meaning, income chargeable under Income Tax (section 28) Income chargeable under Income Tax (section 28) Deductions in respect of expenses & allowances. Disallowed expenses. (Excluding special business) Depreciation, computation of income from business and profession.
5. **Capital Gain:** Meaning, Items included & types of Capital Gain/Loss. Computation of Capital Gain/Loss. Capital Gain Exempted from Tax. (U/s 54,54B, 54D, 54ED, 54F, 54G, 54H) Capital Gain Exempted from Tax. (U/s 54,54B, 54D, 54ED, 54F, 54G, 54H). Computation of taxable capital gains
6. **Income from Other Sources:** Meaning & types of Income. Allowable & Disallowable Deductions, exempted incomes. Computation of Income from other sources.
7. **Set off & carry forward of Losses:** Set Off of Losses under- same head, other head. Carry forward & set off. **Deductions:** Deductions u/s 80Cto 80U **Assessment of Individuals:** Assessment of Individuals & tax liability. Procedure for Assessment Advance Payment of Tax.

Book

1- Income Tax: Law & Accounts by Dr.H.C. Mehrotra

2-Reference Book: Students Guide to Income Tax by Dr. V. K. Singhania

Suggested Readings: Material issued by ICSI Financial Dailies & Periodicals like Business Standard, The Economic Times & Financial Express, Economic and Political Weekly.

CODE-IB-404

COMPANY LAW

CO1: Understand the important provisions of The Companies Act, 1956, as amended.
CO2: knowledge of important provisions of The Companies Act, 1956.
CO3: Understanding about the insight of various important provisions applicable to limited companies.

Contents:

1. **Company-** Meaning and definition, characteristics of joint stock companies, types of companies difference between private and public limited companies.
2. **Promotion and incorporation of companies**-Promotion, Incorporation of companies, promoters: meaning and importance, process of incorporation: preparation contents and importance of various documents to be filed, Memorandum of Association, Articles of Association, certificate of commencement of business.
3. **Memorandum of Association and Articles of Association**- Contents and alteration.
4. **Privileges to Private Ltd. Companies**: Special privileges available to private limited companies, conversion of private limited company into public limited company; conversion of public limited company into private limited company.
5. **Capital of the company**- Share and its types, Debentures and its types, difference between shares and debentures, share certificate, share warrant and stock.
6. **Prospects**- Meaning and definition, contents and registration of prospectus, issue and allotment of shares.
7. **Borrowing Powers of the company**- Restriction on the borrowing, Ultra Vires borrowings, Borrowing ultra vires the company, Borrowing intra vires the company but ultra vires the directors.
8. **Management of Companies**- Board of Directors: Appointment, Qualifications and disqualification, powers, duties and position of directors, removals of directors.
9. **General Principles of Meetings**- Statutory Meeting, Annual General Meetings, Extra-ordinary General Meetings, Board Meetings.
10. **Winding-up of Companies**- Meaning and types of winding-up, provisions relating to winding-up.
11. Prevention of oppression and mismanagement, rights of minority shareholders.

Books

1-Dr. Avtar Singh : Indian Company Law (Latest Edition)
2-N. D. Kapoor: Elements of Company Law (Latest Edition)
3-A.K. Maumdar and G.K. Kapoor: Company Law (Latest Edition)
References : A. Ramaiya: Company Law & Practice (Latest Edition)
1-V. Balachandran :Company Law and Practice (Latest Edition)
Journals: Company Law Journal, Chartered Secretary, Corporate Law Adviser & financial dailies like Business Standard, The Economic Times etc

CODE-IB-403
MANAGEMENT ACCOUNTING

Course Outcomes:

CO1: Understanding of the principles of Management accounting
CO2: Significance of Management Accounting in the planning and control functions of management.
CO3: Understanding use of Financial ratios in financial decision making.
CO4: Financial Statement analysis and it use.
CO5: Preparation of budgets
CO6: Understanding the concept and use of Fund flow and Cash flow statements.
CO7: Understanding the concept and use of Standard Costing and Variance Analysis.
CO8: Impart knowledge of recent trends in management accounting.

Course Contents:

1: Introduction & Basic Concepts:
Introduction to Management Accounting, the Balance Sheet & related concept. The Profit and Loss account & related concepts. Difference between Management, Cost & Financial Accounting.

An Introduction to Financial Statements Analysis: An overview of Financial Statement Analysis,Meaning, Importance of Financial Statements, Techniques of financial statement analysis

2: Fund Flow Statement: Importance, Limitations, Utility of Fund Flow Statement to different parties, Preparartion of schedule of changes in working capital and its utility, calculation of funds from operation,Numerical problems.

3: Cash Flow Statement: Meaning, Importance, Advantages, Limitations. Computations of cash from operations and other activities, Difference between fund flow and cash flow analysis,Numerical problems.

4: Ratio Analysis: Meaning,Advantages,Limitations,Significance and Classification of ratios,computation of profitability ratio,Turnover Ratio,Solvency Ratios and Numerical Problems

5 : Cost Volume Profit Analysis: Marginal cost and Break even, Margin of safety (MOS), Assumptions of Break Even Analysis, Numerical Problems.

6 : Standard Costing & Variance Analysis: Meaning & Definition of Standard Costing,Standard Vs Estimated and Historical Cost, Limitation and Advantages, Variance Analysis and its classification.

7: Budgetary Control & Miscellaneous:
Budgeting and Budgetary Control, Meaning,Objectives,Advantages,Limitations,Essentials of successful budgetary control, classification of budgets. **Miscellaneous:** MIS & Reporting, Foreign Currency Accounting, Responsibility Accounting, Management Audit.

Book

Text - Management Accounting by S.P.Gupta (Sahitya Bhawan, New Delhi)

References : 1. Management Accounting by I.M.Pandey
2. Principles of Management Accounting by DR.S.N.Maheshwari
3. Management Accounting by Khan & Jain

Journals: 1. "THE MANAGEMENT ACCOUNTANT" (ICMA, LONDON)
2. "THE CHARTERED ACCOUNTANT" (ICAI, NEW DELHI)

CODE-IB-408

ENTREPRENEURSHIP

Course Outcomes:

CO1: Understand the concept of entrepreneur, entrepreneurship and their characteristics
CO2: Analysis of entrepreneurship and its environment- social, cultural and technological
CO3: Creative idea and its development into a business plan, study on sources of new ideas
CO4: Creativity, Innovation and Idea Generation methods
CO5: Implications of New Ventures, and Financial Management in New Ventures
CO6: Issues of Marketing for New Ventures
CO7: An analysis of Problems faced by new ventures, and expansion strategies for New Ventures.
CO8: Detailed implications of the Expansion strategies for new ventures.

Course contents:

1. **Concept of Entrepreneurship**: Concept of Entrepreneur, Concept and features of Entrepreneurship, Enterprise, Characteristics Of Entrepreneur, Characteristics of Entrepreneurship, Functions of Entrepreneurs, Entrepreneurial skills, Entrepreneur v/s Entrepreneurship, Attributes of Entrepreneurship. Difference between Managers and Entrepreneurs, Classification of Entrepreneurs, Entrepreneurship Environment.
   Activities and Assignments: Group task: studying various success stories of entrepreneurs and discussing their characteristics and reasons for success.

2. **Creativity, Innovation and Idea generation:**
   Creativity and Innovation, Creativity process, Innovation and Entrepreneurship linkage,
   Searching and selecting business ideas, Methods of generating new ideas
   Activities and assignments: Idea generation by students.

3. **Organizational Structure of new venture and Project Planning:** Definition of Organization, Importance of Organization, Steps in Organizing, Functions/Forms of Organizations
   Project Planning: Steps in business planning, Uses of a business plan, Criteria for a good
   business Plan.
   Activities and assignments: Students asked to finalize on their ideas and start writing business
   plans.

4. **Financial Management Issues in new venture:** Types of Industrial Finance, Sources of Finance.

5. **Marketing Management Issues in new venture:** Functions of Marketing, Product Concepts, Distributions, Promotions, Pricing, The Marketing Plan, Marketing Strategies.

6. **Problems Of new ventures:** Internal Problems, External Problems.

7. **New Venture Expansion Strategies And Legal issues for the Entrepreneur :** Joint Ventures, Acquisitions, Mergers, and Franchising, Patents. Legal Issues For The Entrepreneur: Trademarks, Copyrights.

Books

1) Entrepreneurship for SSI: Vasant Deasi (Text Book)
2) Entrepreneurship: New Venture Creation: David H. Holt
3) Entrepreneurship in small Scale factor: D Naxendra Kumar
4) Entrepreneurship development – Programs & Practices: Jasmer Singh Saini

IB-411

ACCOUNTING INFORMATION SYSTEM AND PACKAGES

Course Outcome:

CO1: Develop the understanding of Accounting Information system and how it can be used in organization for decision making.

CO2: Understand Structured query language as a tool to retrieve data from databases like Oracle.

CO3: Students get familiar with accounting package like TALLY.

Course Contents:

Introduction : Introduction to AIS: Advantages and Disadvantages of AIS.

Steps in Designing AIS. Features of Good AIS. History and background of Accounting Software's and commercial languages. Limitation of Traditional accounting information architecture, Manual accounting information system V/s Computerized accounting.

Introduction to SQL: Query databases to provide insights about business operations and performance Creation of Master files, Designing of Transaction file structure for cash voucher using SQL. Designing of Transaction file for Journal voucher .Sales voucher & Purchase entry. Designing of Transaction file for Sales & Purchase. Extracting information from the files.

Vouchers: Various types of vouchers used in Account entries. Effect of vouchers on Trial Balance, P&L and Balance sheet.

Introduction to Tally: Concept of accounting, Master files and Transaction files. Cash vouchers entry in accounting packages like Tally. Bank vouchers entry in accounting packages like Tally,. Designing of Transaction file for bank voucher using VFP. Journal vouchers entry in accounting packages like Tally etc.

System Analysis and Design: System Analysis and Design of a business event driven system, EDP controls

Books

SQL/PLSQL by Ivan Bayros

An Introduction to Database by C.J. Date

IB-412
HUMAN RESOURCE MANAGEMENT

Course Outcomes

CO1:.Develop an understanding of the dimensions of the management of Human Resources with reference to HRM policies and practices in India.

CO2:Understand acquisition of Human Recourses by Human Resource planning in evolving small and Entrepreneurial organisation.

CO3:Identify formulation and essentials of sound HR Policies, Role and Responsibilities of the human resource Managers, process of recruitment and selection along with Administrative, operational and strategic role of HR.

CO4: Understand development of Human Resources through Learning, training and Development and performance Appraisal and application of career and succession planning.

CO5: Understand Maintenance of HR by Job Evaluation, Designing and Administering the wage and salary structure, compensation, grievance handling procedure.

CO6: Identify merging Trends and Challenges in HRM, expanding human capital, Ethics and HRM, HR management competencies and careers – Knowledge of Business organizations.

COURSE CONTENTS:

1. The field of HRM: an overview, concept and functions, Personnel to HRM, ASTD HRM model.
2. Acquisition of Human Recourses :Objectives, Policies and process of Human Resource Planning, Human Resource planning in evolving small and Entrepreneurial organization,, Job analysis, job description, job satisfaction, job design (nature of job design, job characteristics, Reengineering Jobs, Using Teams in Jobs, Advantages and disadvantages of team jobs, consequences of job design) ,Recruitment, promotion and transfer.
3. The Human Resource Organization, Structure of Human Resource Management, Role and Responsibilities of the human resource selection, Induction and placement department(Administrative, operational and strategic role of HR) Human Resource Policies: Formulation and essentials of sound HR Policies.
4. Development of Human Resources: Learning, training and Development, Evaluation of Training and performance Appraisal (Appraising individual and Team performance), Introduction to career and succession planning.
5. Maintenance of HR: Job Evaluation, Designing and Administering the wage and salary structure, compensation, grievance handling procedure.
6. Separation Process: Turnover, Retirement, Layoff, Retrenchment and Discharge, VRS (Mechanism of VRS, VRS in public sectors and private sector) , Rehabilitation of surplus employees.
7. Emerging Trends and Challenges in HRM : economic and Technological changes, work force availability and quality, Enhancing organizational performance, expanding human capital, Ethics and HRM, HR management competencies and careers – Knowledge of Business organizations and organization culture, influence of change management, specific HR knowledge and expertise.

BOOKS

1. A Handbook of Human Resource Practice by Michael Armstrong
2. Personnel / Human Resource Management by David S. Decenzo and Stephen P. Robbins.
3. Human Resource management by Robert L. Mathis and John H. Jackson

B.Com. (Hons.) Semester : V

IB-501A
Advance Accounting

Course Outcomes:
CO1: know about the Different Accounting Standards of the Indian and International companies.
CO2: Know about the Final accounts of the companies and holding companies.
CO3: Know about the Accounting for the Internal and external reconstruction of the companies.
CO4: know about the International Financial Reporting Standards.
CO5: Familiar with the latest trends of accounting of inflation, human resources, responsibility, social and environmental, brand accounting.

Course Contents

1.ACCOUNTING STANDARDS AND IFRS
Introduction, Meaning, need & utility. Accounting standards in India, formulation and scope of Accounting standards, details of relevant of accounting standards. An introductions to IFRS, Indian context.

2.FINAL ACCOUNTS OF COMPANIES (Excluding Managerial Remuneration)
Definition, form & contents of balance sheet, abridged form of balance sheet, important points regarding balance sheet and profits/ loss A/c., Requirements as to profit/loss A/c. Appropriation of profits. Profit &Loss appropriation a/c

3.FINAL ACCOUNTS OF HOLDING COMPANIES:
Meaning of holding & subsidiary company, merits, constitution & control of Holding companies computation of goodwill, computation of capital reserve, computation of minority interest, preparation of consolidated balance sheet & consolidated Profit/loss a/c

4.ACCOUNTING FOR INTERNAL RECONSTRUCTION OF COMPANIES:
Internal Reconstruction –meaning & necessity, framing the scheme of internal reconstruction, reduction of capital, creditors & debenture- holders, dissenting shareholders, Reconstruction otherwise then reduction of capital.

5.ACCOUNTING FOR EXTERNAL RECONSTRUCTION OF COMPANIES
Amalgamation- meaning & objectives, amalgamation in the nature merger, amalgamation in the nature of purchase, purchase consideration & its accounting records in the books of transferor & transferee companies, treatment of specific issues, calculation of internsic value of shares, dissenting shareholders, cancellation of common debts and unrealized profits, inter-company holdings.

6.AN INTRODUCTION TO RECENT & EMERGING TRENDS:
Inflation Accounting and price level changes. Human Resources Accounting and Responsibility Accounting, Environmental Accounting, Social Accounting, Brand Accounting.

Books:
Text Book:
Corporate Accounting by Maheshwari and Maheshwari (Fourth Edition)
Suggested Readings: Advanced Accountancy by Shukla, Grewal and Sharma
Advanced Accountancy by Gupta and Radhaswamy
Advanced Accountancy by P.V. Rathnam

IB 502A
Indian financial system :

Cource Outcome:

CO1: Know about the meaning, components and functions of the Indian and global financial system, guidelines of the SEBI and RBI.
CO2: Familiar with different types of the Money Markets, functions and regulations of the primary and secondary markets
CO3: Know to evaluate the risks and Credit and security ratings of different agencies in india.
CO4: Familiar with the different types of Mutual Funds and their schemes with SEBI guidelines.
CO5: know about recent trends , practices and developments in the Indian financial markets

Course Content

1.INDIAN FINANCIAL SYSTEM

Definition, Meaning, Components, Functions and Role In Economic Development. Reforms in the Financial System, SEBI and RBI. Introduction to Global Financial System.

2.MONEY MARKET

Money Market & It's Characteristics, Types of Money Market, Mutual Funds, Commercial Bill Market, Treasury Bill Market, Other Money Market Instruments, Discount and Finance House of India.

3.CAPITAL MARKET- PRIMARY

Primary Market- Meaning & Significance, Instruments of Primary Markets, Public Issue of Securities, Underwriting of Public Issues, SEBI & Regulation of Primary Market

4.CAPITAL MARKET- SECONDARY

Stock Exchanges, Introduction, Functions, Trading & Settlement, Regulations Related to stock Exchanges, SEBI & Regulation of Secondary Market

5.CREDIT RATING

Evaluation of Risk & Credit Rating, Various Credit Rating Agencies In India, Short Coming of Security Ratings

6.MUTUAL FUNDS

Introduction, History of mutual funds, types of mutual fund schemes, SEBI Guidelines on Mutual Funds.

7.RECENT TRENDS & DEVELOPMENTS IN INDIAN FINANCIAL MARKETS.

Textbooks:
Indian Financial System by Bharti Pathak
Financial Institutions and Markets by L.M. Bhole

Suggested Readings: Material issued by ICSI Financial Dailies & Periodicals like Business Standard, The Economic Times & Financial Express, Economic and Political Weekly.

IB-503A
Secretarial Practice

Cource Outcome:

CO1 Understanding of duties, Rights & Responsibilities, Profession of Company Secretary in India. Procedure of appointment of a Company Secretary & Secretarial Auditor.

CO2: Procedure of Incorporation of a limited company & Drafting of various important documents relating thereto, Procedure of Commencement of Business of a Public Limited Company.

CO3: Alteration & Modification in various important documents of a company, viz: Memorandum of Association & Articles of Association

Course Contents:

1.COMPANY SECRETARY: Introduction, meaning, duties, Rights & Resposibilities, Profession of Company Secretary in India. Procedure of appointment of a Company Secretary & Secretarial Auditor.

2.FORMATION & CONVERSION OF COMPANY : Procedure of Incorporation of a limited company & Drafting of various important documents relating thereto, Procedure of Commencement of Business of a Public Limited Company, Conversion of a Private Limited Company into Public Limited Company & vice versa.

3.ALTERATION: Alteration & Modification in various important documents of a company, viz: Memorandum of Association & Articles of Association

4.APPOINTMENT, CHANGES ETC. IN MANAGEMENT: Procedure of Appointment, Removal & Re- appointment of Company's Directors, including Managing & Whole-time Directors.

5.SHARE CAPITAL & MEMBERSHIP: Procedure of Allotment of Shares, Consolidation & Sub-division of Shares, Conversion of Shares into Stock/Warrant & vice versa, Procedure of Transfer & Transmission of Shares, De-materialisation of Shares & it's process, Process of issue of Share Certificates.

6.MEETINGS: Calling & Conduction of Meetings of Shareholders & Board of Directors, including pre & post meeting formalities, viz: Drafting of Notice, Agenda , Minutes & Filing of various Forms & Documents under The Companies Act, 1956.

7.ANNUAL REPORTS : Preparation of Chairman's Speech & Directors' Report, Statement on Corporate Governance, Directors' Responsibility Statement & Compliance Certificate.

8.STATUTORY BOOKS & REGISTERS: An overview of various important Books & Registers to be maintained by companies and filing of various Forms & Returns under the Provisions of The Companies Act, 1956. E-filing (MCA 21 Norms)

9.RECENT TRENDS: Latest Developments in Corporate Secretarial Practices. Secretarial Standards & Various Guidelines issued by Concerned Authorities from time to time.

Text Readings:

Secretarial Practice by M.C. Kucchal

Material issued by ICSI on Corporate Laws and Secretarial Practice

IB 504 A
E-BUSINESS

Cource Outcome:

CO1: Identify the basic understanding of electronic commerce and electronic business.
CO2: Understand the use of Internet Technology in day to day commercial transactions.
CO3: Differentiate between Traditional Marketing and online Marketing.
CO4: Understand the business models used in online electronic business environment.
CO5: Develop basic understanding of various modes of electronic payment and its infrastructure.
CO6: Know the various security threats and its technological solutions in electronic commerce and electronic business environment.

COURSE CONTENTS:

1.E-Business: Fundamentals, E-Business framework, E-Business application, E-Business and E-Commerce, Network Infrastructure for E-Business, E-Business Models.
2.The Internet : Internet and its evolution, Internet key technological concept and protocols, Internet and World Wide Web, its features,
3.Inter-organization Business: EDI application in business, EDI: legal, security, standardization and EDI, EDI software implementation, VANs (value added net work) Internet based EDI.
4.Business to Business Intermediations: Virtual supply chain and Supply chain management
5.Handling money on the net: type of E-payment, digital token–based e-payment, smart card, credit card payment systems, risk on e-payment, designing e-payment. Credit Card Frauds,
6.Electronic market place of buyers and sellers: Consumer and business markets: ordering on-line, Advertisement and marketing on Internet, Offering customer product on the net, electronics customers support. Web–catalogues
7.Online Financial Services: Online Financial Consumer Behavior,Online Banking, Online Insurance Services
8.Website Development : Components of Website Development
9.HTML: Introduction to HTML, Basic html Tags, Text formatting, Applying images to web-pages, Forms, Frames ,Tables, CSS.

TEXT READINGS

H.Albert Napier,Ollie Rivers,Stuart Wagner,"CREATING A WINNING E-BUSINESS",Thomson Publication,2007
Ravi Kalakotta & Whinston B., "Frontiers of E-Commerce", Addison-Wesley, New Delhi, 2000Kenneth C. Laudon,C G,Traver ,
"E-commerce Business,Technology,Society",Pearson Education,2003

IB 505
INSURANCE AND BANKING

COURSE OUTCOMES:

CO1: Enhance understanding of fundamentals of risk in Insurance and Banking.
CO2: Understand banking system in India, retail and corporate products of banks in India.
CO3: Understand payment and settlement systems in India.
CO4: Understand functions of RBI.
CO5: Understand legal environment for Insurance and banking.
CO6. Understand basic principal and practices of Insurance in India.

Course Contents:

1.Risk and Insurance

Risk : Concept of risk and its classification, features, cost of risk, methods of managing pure risk, assessment of pure risk.

Risk Management: concept, objectives, risk management process.

Insurance: Concepts, characteristics, Functions, significance of insurance, Classification of Insurance and Different types of policy.

Reinsurance: Concepts and advantages of reinsurance.

2. The Basic Principle of Insurance:

Utmost good faith, Insurable Interest, Indemnity, Corollaries of Indemnity, Proximate cause.

3.Practice of Insurance

Life Insurance: Products, Riders, Options, documents and Claims

General Insurance: Products, Rating, and Concept of Underwriting, Claims.

4.Commercial Banking System and Structure

Introduction & Definition of Banking, Structure of Banking System, Function of Commercial Bank, Credit Creation, Commercial Bank Financial Statement and its analysis.

5.Bank Customer relationship: forms of bank customer relationship, types of customer and their accounts, bank duties and rights.

6.Hi-Tech and Retail banking: Electronic Banking, innovation in products and services in banking.

7.Central Banking: Definition and Function of Indian Central Bank.

8. Legal Environment- Insurance and Banking

Insurance Regulatory Authority: IRDA- Brief profile, functions & power.

Negotiable Instruments: meaning of negotiation and its features – characteristics of negotiable instruments – Cheque and it's distinction from, crossing of Cheques – types and effect of crossing-practices- case laws. bill of exchange and promissory note.

Text and Reference Books:

K C Shekhar and Lekshmy Shekher, Banking Theory and Practice, Vikas Publishing House Pvt Ltd.

D. M. Mithani, Money Banking, International Trade and Public Finance. Himalaya Publishing House.

Dr. G. Kotreshwar, Risk Management Insurance and Derivatives, Himalaya Publishing House.

Mathew M.J; Insurance Principles and Practice, RBSA Publishers, Jaipur

Mishra M.N; Insurance,Principles and Practice, Sarmaha Books

Practice of General Insurance, IC-11, Insurance Institute of India

Practice of Life Insurance, IC-02, Insurance Institute of India

IB 510
Macro Economics:

Course Outcomes:

CO1: Understand the dynamics of macro-economic environment

CO2: Develop the skill of not only calculating the national income but also be able to interpret the data

CO3: Understand the concept of money and types of money supply

CO4: Know about inflation and its measurements

COURSE CONTENT:

1. Introduction: Meaning, Importance, Types, and Limitations of Macro Economics. Macro Economic Variables. Goals of macro economic policies, stock and flow variables, exogenous and endogenous variables, EX- ANTE and EX-POST concepts.

2. Measurements of Macro Economic Aggregates and National Income Determination: National Income and its Aggregates, Real & Nominal GDP, Methods used in calculation of national income. Importance of national income estimates. Difficulties in the measurement of national income.

National Income Determination: National income determination models under open and closed economy, Aggregate demand and supply,

Theory of multiplier: simple investment multiplier, government expenditure, tax, balanced budget and foreign trade multiplier, limitations, leakages and importance of multiplier.

3. Theories of Consumption, Investment & Savings function: Keynes' psychological law of consumption, factors affecting Marginal Propensity to Consume. Savings function in Indian economy. Investment, its types, factors affecting investments, MEC and factors affecting MEC. Accelerator principle.

4. Money and Interest Rates: Money and its role, measures of demand and supply of money, interest rate and IS- LM framework.

5. Inflation and Deflation: Types of inflation, Inflationary gap, causes and consequences of inflation and Deflation.

6. Monetary, Fiscal Policies and Business Cycles: Objectives and Instruments of Monetary and Fiscal Policies. Business Cycles: Concept and phases of Business cycles, Monetary and Non Monetary theories of business cycles

7. Basic Macro Economic concepts for Open Economy : Balance of Payments, Current and Capital account, Official reserve account, causes of disequilibrium and methods of correcting in adverse of Balance of payments.

READING LIST:-

G. MANKIW- MACRO ECONOMICS
FRED GOTHIEL – PRINCIPALS OF MACRO ECONOMICS
EDWARD SHAPIRO – MACRO ECONOMIC ANALYSIS
SUNIL BHADURI – MACRO ECONOMICS
M.C. VAISH – MACRO ECONOMICS
H.L. AHUJA- MACRO ECONOMICS- THEORY AND POLICY

B.Com. (Hons.) Semester : VI

IB-601A
Corporate Tax Planning

Cource Outcome:

CO1: Know about the tax planning of domestic and foreign companies with respect to tax evasion, tax avoidance and corporation tax planning.

CO2: familiar with the calculation of the total income tax and capital gain and tax liabilities of companies.

CO3: Know about the tax planning of New business firms, financial management decisions regarding dividend and bonus shares.

CO4: Know about the special tax provisions w.r.t to free trade zones, infrastructure development and tax incentives to exporters.

CO5: Familiar with tax deduction at sources (TDS), tax collection at source, advance payment of taxes.

Cource Contents:

1.Introduction: Corporation tax, Tax Planning, Tax Evasion, Tax Avoidance, Tax Management, Dividend Tax, Domestic Company, Foreign Company.

2.Computation of Total Income and Tax Liability of Companies: Income from business, capital gain, income from other sources, total income.

3.Tax Planning for new Business: Location and Nature of Business, Forms of Business Organization

4.Tax Planning and Financial Management Decisions: Tax Planning relating to Capital Structure Decision, Dividend Policy, Inter-Corporate Dividends and Bonus Shares

5.Tax Planning and Managerial Decisions: Tax planning in respect of Own or Lease, sale of assets used for scientific research, make or buy decisions, repair, replace, renewal or renovation of an asset, shut-down or continue decisions.

5.Special Tax Provisions: Tax provisions in respect of Free Trade Zone, Tax provisions in respect of Infrastructure Development, Tax provisions in respect of Backward Areas, Tax provisions in respect of Tax Incentives to Exporters.

6.Amalgamation

7.Tax Payment: Tax deduction at source, Tax collection at source, and Advance payment of tax

Recommended Books:

Reading: Corporate Tax Planning & Management by H. C. Mehrotra & S. P. Goyal

Corporate Tax Planning and Business Tax Procedures by V. K. Singhania

References: Students Guide to Income Tax by. V. K. Singhania,

Direct Taxes Law & Practice by V. K. Singhania

Journals: Chartered Secretary, Chartered Accountant

Financial Dailies: Business Standard, The Economic Times, Financial Express etc.

IB-602
Auditing

Cource Outcome:

CO1: basic knowledge of Auditing system & various auditing procedures & techniques needed to apply for auditing.
CO2: Verification & valuation of assets & liabilities, audit of revenue and capital expenditure.
CO3: Company audit and CARO
CO4: Audit reports & certificates

Cource Contents:

Introduction: Origin & development, Definition, scope & importance of Auditing Classification of audit according to the applicable auditing standards.
1.Objectives: Detection & prevention of frauds & errors
2.Principles: techniques & procedure of auditing
3.Internal control, internal check & internal audit
4.Vouching
5.Verification & valuation of assets & liabilities, audit of revenue and capital expenditure.
6.Depreciation, provisions & reserves,
7.Divisible profits & dividends
8. Qualities, qualification, appointment, remuneration, rights, duties & liabilities of auditors
9.Investigation
10.Company audit and CARO
11.Audit reports & certificates
12.Types of audit: Audit of banking co., Audit of insurance co., Audit of electricity co., Audit of educational institutes, Audit of hospitals, Audit of hotels, Audit of charitable institutes, Audit of clubs(prepare the audit).
13.EDP audit and EDP audit and techniques. practical problems & cases.

Books:

Auditing: Srinivasam Anann G. (Taxmann)
Auditing – Principles & Practices: S.D. Shah
Principles & Practices of Auditing – Saxena R.G. (Himalaya)

IB-603 A
Public Finance and Treasury

Cource Outcome:

CO1 : Understand government finance and there implication on economy.
CO2.: Develop understanding of Public revenue, debts, expenditure and Deficit financing.
CO3: Understand functions of treasury operations

Cource Contents:

Unit 1: Public Finance: Meaning, Importance, scope and functions. Public finance Vs. Private finance Govt. role and performance in mixed India's economy. Public Enterprises- features, management structure, merits and demerits.

Unit 2: Public Revenue: Meaning, source of public revenue, canons of taxations. The division of tax burden, principles of tax burden, objectives of taxation, characteristics of ideal Taxation, effects of taxation. Types of taxes –Direct & Indirect taxes.

Division of tax burden I- socio political theory, expediency theory.

Division of tax burden II- ability to pay theory.

Unit 3: Public Debt: The meaning of public debt and differences between public and private debt. Sources, forms and need for public debt. Effects of public debt, Role of Public debt in economic development, public debt and inflation, burden of public debt.

Unit 4: Public Expenditure: Meaning, classification and objectives of public expenditure, causes of the increase in public expenditure, importance and effects of public expenditure. Principles of public expenditure. Increasing trend of public expenditure.

Unit 5: Deficit financing: Meaning, definition, effects, purposes, and limitations of deficit financing. **Budget**: introduction; kinds of Public budget, economic and functional classification of budget, Balance budget: arguments for and arguments against balance budget.

Unit 6: Treasury Management and Integrated Treasury: meaning , scope, objectives, function and organizational structure of treasury management. Integrated Treasury: Cost centre and profit centre functions of integrated treasury benefits of integration, structure of integrated treasure.

Unit 7: Risk Analysis and Control: Financial Risk and Operation Risk.

Books: Public Finance: H.L.Bhatia (Vikas Pub)
Treasury Management in India: V.A. Avdhani (Himalya pub.)
Treasury Risk Management: S.K. Bagchi
Public Finance: D.M.Mithani (Himalya Pub.)
Money, Banking, International Trad and Public finance: M.L. Jhingan

IB-605
Financial Management

Cource Outcome:

CO1: Understanding of working capital management, Estimation and calculation of working capital management, Account Receivable, Inventory And Cash Management.

CO2: understanding of the fundamental concepts of finance including but not limited to time value, capital budgeting and the cost of capital, working capital management.

CO3: Analysis of Capital Budgeting Decision: Nature of Investment decisions, Investment evaluation Criteria.

Cource Contents:

1.Financial Management – An Introduction: The Scope and Function of Finance

2.Concept of Value: Time preference for Money, Compound value & Present Value

Analysis of Capital Budgeting Decision: Nature of Investment decisions, Investment evaluation Criteria.

3. The Cost of Capital: Concept & Significance of cost of capital, Specific & Weighted Average Cost of Capital, Marginal Cost of Capital.

4. Long Term Sources of Finance: Shares, Debentures and Term loans

5. The Management of Current Assets: Concept and planning of working capital management, Estimation and calculation of working capital management, Account Receivable, Inventory And Cash Management.

6. Financing Decisions: Concept of Leverage, Operating leverage, Financial Leverage, Combine Leverage.

7. Dividend Decision: Concept & significance, Determinants and constraints, Capital Structure Planning, Features of an appropriate capital Structure, Factors determining capital Structure, capital structure theories.

Reference Books :

Financial Management, I M Pandey

Fundamental of Financial Management; James C Van Horne & John M Wachowicz, Jr

Financial Management Text & Problems by M Y Khan & P K Jain

Financial Management; Prasanna Chandra.

IB 610
International Business:

Cource Outcome:

CO1: Know about the nature, importance , advantages and theories of the International business.
CO2: familiar with the International monetary system, IMF , world bank, foreign exchange system.
CO3: Familiar with regional economic cooperation and treaties of Europe, America and asian countries, UNCTAD , WTO
CO4: Know about the National and International business Environment, types of foreign trade and investments, sources of financing foreign trade, payment terms of export transactions
CO5: Familiar with the alliances, mergers, acquisitions, joint ventures, ecological considerations and opportunities in the International business.

Cource Contents:

1. Introduction to International Business: Nature of international business, need and importance of international business stages of internationalization, approaches to international business theories of international business, mercantilism, absolute advantage, comparative advantage, factor endowment, competitive advantage, Tariff and Non-tariff measures.

2 International Monetary System: History of the System & Need for the System, IMF, World Bank, Foreign Exchange System.

3. Regional Economic Co-operation: Forms of regional groupings (Trade Blocks); Integration efforts among countries in Europe, North America and Asia & UNCTAD, WTO– an overview.

4. International Business Environment: National and foreign environments and their components - economic, cultural and political-legal environments; Trends in India's foreign trade.

5. International Financial Environment: Foreign investments - types and flows; Foreign investment in Indian perspective.

6. Financing of foreign trade and payment terms: Basic documents in foreign trade, Sources of financing foreign trade, Payment terms of Export transactions.

7. Opportunities in International Business- with special reference to India: Strategic alliances, mergers and acquisitions; Indian joint ventures and acquisitions abroad; International business and ecological considerations.

Suggested Readings:

1. Charles, W.L. Hill., "*International Business",* New Delhi: Tata McGraw-Hill, 2003.
2. Johnson, ,Derbe., and Colin Turner, "*International Business - Themes & Issues in the Modern Global Economy",* London: Roultedge, 2003.
3. Cherunilam, Francis., "*International Business: Text and Cases"*, Prentice Hall of India Ltd., 2004.
4. John, H. Daniels and Lee H. Radenbaugh," *International Business Environments and Operations*, Delhi: Pearson," (2001).
5. Justin, Paul., "*International Business"*, Prentice Hall of India Ltd., 2003.
6. RBI, Report on Currency & Finance, various issues.
7. P.G.Apte, "*International Financial Management"*, Tata McGraw Hill.

IB 611
Management Information System:

Cource Outcome:

CO1: Know the meaning, importance of MIS in business organizations, components of MIS (DSS,ESS,KM,OAS,TPS).

CO2: Strategic role of MIS in decision making process, importance of data and information

CO3: Importance of transaction processing system , documentation and report generation.

CO4: Know about different types of Information systems like Business information system, Marketing information system, HR information system, Accounting and financial information system

CO5: Familiar with the advantages of modern MIS like MRP, MRP-II, ERP systems and SAP

Cource Contents:

1.The meaning & role of MIS : The meaning & role of MIS- What is MIS system view of business. System approach. Importance of MIS. Evolution of MIS. Computers in MIS. Concepts of DSS, ESS, KM, OAS, TPS.

2.Information Systems and Organization: Data & Information, Management and Decision Making Information Systems and Society. Technical and Behavioral aspects.

3.The strategic role of Information: As a strategic resource containing competitive force. It products and services linking with customers and suppliers.How is affects organization-Economic theories, Behavioural theories. Organisational resistance to change, Implication for the design and understanding of I.S.

4. Management Decision Making: Information Management. Decision Making- What managers do, behavioural model. Classical description of management. Level of decision making, types of decisions, structured unstructured types of decisions systems stages of decision making, individual model of decision making.

5.TPS: Introduction**,** Data entry process, batch processing, real time processing, file and database processing, Document and report generations.

6.Business Information system : Business function Information system: Introduction Marketing Information Systems manufacturing Information systems, HR Information Systems accounting information systems & financial information systems.

7.Modern Information Systems: Modern Information Systems: ERP Introductions MRP, MRP-II, Definition Implementation benefits & Precautions ERP software.

TEXT READINGS:

Murdick. et. al. Information System for Modern Management- PHI.

London & London – Management Information Systems – PHI

Obrien – Management Information System

DEVI AHILYA VISHWAVIDYALAYA, INDORE

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES

CURRICULUM (SCHEMES)

&

COURSE OF CONTENTS offered in

2018 –2019

MCA 6 YEAR (BCA 3Yrs + MCA 3Yrs) PROGRAMME

Name of the Program: MCA (6Yrs.) Integrated Program

Programme Specific Outcomes

The MCA (6 years) is the only Program of its kind in India. The students undergo rigorous training, which moulds them into highly competent and focused professionals. In a period of five and a half years a student studies a total of 57 subjects. The course structure is designed keeping in mind the overall development of the student. The students have to maintain a high standard of academic performance throughout the course. The classroom learning is complemented by practical experiences in the industry. The course includes compulsory project development at graduation level.

PSO1: A project is also included in the curriculum for the post graduate degree to supplement detailed studies in advanced topics such as Simulation and Modeling, Advanced Database Management and Information Technology Project Management.

PSO2: Experimental Learning is Learning by Experience. Philosophy is the cornerstone approach of IIPS. The fundamental tools and functional knowledge is developed through a carefully coordinated sequence of study in the first three years of the MCA programme.

PSO3: The next three years emphasize on refining this journey with practical exposure. The MCA curriculum includes project work that requires students to confront the actual challenges and dynamics faced by real companies making crucial decisions. Knowledge acquired in the classroom is bolstered with techniques of the workplace.

PSO4: Entrepreneurial Mindset Being able to think out of the box is essential in today is marketplace. In the MCA program, students also learn how to manage change and solve problems beyond the limitations of traditional paradigms. Equipped with this entrepreneurial tool kit, MCA professionals can organize and manage new ventures or provide added value to their employers.

PSO5: The major thrust is on giving the students a sound background in three components namely, computing, business functioning and mathematics fields, relevant to information technology. A strong laboratory component as a part of the curriculum, along with theory enables the students to learn concepts of Data base management system, Programming languages, computer network, Data structure, Artificial intelligence, System programming, Computer architecture etc.

PSO6: Advanced knowledge in Enterprises resource planning, Enterprises computing technique, network security, Compiler design, Soft-computing, Bioinformatics, Managerial economics, Cloud computing, design Pattern etc.

PSO7: Ability for higher education and research in the areas of Students have ability to do research in different area of computer science such as VLSI, Mobile computing, Artificial intelligence, networks etc.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES
DEVI AHILYA VISHWAVIDYALAYA, INDORE
SCHEMES OF EXAMINATION FOR MCA 6 Yrs (BCA III yr) PROGRAMME
(Subject to Revision)

Semester V

Code	Subject	L	T	P	C
IC-501	Internet and Web Programming	3	1	0	4
IC-502	System Programming	3	1	0	4
IC-503	JAVA Programming	3	1	0	4
IC-504	Computer oriented Numerical Methods	3	1	0	4
IC-505	Organization Behavior	3	1	0	4
IC-506	Internet and Web Programming Lab	0	0	4	2
IC-507	JAVA Programming Lab	0	0	4	2
	Comprehensive Viva	0	0	0	4
					28

Semester VI

Code	Subject	L	T	P	C
IC-601	Computer Graphics	3	1	0	4
IC-602	Human Computer Interface	3	1	0	4
IC-603	Unix And Shell Programming	3	1	0	4
IC-604	System Analysis & Design	3	1	0	4
IC-605	Project				4
IC-606	Unix And Shell Programming Lab	0	0	4	2
IC-607	Computer Graphics Lab	0	0	4	2
	Comprehensive Viva	0	0	0	4
					28

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES DEVI AHILYA VISHWAVIDYALAYA, INDORE SCHEMES OF EXAMINATION FOR MCA 6 Yrs (IV yr) PROGRAMME

Semester VII

Code	Subject	L	T	P	C
IC-701	Design & Analysis of Algorithms	3	1	0	4
IC-702	Computer Architecture	3	1	0	4
IC-703	Advance Java	3	1	0	4
IC-704	Operating System	3	1	0	4
IC-705	Analog Electronics	3	1	0	4
IC-706	Advance Java Lab	0	0	4	2
IC-707	Design & Analysis of Algorithm Lab	0	0	4	2
	Comprehensive Viva				4
					28

Semester VIII

Code	Subject	L	T	P	C
IC-801	Computer Networks	3	1	0	4
IC-802	Theory of Computation	3	1	0	4
IC-803	Advance Database Management Systems	3	1	0	4
IC-804	Software Engineering	3	1	0	4
IC-805	Optimization Techniques	3	1	0	4
IC-806	Computer Network Lab	0	0	4	2
IC-807	Advance Database Lab	0	0	4	2
	Comprehensive Viva				4
					28

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES DEVI AHILYA VISHWAVIDYALAYA, INDORE
SCHEMES OF EXAMINATION FOR MCA 6 Yrs(V yr)PROGRAMME (Subject to Revision)

Semester IX

Code	Subject	L	T	P	C
IC-901	Object Oriented Analysis and Design	3	1	0	4
IC-902	Compiler Design	3	1	0	4
IC-903	Network and Information Security	3	1	0	4
IC-904	Artificial Intelligence	3	1	0	4
IC-905	Bioinformatics	3	1	0	4
IC-906	Project				4
IC-907	Artificial Intelligence Lab	0	0	4	2
	Comprehensive Viva				4
					30

Semester X

Code	Subject	L	T	P	C
IC-1001	Data Mining and Warehousing	3	1	0	4
IC-1002	Parallel Processing and Distributed Computing	3	1	0	4
IC-1003	Enterprise computing Technique	3	1	0	4
IC-1004	Managerial Economics	3	1	0	4
IC-1005	Elective I	3	1	0	4
IC-1006	Enterprises Computing Technique Lab	0	0	4	2
	Comprehensive Viva				4
					26

Elective I

Multimedia Computing
Software Testing & Quality Assurance
Principal of Programming Language

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES DEVI AHILYA VISHWAVIDYALAYA, INDORE SCHEMES OF EXAMINATION FOR MCA 6 Yrs (VI yr) PROGRAMME (Subject to Revision)

Semester XI

Code	Subject	L	T	P	C
IC-1101	Wireless and Mobile Computing	3	1	0	4
IC-1102	Enterprise Resources Planning	3	1	0	4
IC-1104	Elective II	3	1	0	4
IC-1105	Research Methodology & Practices	3	1	4	6
IC-1106	Wireless and Mobile Computing Lab	0	0	4	2
	Comprehensive Viva				4
					24

Elective II

Cloud Computing
Design Patterns
Image Processing

Semester XII

Code	Subject	L	T	P	C
IC-1201	Project				24

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES
DEVI AHILYA UNIVERSITY, INDORE

MCA (6 Years)

I SEMESTER

2018 –2019

Code	Subject	L	T	P	C
IC-101	Mathematics-I	3	1	0	4
IC-102	Physics-I	3	1	0	4
IC-103	Fundamentals of Programming using C	3	1	0	4
IC-104	English & Communication Skills	3	1	0	4
IC-105	Computer Fundamentals	3	1	0	4
IC-107D	C programming Lab	0	0	4	2
IC-110B	Computer Fundamentals lab	0	0	4	2
IC-108	Comprehensive Viva	0	0	0	4
					28

IC-101
MATHEMATICS-I

Course Outcomes:

CO1: Understand basic concepts of Partial differentiation, Maxima & Minima of the function, convergence and divergence of the series.
CO2: Solve mathematical problems based on the course material.
CO3: Develop mathematical skills and methods appropriate for students in the computer science.
CO4: Understand more advanced mathematical courses.

Course Contents:

UNIT I
Differential Calculus: Successive differentiation, Leibnitz's theorem, Expansion of functions, Maclaurin's theorem, Taylor's theorem, Indeterminate forms.

UNIT II
Tangents and Normal, curvature, Asymptotes.

UNIT III
Partial Differentiation: Euler's theorem on homogeneous functions, Mean value theorem and Taylor's theorems of two variables.
Application: Maxima and minima of functions of two and more variables, Lagrange's method of undetermined multipliers.

UNIT IV
Integral Calculus: integration of irrational, and Transcendental functions, Reduction formulae, Integral as the limit of a sum, summation of series.

UNIT V
Convergence and Divergence: Convergence and Divergence of infinite series, Definition and various tests.

Text Books:
1. Gorakh Prasad, Integral Calculus.
2. Gorakh Prasad, Differential Calculus

Reference Books:
1. Shanti Narayan, Differential Calculus.

IC-102
PHYSICS-I

Course Outcomes:

CO1: Understand basic concepts of physics such as circuit elements electromagnetic induction, capacitors and some laws related to passive elements.
CO2: Develop and apply knowledge and understanding of physics.
CO3: Develop the knowledge and skills for more advanced learning in physics.

Course Contents:

UNIT I

Static and current Electricity: Charge, coulomb's law, Electric field Intensity, Dipole fields. Electric Potential, flux of electric field, Gauss's law and its applications, Torque on a dipole in uniform Electric field.

Growth and Decay of current is R-L and R-C circuits, decay constants, A.C currents A.C. with R-L, R-C and L-C-R circuits, series and parallel resonant circuits, Q-factor and Band Width.

UNIT II

Capacitors: Capacitors, factors affecting capacity, types of capacitors, series and parallel connection of capacitors, Capacity of Parallel Plate Condenser, Capacity of Parallel Plate Condenser when dielectric is filled partially, Energy stored in a capacitor, Redistribution of charge when two conductors are connected by a conductor wire. Dielectrics and Dielectric Polarization.

UNIT III

Motion of charged particles in Electric and Magnetic fields: E as an Electric field, Electron gun, Linear Accelerator, E as a deflecting field, C.R.O and sensitivity of C.R.O, Transverse Magnetic field, Principles of Cyclotron.

UNIT IV

Basic Semiconductor Physics: Intrinsic and extrinsic semiconductors. Donor and Acceptor levels, P-N Diode, Explanation of PN diode with Forward and Reverse Bias conditions, Breakdown of P-N Diode, Zener Diode.

UNIT V

Applications of Diodes: Full Wave Rectifier, Bridge Rectifier and Qualitative concept of Filters.

Bipolar Transistors: PNP and NPN Transistors-Characteristics of a Transistor in Common Base and Common Emitter mode, Current amplification factor.

Text Book

1. Unified Physics --R.P.Goyal

Reference Books:

1. Basic Electrical circuits- Volume-I--B. L. Thareja
   Basic Electronics--B. L. Thareja
2. Physics part –II- Resnick and Halliday

IC-103
FUNDAMENTALS OF PROGRAMMING USING C

Course Outcomes:

CO1: The principle objective of this course is to develop logic of problem solving and learn basics of programming methodologies.
CO2: Develop the program development logic for the given problem.
CO3: Recognize and understand the syntax and construction of C code.
CO4: Hands on experience of procedural language programming.
CO5: Hands on experience of steps involved in compiling, linking and debugging C code.
CO6: Apply all the concepts that have been covered in the theory course.

Course Contents:

UNIT I
Introduction to Programming Language & Problem solving Approach: Development of flow charts & Algorithms, Why Programming Language? Program development steps, Programming language classification, Translators, Program design techniques. History of C Language, Feature of C Language, Why is C Language Popular? Structure of C Program, A Sample C Language Program. Errors, Compilation and Execution of C Programs and Exercise.

UNIT II
Useful terms of Language: Data types, The C character set, Constants, Variables, Keywords, C Instructions, Type Modifier, Storage class specifies, Storage classes in C and Exercises. Operator Expressions and Assignment Statements: Arithmetic Operators, Relational and Logical Operators, Increment and decrement Operators, Assignment Operators and Expressions, Conditional Expression, Precedence and order of Evaluation and Exercises.

UNIT III
Control Structure in C: Decision Control Structures, Loop Control Structures, Conditional Statements and Exercises, break Statement, The continue Statement. Console Input and Output: Introduction to Input / Output, Unformatted and Formatted Input / Output Function.

UNIT IV
Array: Introduction to Array, One Dimensional Array, Multidimensional Array, Initialization, Declaration, Storage and Access Mechanisms on Array and Exercises. String Manipulation: Introduction to Strings, Two Dimensional Array of characters. Function: Introduction to Functions, Function Declaration and Prototypes, Function Definition, Call by Value and Call by Reference, return statement, exit() function, Function with arguments, Calling Function with Array, Command Line, Arguments, Recursion in Function.

UNIT V
Structure: Structure Definition, Giving Values to members, Structure initialization, Comparison of Structure variables, Array of Structure, Array within Structures, Structures within Structures, Passing Structures to Functions, Why use Structure, Features and Uses of Structures. Union: Union Definition and Declaration, Accessing a union Member, Union of Structures, Initialization of a Union Variable, Use of Union, Use of User Defined Type Declarations.

Text Books:

1. Let us C, By Y.P. Kanitkar, B.P.B. Publications

Reference Books:

1. C -The Complete Reference, Tata Mcgraw Hill Publications
2. C-How to Program, By Deitel & Deitel
3. Programming in C & C++, By S.S. Khandare, S. Chand Publications

IC-104
ENGLISH & COMMUNICATION SKILLS

Course Outcomes:

CO1: The principle objective of this course is to enable students to improve both their ability to communicate and linguistic competence in English language.
CO2: Knowledge of correct usage of English with an emphasis on reading and writing skills.
CO3: Practice writing skills at sentence and paragraph levels with correct grammatical structures.
CO4: Practice and learn English speaking skills to communicate in daily situations effectively.

Course Contents:

UNIT I

Meaning and Definition of communication, Process of Communication. Objectives and functions of communication.

UNIT II

Components of effective communication, 4C's of effective communication. Group discussion. Listing skills, types of skills.

UNIT III

Types of communication – verbal, non-verbal, written and oral communication. Report writing. letter writing

UNIT IV

Communication barriers, formal and informal channels of communication. Public speaking.

UNIT V

Practical Training :
Making effective presentation

Reference Books:

1. C. S. Raydu, Communication Skills.
2. Andal N., Communication Models.
3. Keval J. Kumar, Communication Barriers.
4. Dennis Maquail, Effective Communication.

IC-105
COMPUTER FUNDAMENTALS

Course Outcomes:

CO1: The principle objective of this course is to students understand basics of computer and its working.
CO2: Knowledge of basic units and model of computer.
CO3: understand number system for data representation in computer.
CO4: Understand basics of Operating system and DBMS.
CO5: Learn working with MS Office and Internet.

Course Contents:

UNIT I

Introduction to Computer: Definition, Characteristics, functions and applications of a Computer, Components of a Computer: Hardware and Software, Block diagram of a computer: Input devices, Output devices, CPU, Memory. Classification of computer, generation of computer. Data representation and computer software: Number system-Binary, Decimal, Octal, Hexadecimal and its conversion. Computer software: system software and application software. Computer languages: Machine, Assembly, High level and Fourth generation languages

UNIT II

Introduction to Operating System: Definition and functions of an Operating System, Type and classification of Operating Systems.. Introduction to Data Base Management System: Introduction, Quality of information, What is Database, DBMS? Why a database, DBMS? Types of DBMS

UNIT III

Microsoft office environment: Microsoft Word: Working with Word, Typing and Editing, Formatting Text, Page design and layout, adding tables, using graphs, mail merge Microsoft Excel: Working with excel, entering data, formatting, customizing workplace, calculation in worksheet, adding charts, advanced features of excel. Microsoft–PowerPoint: Working with PowerPoint, Adding Text, Including Multimedia, Customize PowerPoint, Microsoft Access: Creating database, addition and deletion of records, searching, sorting and indexing the records, creating tables and records, advance features of Access.

UNIT IV

Internet and World Wide Web: Introduction, Internet access, Internet basics, Internet protocols, Internet addressing, Web pages and HTML, Web browser and search engines, Electronic mail. Computer Security: Physical access restriction, Passwords, Firewalls, Cryptography, Computer virus, Bombs and worms. Antivirus software. MSDOS: DOS features, External and Internal Commands, Managing disks, advanced command techniques, working with batch programs. Microsoft Windows and its environment

UNIT V

Introduction to Multimedia: Introduction, Multimedia in entertainment, Multimedia in software training, Multimedia in education training, Multimedia server and databases, Multimedia tools.

Text Books:

1. Alexis Leon, Introduction to Computer
2. Alexis Leon, Introduction to Information Technology

Reference Books:

1. P.K.Sinha ,Fundamentals of computers .

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES
DEVI AHILYA UNIVERSITY, INDORE

MCA (6 Years)

II SEMESTER

2018 – 2019

Subject Code	Subject Name	Credits
IC-201	Mathematics – II	4
IC-202	Chemistry & Environmental Science	4
IC-203	Basic Electronics	4
IC-204	Object Oriented Programming Using C++	4
IC-205	French	4
IC-206	Lab Viva (Electronics)	2
IC-207	Lab Viva (Computer)	2
	Comprehensive Viva	4
Total		**28**

IC-201
MATHEMATICS-II

Course Outcomes:

CO1: The principle objective of this course is to understand advanced mathematical concepts and techniques.

CO2: Understand basic concepts of curve tracing, rectification, groups, cosets, homomorphism and isomorphism.

CO3: Solve mathematical problems based on the course material.
develop mathematical skills and methods appropriate for students in the computer science

Course Contents:

UNIT I

Curve tracing: Introduction, pre-requisites, for the curve tracing, maxima & minima, concavity and convexity of the curve, Singular points, asymptotes, symmetry, tangents, Main points of tracing the curve in Cartesian and polar form, some problems on curve tracing.

Improper integral: Improper Integral definition, types of the improper integral, their convergence, Beta Gamma function and their properties, some important deductions followed by some numerical problems

UNIT II

Rectification: Methods and formula for finding out the length of curve in Cartesian and polar form, numerical, intrinsic equation. Derivation of formula for finding the area under plane curve, followed by some problem solving.

Multiple integrals: Integration of function of two and three variables. Double and triple integral. Drichlet integral. Change of order of integration. Use of double and triple integral in finding the area and volumes of Cartesian curves.

UNIT III

Groups and their general properties : Binary Operation, algebraic structure, definition and example of groups, examples. Order of an element in a group. General properties of a group. Modulo System. Subgroup, complex subgroup, definition and examples, algebra of complexes. Criterion for a complex to be a subset of a group. Union and intersection of subgroups. Cyclic group and subgroups generated by a subset of a group. Theorems generating system of a group

UNIT IV

Coset and coset decomposition : Coset definition, properties of cosets. Cosets decomposition. Partioning of a group. Relation of congruency modulo in subgroups. Lagrange theorem with its corollaries. Index of a subgroup in a group. Fermat and eular theorems. Multiplication of two subgroups. Order of the product of subgroup of finite order.

Normal subgroup & quotient group: Definition, example and theorems on normal subgroup quotient groups. Cener and normalize of a group. Conjugate, self-conjugate elements of different groups.

UNIT V

Homomorphism and isomorphism of groups : Definition of homomorphism of groups, examples, various types of homomorphism, auto-homomorphism, inner automorphism, theorem, maximal normal subgroup. Permutation, Transformation groups and Cayley's thermo.

Matrix : Meaning of matrices,addition,scalar multiplication,product of matrix,adjoint and inverse.Elementary Transformations.Rank of matrix,Normal forms.Application of matrix for solving system of Linear equations.

Text Books:

1. Gorakh Prasad, Integral Calculus.

Reference Books:

1. Shanti Narayan, Differential Calculus.
2. R.B. Thakur, Advanced Calculus.
3. H.K. Pathak, Calculus For IInd Yr.

IC-202
CHEMISTRY & ENVIRONMENT SCIENCE

Course Outcomes:

CO1: learn chemistry of various engineering materials and processes, their importance, properties, testing, structure-property relationship, tailoring and their applications in various technologies.

CO2: understand and develope aware with various environmental issues and pollution and control studies in modern society for sustainable development

Unit –I High Polymer:

Introduction, types and classification of polymerization, Natural & Synthetic Rubber; Vulcanization of Rubber, Preparation, Properties & uses of the following- Polythene, PVC, PMMA, Teflon, Poly acrylonitrile, Nylon 6, Nylon 6:6, Terylene, Phenol formaldehyde Resin.

Unit –II Energy:

Sources of Energy: Renewable & Non Renewable, Fossil fuel, Biomass, Geothermal, Hydrogen, Solar, Wind, Hydal, Nuclear energy.

Unit –III Ecosystem:

Segments of Environment: Atmosphere, Hydrosphere, Lithosphere, biosphere, Cycles in Ecosystem – Water, Carbon, Nitrogen, Biodiversity: Threats and conservation.

Unit –IV Air Pollution & Sound Pollution:

Air Pollution: Air pollutants, classification, (Primary & Secondary Pollutants) Adverse effects of pollutants, Causes of Air pollution chemical, Greenhouse effect, Ozone layer depletion, Acid rain. Sound Pollution: Causes, Controlling Measures, Effects of sound pollution.

Unit –V Water Pollution & Sound Pollution:

Water Pollution: Pollutants in water, Adverse effects, Treatment of Domestic & Industrial water effluent.

Society, Ethics & Human values: Impact of waste on society. Solid waste management (Thermal, Plastic, Agriculture, Domestic and E-waste), Ethics and moral values, Ethical situations, Objectives of ethics and its study, Preliminary studies regarding Environmental Protection Acts.

Text Book:

1. "Energy Environment Ecology and Society" By Dr. Surinder Deshwal Dhanpat Rai Publication

References:

1. Harris, CE, Prichard MS, Rabin's MJ, "Engineering Ethics"; Cengage Pub.
2. Rana SVS ; "Essentials of Ecology and Environment"; PHI Pub.
3. Raynold, GW "Ethics in information Technology"; Cengage.
4. Svakumar; Energy Environment & Ethics in society; TMH
5. AK De "Environmental Chemistry"; New Age Int. Publ.
6. BK Sharma, "Environmental Chemistry" ; Goel Publ. House.

IC-203
BASIC ELECTRONICS

Course Outcomes:

CO1: The principle objective of this course is to introduce students with basic concepts of electronics.
CO2: Understand basic components of circuits.
CO3: Understand the use of diodes as power supply rectifiers.
CO4: Understand the operation of transistors as switching circuits.

Course Contents:

UNIT I

Basic Components: Circuit Symbols, Working Principle, Classification according to construction, Specification, and applications of passive components-Resistors & Color coding, Inductors, Transformers, Switches, Relays (Electromagnetic), Thermistor, LDR, Microphone and Loudspeakers.

UNIT II

Capacitors:- Capacitance, Capacitor Specifications, Classification of Capacitor-Fixed(Mica, Paper, Ceramic, Plastic, Electrolytic etc), Variable capacitor (Trimmer, Padder, Gang), Stray capacitance, Leakage Resistance, Testing of Condenser, Area of Application, Problem related to Electrical Energy Storage.

UNIT III

Semiconductors: Conductors, Semiconductors and Insulators, Classification on the basis of Band Theory, Intrinsic and Extrinsic Semiconductors, Diode current equation (Derivation not required), Drift & Diffusion.

UNIT IV

P-N Junction-Forward and reverse bias of Diode. Concept of recombination of carriers, Temperature variation of Forward and Reverse Current through the P-N Junction. Characteristics of Forward & Reverse Bias Diode, Dynamic and Statics Resistances, Voltage dependent Junction Capacitance of a P-N Junction

UNIT V

Special Diodes: Zener Diode, its construction and characteristics, Temperature coefficient of Zener Diode, Zener Diode as Voltage Regulator, Schottky Diode, Power Diode, Tunnel Diode, LED, Solar Cell, Photodiodes.

Text Books:

1. Boylstad, Electronics devices and circuit theory.
2. Milliman J. Halkias C, Integrated electronics

Reference Books:

1. Malvino A.P., Electronics principal
2. B.L. Theraja, Electrical Technology
3. V.K. Mehta Principal of electronics.

IC-204
OBJECT ORIENTED PROGRAMMING USING C++

Course Outcomes:

CO1: The principle objective of this course is to help students to gain a better understanding of Object Oriented design and program implementation by using Object Oriented language features.
CO2: Understand object-oriented programming features in C++,
CO3: Apply these features to program design and implementation,
CO4: Understand object-oriented concepts and how they are supported by C++,
CO5: Gain some practical experience of C++,
CO6: Understand implementation issues related to object-oriented techniques,
CO7: Build good quality software using object-oriented techniques

Course Contents:

UNIT I

Principle of Object Oriented Programming, Object-Oriented Terminology, OOP Paradigm, Basic concept of OOP, Benefits of OOP, Application of OOP.
Introduction of C++: Tokens, Keywords, Identifier and constants, Operator, Data Type, Variable Manipulator, Expression and Control structure.

UNIT II

Classes and Function in C++ :
Class: Defining Classes in C++, Classes and Encapsulation, Member functions, Instantiating and Using Classes, Access specifiers, Static Class Members.
Constructor and Destructor: Use of Constructors, Multiple Constructors, Types of constructor, Using Destructors to Destroy Instances.
Function: Function Introduction, Main function, Function Prototyping, inline function, friend function.

UNIT III

Inheritance & Polymorphism: Overview of Inheritance, Defining Base and Derived Classes, Constructor and Destructor Calls, Virtual base classes, Abstract classes.
Overview of Polymorphism
Operator & Function Overloading: Operator Overloading, Working with Overloaded Operator Methods, Introduction to Function overloading.

UNIT IV

Pointer and Virtual Function: Introduction of Pointer, Dynamic memory allocation, Pointers to object, this pointer, Pointers to derived classes, Virtual Functions, Pure virtual function.

UNIT V

Working with files in C++, Exceptions Handling and Templates:
Files: Standard Streams, Manipulators, Unformatted Input and Output, File Input and Output.
Exceptions: Basics of Exception handling, Exception handling mechanism.
Templates: Template Overview, Customizing a Template Method, Standard Template Library Containers.

Text Books:

1. The Complete Reference - C++, Tata Mcgraw Hill

Reference Books:

1. E. Balagurusamy, Object-Oriented Programming with C++
2. Yashwant Kanitkar ,Let us C++.

IC-205
FRENCH

Course Outcomes:

CO1: The principle objective of this course is to give the students the basic knowledge of French language

CO2: Make students understand vocabulary and grammar of French language.

CO3: Introduce some aspects of France, its people and culture.

CO4: Emphasize and develop four linguistics skills.

Course Contents:

Unit I A spring in Paris:

Lesson 1:-Meeting

Lesson 2:-Sympathies

Lesson 3:-Tastes and preferences

Lesson 4:-Agreements and disagreements

Lesson 5:-Surprises

Unit II Adventure in Bourgogne:

Lesson 1:-Countryside house

Lesson 2:-Meals in Broussac

Unit III Grammare:

Articles,Nouns Adjectives,Verbs,Interrogatives,Negatives,Conjugations,Present tense

Unit IV Communication:

Introduce oneself,Invitation writing and accepting invitation,describe the person

Unit V Vocubulary:

Monuments,public places in Paris,professions,different types of houses,etc.

Reference Books: 1. Apprenons le francais 2

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES
DEVI AHILYA UNIVERSITY, INDORE

MCA (6 Years)

III SEMESTER

2018 – 2019

Sub. Code	Sub. Name	L	T	P	C
IC-301	Probability and Statistics	3	1	0	4
IC-302	Financial Accounting	3	1	0	4
IC-303	Digital Electronics	3	1	0	4
IC-304	Data Structure and Algorithms	3	1	0	4
IC-305	Digital Computer Organization	3	1	0	4
IC-306	Digital Electronics Lab	0	0	4	2
IC-307	Data Structure and Algorithms Lab using C++	0	0	4	2
	Comprehensive Viva	0	0	0	4
					28

IC – 301
PROBABILITY AND STATISTICAL METHODS

Course Outcomes:

CO1: The principle objective of this course is to make student aware about the Probability and Statistical Methods for research and real life data analysis.
CO2: Understand basic concepts of Probability and Statistical Methods for data analysis.
CO3: Learn Hypothesis testing.
CO4: Learn the application of different tests such as Chi-square, T & F statistic.

Course Contents:

UNIT 1

Theoretical Probability Distributions: Binomial Probability distribution, Poisson Probability distribution, Normal Probability distribution.

Estimation: Unbiased-ness, consistency, efficiency and sufficiency , minimum variance unbiased estimator , Cramer-Rao inequality and its application , Maximum Likelihood estimator.

Testing of Hypothesis, Simple and Composite hypothesis, Test of significance for Samples, Test for single proportion and for difference of proportion. Test of significance for single mean , Test of significance for difference of means.

UNIT II

Interval estimation: Confidence Interval and Confidence limits, Confidence limits for large samples.

Test of significance: Procedure for testing of Hypothesis, Test of significance for large samples, test for single proportion and for difference of proportions, Test of significance for single mean, Test of significance for difference of means.

UNIT III

Test of significance for small samples: Concept of Chi-square, t and F- statistics, Test for Chi-square distribution, to test goodness of fit, to test independence of Attributes, to test the homogeneity of correlation coefficients.

Test based on t- distribution: t-test for single mean, difference of means , paired t- test, t-test for testing significance of an observed sample correlation coefficient.

UNIT IV

Test based on F- distribution: Test for equality of population variance, Test for testing the significance of an observed multiple correlation coefficients.

Non parametric test: sign- test, median test, run test, Wilcox on signed rank test .

UNIT V

Analysis of variance and design of experiments: One -way and two- way classification with one observation per cell, Design of experiments, completely randomized design randomized block design and Latin square design.

Text Book:

1. S.C. Gupta & V.K. Kapoor : Fundamentals of Mathematical statistics, S. Chand sons.

Reference Books:

1. S.C. Gupta & V.K. Kapoor : Fundamentals of Applied statistics, S. Chand sons.
2. A.M.Gun, M.K.Gupta, B Dasgupta: An outline of statistical theory(Volume 1)
3. Kapoor and SINTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE

IC-302
FINANCIAL ACCOUNTING

Course Outcomes:

CO1: The principle objective of this course is to give an in-depth knowledge of all business transactions and how they should be recorded, classified & interpreted to get a meaningful judgment of viability & profitability of the industry.

CO1: Prepare a set of financial statements for various forms of businesses and nonprofit entities.

CO2: Develop an ability to apply accounting concepts, principles and practices.

CO3: Hand on experience with the basic tools for analyses of financial statements.

Course Contents:

UNIT I Accounting Structure:
Introduction and purpose of accounting and uses of accounting information & basic accounting concepts. Process of accounting, Journal, Ledger & Trial balance, Profit and Loss A/C,Balance Sheet

UNIT II
Introduction to Cash and fund flow Analysis of financial statements & Financial Ratio.

UNIT III
Introduction to cost accounting : Elements of cost , Cost determination , Direct and Indirect cost , Cost centers & cost units , the behavior of cost.

UNIT IV
Capital Structure: Meaning of capital Structure Different Capital Structure Theories.
Time value of money: Introduction to various sources of finance Leverages-Meaning of leverage, Significance of operating & financial Leverage.

UNIT V
Working Capital Management: Concept of Working Capital, Management of cash Management of Inventories, Management of Account Receivable Management, Accountants Payable Over Trading & Under Trading.

Text Book :
1. T.S. Grewal, Introduction to accountancy, S. Chand & co. Ltd.,
2. Dr. S. N. Maheshwari , Financial Management: Principles & Practice

Reference Books:
1. Financial Accounting By Mangal Mehta
2. Financial Management By Shukla Grewal

IC-303
DIGITAL ELECTRONICS

Course Outcomes:

CO1: The principle objective of this course is to understand basic concepts of digital logic, its operations, principles and applications.

CO2: Understand number systems and codes, and Boolean Algebra

CO3: Understand TTL and CMOS circuit characteristics, followed by logic devices such as flip-flops, code converters, counters, multiplexers, and registers.

Course Contents:

UNIT I

Binary Systems and logic circuits. Decimal, Binary, Octal, Hexadecimal numbers and their inter conversions. ASCII, Gray, Excess-3, 8-4-2-1,Error detecting and BCD codes. Logic Gates. Boolean algebra. Demorgon's theorem. Binary addition and subtraction. Unsigned Binary numbers, Signed binary numbers. 2's complement representation and its arithmetic.

UNIT II

Circuit analysis and design.

Boolean laws and theorems. Sum of Product and Product of Sum simplification. Two, three and four variable karnaugh map. NAND and NOR implementation. Other two level implementation. Don't care conditions.

UNIT III

Combinational circuits.

Design procedure. Half adder, full adder, adder-subtractor circuit. Code converters. Various logic circuits. Multilevel NAND circuit. Multilevel NOR circuit.

Data Processing circuits.

Multiplexers, demultiplexers, decoders and encoders. Binary parallel adder, look ahead carry generator, magnitude comparator, ROM, PROM, PLA.

UNIT IV

Sequential circuit.

Flip-flops, triggering of flip-flops. Analysis of clocked sequential circuits, state reduction and assignment, flip-flop excitation tables.

UNIT V

Registers, counters and integrated circuits.

Design of counters, registers, shift registers. Ripple counters, synchronous counters. TTL logic families.

Reference Books:

1. M.Morris Mano , Digital Logic and Computer Design.
2. Malvino A.P. and Leach D.P, Digital Principals and Application.
3. Taub H. and Schilling D, Digital Integrated Electronics

IC-304
DATA STRUCTURES AND ALGORITHMS

Course Outcomes:

CO1: The principle objective of this course is to develop proficiency in the specification, representation, and implementation of Data Types and Data Structures.

CO2: Write programs using object-oriented design principles.

CO3: Understand data structures such as linear lists, stacks, queues. Choose the appropriate data structure and algorithm design method for a specified application.,

CO4: Be familiar with advanced data structures such as balanced search trees, hash tables, priority queues and graphs.

CO5: Having good understanding of sorting and searching techniques.

Course Contents:

UNIT I

Introduction to Data Structure: Introduction to C++, Definition of data structures and abstract data types. Static and Dynamic implementations. Examples and real life applications, Data Structures: Arrays, Address calculation in a single and multi dimensional array. Sparse matrices

UNIT II

Stacks, Queues and Lists: Definition, Array based implementation of stacks, Linked List based implementation of stacks, Examples: Infix, postfix, prefix representation Definition, Array based implementation of stacks, Linked List based implementation of stacks, Examples: Infix, postfix, prefix representation

Applications: Mathematical expression Evaluation

Definition: Queues & Lists: Array based implementation of Queues / Lists, Linked List implementation of Queues / Lists, Circular implementation of Queues and Singly linked Lists, Straight / circular implementation of doubly linked Queues / Lists, Priority queues, Applications

UNIT III

Sorting Searching Algorithm, Hashing: Introduction, Sorting by exchange, selection, insertions, Bubble sort, Selection sort, Insertion sort, Pseudo code algorithm and their C++ implementation, Efficiency of above algorithms, Merge sort, Merging of sorted arrays, merge sort algorithms. Quick sort algorithm, Heap sort algorithm, Radix sort

UNIT IV

Straight Sequential Search, Array implementations, Linked List representations, Binary Search, non – recursive Algorithms, recursive Algorithms, Indexed Sequential Search, Hashing, Hash function, Collision Resolution Techniques, Hashing Applications

UNIT V

Trees & Graphs: Definition of trees and Binary trees,Properties of Binary trees and Implementation, Binary Traversal - preorder, post order, in order traversal, Binary Search Trees, Implementations, Threaded trees, Balanced multi way search trees, AVL Trees, and their Applications.

Definition of Undirected and Directed Graphs and Networks, The Array based implementation of graphs, Adjacency matrix, path matrix implementation, The Linked List representation of graphs, Shortest path Algorithm, Graph Traversal – Breadth first Traversal, Depth first Traversal,

Connectivity of graphs; Connected components of graphs, Weighted Graphs, Applications.

Text Book:

1. A. M. Tenenbaum, Langsam, Moshe J. Augentem, Data Structures using C, PHI Publ.

Reference Books:

1. E. Balagurusamy, Object – Oriented Programming with C++, Tata Mcgraw Hill.
2. A.V. Aho, J.E. Hopcroft and T.D. Ullman, Data Structures and Algorithms, Original edition, Addison-Wesley, 1999, Low Priced Edition.
3. Ellis Horowitz & Sartaj Sahni, Fundamentals of Data structures
4. Robert Kruse, Data Structures and Program Design in C, PHI Pub.
5. Willam J. Collins, Data Structure and the Standard Template library, Tata Mcgraw Hill.

IC-305

DIGITAL COMPUTER ORGANIZATION

Course Outcomes:

CO1: The principle objective of this course is to understand the organization of the computer, and the way the hardware components are connected together to form a computer system, and the development of the hardware for the computer taking into consideration a given set of specifications.

CO2: Understand the various functional units of CPU.

CO3: Study various units of ALU.

CO4: Understand instruction formats and addressing modes.

CO5: Understand interconnection and interfacing of various units of computer system.

Course Contents:

UNIT I

Introduction to computer organization, Von Neumann Architecture, Computer components, interconnection structures, Bus interconnection.

UNIT II

Input output organization: I/O interface models of transfer, interrupt driven I/O, Priority interrupt, DMA, I/O processor and serial communication, Synchronous, Asynchronous data transfer, strobe control, handshaking, PCI, working mechanism of Peripherals: Keyboard, Mouse, Scanners , Video Display, Touch Screen panel etc.(features and principles)

UNIT III

Control Unit: Instruction word format, fetch and execution cycle, sequence of operation of control registers, control of arithmetic operations, microprogramming concepts.

UNIT IV

Memory Organization: Memory hierarchy, internal and external memory. Types of memory: ROM, PROM, EPROM, EEPROM, RAM: SRAM, DRAM

High speed memories: Cache memory, organization and mapping techniques, virtual memory, secondary storage: Magnetic disk, tape, optical memory, CDROM, DVD

UNIT V

CPU Organization: General register organization, stack organization and accumulator type organization. Instruction formats – three address instruction, two addresses, one address and zero address instructions, Instruction set selection. Addressing modes:- Immediate, direct, indirect, register, indexed etc.

Text Books:

1 Computer Organization and Architecture, William Stalling

2 M. Morris Mano , Computer System Architecture, 3rd edition, Prentice Hall of India

Reference Books:

1 Computer Organization by D A Godse and A P Godse

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES
DEVI AHILYA UNIVERSITY, INDORE

M.C.A. (6 Years)

IV SEMESTER

2018 – 2019

Sub. Code	Subject Name	L	T	P	C
IC-401	Data & Computer Communications	3	1	0	**4**
IC-402	Discrete Mathematics	3	1	0	**4**
IC-404	Microprocessor and Assembly Language Programming	3	1	0	**4**
IC-405	Data Base Management Systems	3	1	0	**4**
IC-406	Mini Project	0	0	0	**4**
IC-407	Data Base Management System Lab	0	0	4	**2**
IC-408	Microprocessor and Assembly Language Programming Lab	0	0	4	**2**
	Comprehensive Viva	0	0	0	**4**
					28

IC-401
DATA & COMPUTER COMMUNICATIONS

Course Outcomes:

CO1: The principle objective of this course is to understand the fundamentals of data communications networks.
CO2: Understand basic data communication components.
CO3: Understand the fundamentals of signaling and data transmission.
CO4: Study data link layer and data link protocols.
CO5: Study Network layer, MAC sub layer, LAN and its standards.

Course Contents:

UNIT- I Introduction & Overview of Communication Systems

Data Communication: Components, Data representation, Data flow, Distributed Processing, Network Criteria, Physical structure, Network Models, Categories of Network.
Protocols and Standards: Protocols, Standards, Standards Organizations, Internet Standards. **Guided Transmission Media**: Twisted Pair, Coaxial Pair, Fiber Optics. **Unguided Transmission Media**: Wireless Communication; Cellular Radio; Satellite Communication.

UNIT- II

Network Models: Layered Network Architecture, Peer-to-peer Processes, Layers in OSI Reference Model, TCP/IP model. **Addressing:** Physical, Logical, Port and Specific Addressing, Comparing and Contrasting-OSI & TCP/IP Model.

UNIT- III Physical Layer

Digital Data, Digital Signal: NRZL; NRZI; Bipolar AMI; Pseudo Ternary; Manchester; Differential Manchester; B8ZS; HDB3, Digital Data. **Analog Signal**: ASK; FSK; PSK. **Analog Data, Digital Signal**: PCM; PAM; DM; ADM. **Analog Data, Analog Signal:** AM; FM; PM. **Switching:** Circuit Switch Networks, Datagram Networks, Virtual Circuit Networks. **Multiplexing Techniques:** FDM, WDM, TDM, STDM.

UNIT- IV The Data Link Layer

Data Link Layer Design Issue: Framing; Character Count; Character Stuffing; Bit Stuffing; Physical Layer Coding Violation: Error Control; Flow Control; Error Correcting Codes; Error Detecting Codes; Hamming Codes; CRC Code. **Data Link Protocols**: Stop & Wait Protocol, Unrestricted Stop & Wait Protocol, Simplex Stop & Wait Protocol, Protocol for Noisy Channel, Sliding Window Protocol, Go Back N, Selective Repeat, Verification using File State, HDLC Data Link Protocol, ISDN, ATM.

UNIT-V The Medium Access Protocols

The Medium Access Sub Layer: Channel Allocation; Static; Dynamic, Multiple Access Protocols: ALOHA; CSMA, Collision Free Protocols, Limited Connection Free Protocols, WDMA, Wireless LAN Protocols, Digital Cellular Radio. Overview of IEEE Standards.

Text Books:

1. Data Communications and Networking (IV Edition). B.A. Forouzan (Tata McGraw Hill Publications)

Reference Books:

1. Computer Networks (IV Edition), A.S. Tanenbaum (PHI Publications)
2. Data and Computer Communications, William Stallings (PHI Publications)
3. Data Communications and Networks, Achyut S. Godbole (Tata McGraw Hill Publications)

IC-402
DISCRETE MATHEMATICS

Course Outcomes:

CO1: The principle objective of this course is mathematical concepts that underline much of computer science, and to help them develop the skills to solve problems using them, whether they are in a more advance course, doing research.

CO2: Enhance mathematical reasoning of students.

CO3: Understand Discrete Mathematics such as sets, permutations, relations, graphs, trees and finite-state machines.

CO4: Enhance algorithmic thinking of students.

Course Contents:

UNIT I

Set theory: Introduction, sets and elements, universal set and empty set, subsets, Multiset, Countable and uncountable sets, Venn diagrams, Set operations, Algebra of sets, Power sets, Partitions, Inclusion and exclusion, Mathematical induction, Ordered pair, Cartesian product, Computer representation of sets.

UNIT II

Relations: Introduction to relations, Pictorial representation of relations, Domain and range, Types of relations, n-ary relations, Composition of relations, Equivalence relations, Partially ordered relations.

Functions: Introduction to functions, functions in terms of ordered pairs, Pictorial representation of functions, Types of functions: surjective, bijective, injective etc., Composition of relations, Recurrence relations with applications to algorithm analysis

UNIT III

Logic: Propositions and logic operations, Existential and universal quantifiers, Tautologies, Contradiction, Contingency, Logical equivalence.

Boolean algebra: Combinatorial circuits and their properties, Boolean functions and synthesis of circuits.

Lattices: Partially ordered sets, Chains and anti chains, Hasse diagrams, Lattice, Types of lattices, Sublattices, Some special lattices.

UNIT IV

Graph Theory-I: Definition and applications, Finite and infinite graphs, Incidence and degree, Isolated vertex, Pendent vertex, Types of graph, Subgraphs and isomorphic graph, Operations of graph, Paths, Cycles and connectivity, Eulerian and Hamiltonian graph, Planar graphs, Trees, Properties of trees, pendant vertices in a tree, distance and center, rooted and binary trees, spanning trees, fundamental circuits.

UNIT V

Graph theory-II: Cut sets and their properties, connectivity and separability, Network flows, 1 and 2 isomorphism, Matrix representation of graphs: Incidence and adjacency matrices, Diagraphs and shortest path algorithms, Applications of graphs, General discussion.

Reference Books:

1. J.P.Tremblay and R. Manohar . Discrete mathematical structures with applications to computer science, Tata McGraw Hill Publication
2. C.L.Liu . Elements of Discrete Mathematics, Tata McGraw Hill Publication
3. Llipschutz and Lipson. Discrete Mathematics, Schaum's outline series, Tata McGraw Hill Publication
4. K.A.Ross . Discrete Mathematics.
5. Bernard Kolman & Robert C. Busby. Discrete mathematical structures for Computer Science

IC-404
MICROPROCESSOR & ASSEMBLY LANGUAGE PROGRAMMING

Course Outcomes:

CO1: The principle objective of this course is to introduce the basic concepts of microprocessor and assembly language programming.
CO2: Develop an understanding of the operation of microprocessors.
CO3: Learn assembly language programming.
CO4: Learn the internal organization of some popular microprocessors.

Course Contents:

UNIT I
Microprocessor–Based Systems: Hardware and Interfacing, Microprocessors, Microcomputers and Assembly Language8085, Architecture & Memory Interfacing I/O Devices.

UNIT II
Instruction Set and Addressing modes: Data transfer, Arithmetic, Logical, Branch & Machine control instructions, related programs & Addressing modes.
Additional Programming Techniques and Stack Operations: Subroutine, Counters & time delay, Code conversion, BCD arithmetic, 16 bit data operation.

UNIT III
Interrupt & Interfacing some peripheral I/O: Interfacing data converters, Programmable Interface Devices: 8155 I/O and Timer, 8279 Keyboard / Display interface.

UNIT IV
General purpose programmable peripheral devices: 8255 (Bidirectional data transfer between two computer) 8254 (Programmable Interval Timer), 8259A Interrupt Controller,
8237 DMA, Serial I/O Communication.

UNIT V
Other eight bit, sixteen-bit Microprocessor: Z80, MC-6800, MC-68000, NSC
Introduction to advance Microprocessor: 8086, 80286, 80386, Microcontroller 8051.

Text Books:

- R.S. Gaonkar, Microprocessor Architecture Programming and Application of 8085(Latest Edition).

Reference Book:

- Shridhar and Ghosh, 0000 to 8085 Microprocessor.
- Intel Corporation, Microprocessors and peripheral hand book.

IC-405
DATA BASE MANAGEMENT SYSTEMS

Course Outcomes:

CO1: The principle objective of this course is to handle large database system and to be able to manipulate it efficiently and carry out analysis to design the database.
CO2: Present necessary concepts for database designing.
CO3: Design conceptual, logical database model and physical model.
CO4: Evaluate set of query using SQL and algebra.
CO5: Concepts of RDBMS, and learn Object oriented modeling.

Course Contents:

UNIT I

Introduction, Purpose of Database System, View of data, Three Level -Architecture of DBMS, Data independence, Data models - Physical Model, Logical Model, Conceptual Model, Hierarchical data Model, Network data Model, relational data model, Object Oriented Model and their comparison, Database Languages, Transaction Management, Storage Management, Database Administrator, Database Users, Overall System Structure.

UNIT II

Entity-Relationship Model:- Basic Concepts, Design Issues, Mapping Constraint, Keys, Entity-Relationship Diagram, Weak-Entity Sets, Design of an E-R Database Scheme, Reduction of an E-R Schema to Tables.

UNIT III

Introduction to relational database systems, meaning of tuples, attributes, insertion, deletion, updating and retrieval in relational approach, various operations in relational approach like select, project, join, union.

UNIT IV

Structured Query Language:- Table Fundamentals, data types, creating ,viewing table, inserting, deleting, updating and modifying data in table, Applying data constraints-adding primary key, foreign key, unique key in table. Basic Structure, Set Operations, Oracle functions-string function,, numeric function, Aggregation Functions, Null Values, Nested Sub Queries, Joined Relation, Data Definition Language, Data Control Language, Data Transaction Language
Integrity Constraint:- Domain Constraint, Referential Integrity.

UNIT V

Relational Database Design:- Codd's 12 Rules, Pitfalls in Relational-Database Design, Decomposition, Functional Dependencies, Normalization up to 3NF.

UNIT VI

Introduction to VB and connectivity of database with VB.

Text Books:

1 A Silberschatz, H.F Korth, Sudersan "Database System Concepts" , MGH Publication.
2 Modern Database Management (5th Edition) (Hardcover) by Fred R. McFadden, Jeffrey A. Hoffer, Mary B. Prescott

Reference Books :

1 Elmasri & Navathe "Fundamentals of Database systems" – III ed.
2 B.C. Desai. "An introduction to Database systems" BPB

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES
DEVI AHILYA UNIVERSITY, INDORE

MCA (6 Years)

V SEMESTER

2018 – 2019

Sub. Code	Sub. Name	L	T	P	C
IC-501	Internet and Web Programming	3	1	0	4
IC-502	System Programming	3	1	0	4
IC-503	Java Programming	3	1	0	4
IC-504	Computer Oriented Numerical Methods	3	1	0	4
IC-505	Organization Behavior	3	1	0	4
IC-506	Internet and Web Programming Lab	0	0	4	2
IC-507	Java Lab	0	0	4	2
	Comprehensive Viva	0	0	0	4
					28

IC-501

INTERNET AND WEB PROGRAMMING

Course Outcomes:

CO1: The principle objective of this course is to provide knowledge of internet tools and to introduce some of the basic technologies for creating and processing content on Internet web sites.

CO2: Understand the fundamental concepts of working of internet.

CO3: Design, format and link web pages.

CO4: Write dynamic interfaces using JavaScript.

CO5: Link databases to web sites.

Course Contents:

UNIT I

Introduction to computer networks: Introduction, Components, Standards, Transmission types, Topologies, Transmission mode.

UNIT II

Internet Basics: Introduction, Internet Service Provider (ISP), Search Engines, Web Browse Architecture, Internet Addressing: IP Address IPv4 and IPv6, e-mail address, Domain address, Uniform Resource Locator (URL), Internet Services: FTP, Telnet, E-mail (SMTP), WWW (HTTP), DNS.

UNIT III

Hypertext Markup Language (HTML*):* Web Terminologies, Web Characteristics, Effective web programming, Web Documents: Static, Dynamic, Active, Browser Architecture, Characteristics of HTML, Types of Tags, Basic Tags, List, Table. Introduction to HTML 5.

Dynamic Hypertext Markup Language (DHTML): Introduction, Cascading Style Sheet (CSS): Introduction, Attributes, Types (Inline style, Style element, External Style Sheet), Class, Introduction to *CSS-3*.

UNIT IV

Java Script: Introduction, Document Object Model (DOM), Variables, functions and events, Data Types and operators, Decision making with control structure and statements, Forms, Cookies, Use of Java Script library *JQuery*.

UNIT V

Introduction to PHP, creating Server-side Applications with PHP, Introduction to Extensible Markup Language (XML*)*.Client side Vs Server side scripting.

Required Text(s) :

1. Data Communication and Networking By Behrouz A. Forouzan (Tata McGraw Hill)
2. Web enabled commercial application By Ivan Bayross (BPB)

Reference Books:

1. HTML By Herbert Schildt
2. Web Programming By Chris Bates.
3. HTML 5 and CSS 3: Develop with Tomorrow's Standard Today(Pragmatic Programmers) By Brian P. Hogan
4. Learning jQuery By Jonathan Chaffer & Karl Swedberg (PACKT Publishing)

Electronic Materials, Web Sites etc:

1. http://www.youtube.com/user/basant1978
2. http://www.w3schools.com/html/
3. http://www.w3schools.com/css/

IC-502
SYSTEM PROGRAMMING

Course Outcomes:

CO1: The principle objective of this course is to enhance the understanding of the concepts of System Programming and to provide a basis for judgment in the design of System Software - Preprocessors, Compilers, Loaders, Debuggers, and Assemblers

CO2: Understand basic concepts of system software and system programming.

CO3: Learn the design of assemblers, compilers and preprocessors.

CO4: Understand the working of loaders, linkers, editors, debuggers and other software tools used in programming development environment.

Course Contents:

UNIT I

Introduction to Software: System Software and Application Software, System Programming, Components of Language Processing System, Fundamentals of Language processing systems.

UNIT II

Assembler: Elements of Assembly Language programming, a simple Assembly Scheme, Pass Structures of Assemblers, Design of a Two-pass Assembler, Algorithms for two pass assembler.

UNIT III

Macros and Macro Processors: Macro definition and call, macro expansions, nested macro calls, Advance Macro facilities, Design of Macro Preprocessor and macro Assembler.

UNIT IV

Compiler: Compiler and Translators, cross compilers, phases in complier Design, Design of Lexical analyzer.

UNIT V

Loaders and Linkers: Loader, General loader scheme, Absolute loading, Relocatable Loading, Dynamic Run Time Loading, Linker, Dynamic Linker, Re-locatable and self-relocating programs.

Software Tools: Software tools for program development, Editors, Debugger, Debug Monitors, Programming Environments, User Interfaces, Co-routines and reentrant programs.

Text Books:

1. D. M. Dhamdhere, System Programming and Operating System, 5th edition
2. John. J. Donovan, System Programming, Tata McGraw Hill.

Reference Books:

1 Aho and Ullman , Principles of Compiler Design, Pearson Education.

2 Leland L. Beck, "System Software An Introduction to Systems Programming", Pearson Education 3rd Edition.

3. Dougles. V. Hall , "Microprocessors and Interfacing", Tata McGraw Hill.

IC-503
JAVA PROGRAMMING

Course Outcomes:

CO1: The principle objective of this course focuses on Java programming language fundamentals: its syntax, idioms, patterns, and styles with object oriented programming concepts.

CO2: Write programs using the Java language. Basic topics considered are programs and program structure in general, and Java syntax, data types, flow of control, classes, methods, objects, arrays, exception handling, recursion, and graphical user interfaces (GUIs).

Course Contents:

UNIT I

Introduction to Java: Features of Java, Object-oriented programming overview, Introduction of Java Technologies, How to write simple Java programs, Data Types, Variables, Memory concepts, decision making operators, Naming Conventions Introduction to Class, Objects, Methods and Instance Variables, Primitive type Vs Reference Type, Initializing Objects with Constructors. Type conversion & casting, Operators, Control statement, while, do-while,for, foreach Statements, switch Multiple-Selection Statement, break and continue Statements. Static Method, static field and Math Class, Argument Promotion and Casting, Scope of declaration and Method Overloading.

String Handling & Arrays: String Handling: The String constructors, String operators, Character Exaction, String comparison, String Buffer.

Arrays: Declaring and Creating Arrays, Passing Arrays to Method, Multidimensional Arrays, Variable-Length Argument lists, Using Command-line Arguments. Final Instance Variables, this reference, static import, overloaded Constructors, Garbage collection and method finalize, Overloading methods, Parameter passing.

UNIT II

Inheritance & Polymorphism: Inheritance: Extending classes, protected Members, relationship between Superclasses and Subclasses, Using super, Constructor in Subclasses

Polymorphism: Method overriding, upcasting, Dynamic Method Dispatch, final Method and classes, Abstract classes and Methods, instanceof operator, Downcasting

Packages and Interfaces: Packages: Defining a Package, Understanding CLASSPATH, Access Protection, Importing packages, creating own packages.

Interfaces: Defining an Interface, Properties of interface, advantages of interface, Achieving multiple inheritance through interfaces, Variables in Interfaces.

UNIT III

Nested Classes & Exception Handling: Nested Classes: Overview of nested class and interfaces, static nested class and interfaces, non-static nested class and, anonymous classes.

Exception Handling: Introduction, overview of doing it and keywords used, when to use it, Java Exception Hierarchy, finally block, chained exceptions, declaring new exception types .

Streams and Files: Introduction to Data Hierarchy, Files and Streams, Sequential-access Text Files, Object Serialization, Random-Access files, Java Stream class Hierarchy.

UNIT IV

Multithreading: What are threads, The java thread model, Thread priorities, Thread life cycle, Creating thread and executing thread, Thread Synchronization, producer-consumer problem without Synchronization. Producer-consumer problem with Synchronization, Other class and Interfaces in java.util.concurrent, Monitor and Monitor Locks, Thread Groups, Synchronization, Inter-thread Communication.

Introduction to GUI & Applets: Introduction To GUI : Introduction, Overview of swing Components, Displaying text and Images in a window, Introduction to Event Handling, Common GUI Event Type and Listener Interfaces, How Event Handling Works, Adapter Classes, Layout Managers

Applets: Applet basics, Applet Architecture, Applet life cycle methods, Applet HTML Tag and attributes, Executing applet in web browser and in the appletviewer, in Passing parameters to Applets, doing GUI programming in applet.

UNIT V

Generic & Collection: API Generic: Introduction, Motivation for Generic Methods, Generic Methods : Implementation and Compile- time Translation Issues, Overloading Generic Methods, Generic Classes, Raw Types, Generic and Inheritance

Database connectivity: JDBC, The design of JDBC, Typical uses of JDBC, The Structured Query language, Basic JDBC Programming concepts, Executing Queries.

Text Books:

1. Deitel & Deitel, JAVA How to Program, Pearson Education, Sixth Edition
2. Herbert Schildt , Java : The Complete Reference, Tata McGraw- Hill, 7th Edition

Reference Books:

1. John Hubbard , Programming with Java (Schaum's Easy Outline)
2. JAVA 2 Black Book
3. Bruce Eckel , Thinking in Java, Prentice Hall
4. Gary Cornell, Cay Horstmann Core Java: Volume 1 Fundamentals, Eighth Edition, Pearson,
5. Sams Teach Yourself Java6 in 21 Days

IC-504
COMPUTER ORIENTED NUMERICAL METHODS

Course Outcomes:

CO1: The principle objective of this course is to understand basic numerical methods required for typical engineering and business applications.

CO2: Understanding the properties of different numerical methods so as to be able to choose appropriate methods and interpret the results for engineering problems that they might encounter.

CO3: Find numerical approximations to the roots of an equation by Newton method, Bisection Method, Secant Method, etc.

CO4: Use finite differences for interpolation and learn various interpolation methods.

CO5: Understand numerical integration and differentiation.

Course Contents:

UNIT I

Introduction to Software: System Software and Application Software, System Programming, Components of Language Processing System, Fundamentals of Language processing systems.

UNIT II

Assembler: Elements of Assembly Language programming, a simple Assembly Scheme, Pass Structures of Assemblers, Design of a Two-pass Assembler, Algorithms for two pass assembler.

UNIT III

Macros and Macro Processors: Macro definition and call, macro expansions, nested macro calls, Advance Macro facilities, Design of Macro Preprocessor and macro Assembler.

UNIT IV

Compiler: Compiler and Translators, cross compilers, phases in complier Design, Design of Lexical analyzer.

UNIT V

Loaders and Linkers: Loader, General loader scheme, Absolute loading, Relocatable Loading, Dynamic Run Time Loading, Linker, Dynamic Linker, Re-locatable and self-relocating programs.

Software Tools: Software tools for program development, Editors, Debugger, Debug Monitors, Programming Environments, User Interfaces, Co-routines and reentrant programs.

Text Books:

4. D. M. Dhamdhere, System Programming and Operating System, 5th edition
5. John. J. Donovan, System Programming, Tata McGraw Hill.

Reference Books:

1 Aho and Ullman , Principles of Compiler Design, Pearson Education.

2 Leland L. Beck, "System Software An Introduction to Systems Programming", Pearson Education 3rd Edition.

6. Dougles. V. Hall , "Microprocessors and Interfacing", Tata McGraw Hill.

IC-505
ORGANIZATION BEHAVIOR

Course Outcomes:

CO1: An organization is a living organism whose basic component is the individual.

CO2: The students are required to gain the intricacies of individual behavior in order to function effectively and efficiently in the organization.

CO3: Potential sources of conflicts which will make their careers interesting and enjoyable.

Course Contents:

Unit 1 Foundation of Individual Behavior : Concept, definition and importance of Organizational behavior. Application of Organizational behavior in personal and professional life.

Unit 2 learning concept, definition and learning theories,perception and its process. Personality concept definition and Determinant and Attributes.

Unit 3 Motivation : meaning, concept and definition.Needs., Maslows hierarchy of needs, Herzbergs two factors theory. ERG theory.

Unit 4 Foundation of Group Behavior: Defining and Classifying groups, group structure and process, Group Behaviors process of group formation, Group decision making.

Unit 5 Leadership : Meaning, definition and Trait theories, behavioral theories- ohio state studies, Michigan Studies And managerial grids; contingency theories, situational theories.

Unit 6 Stress Management: Stress Management potential sources, consequences and coping strategies for stress .

Unit 7 Managing Change: Organizational Change: Meaning, definition & Types of organizational change. How to overcome the Resistance to Change, Kurt Lewins- Three step model.

Reference books:

Human Resource Management : Gary Dessler,Pearson Education
Managing Human Resources : David B Balkin, Pearson Education
Organization Behavior by stephen robbins PHI
Organization behavior by Fred Luthans, PHI

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES
DEVI AHILYA UNIVERSITY, INDORE

MCA (6 Years)

VI SEMESTER

2018 – 2019

Sub. Code	Sub. Name	L	T	P	C
IC-601	Computer Graphics	3	1	0	4
IC-602	Human Computer Interface	3	1	0	4
IC-603	UNIX Operating System	3	1	0	4
IC-604	System Analysis & Design	3	1	0	4
IC-605	Project	3	1	0	4
IC-606	Unix And Shell Programming Lab	0	0	4	2
IC-607	Computer Graphics Lab	0	0	4	2
	Comprehensive Viva	0	0	0	4
					28

IC-601
COMPUTER GRAPHICS

Course Outcomes:

CO1: The goal of this course is to provide an introduction to the theory and practice of computer Graphics.
CO2: Understanding the basic concepts of Graphics.
CO3: Study of different algorithm of graphics.
CO4: Implementation of rotation, clipping, transformation algorithm etc.

Course Contents:

Unit -I

Introduction and need of computer graphics: Definition of Computer Graphics, Broad Areas of Computer Graphics (Generative Graphics, Cognitive Graphics, Image Processing), Application of Computer Graphics.

Block diagram of computer graphics systems: Necessary hardware requirements for Computer Graphics systems. **Graphics display devices:** CRT, Color CRT, Direct View Storage Comparison between them.**Flat panel devices:** Plasma, LCD, LED, Comparison between these technologies.

Basic concepts and terminologies of computer graphics: Pixel, Frame Buffer, Refresh rate, Persistence, Aspect Ratio, Numerical problems.**Block diagram of raster scan and random scan system:** Vectored Graphics, Graphics Card, Video Controller, Graphics Processing Units GPUs. CPU v/s GPU.**Input devices:** Scanners, Handheld, BarCode Reader(s), Mouse, Keyboard.**Output devices:** Hard Copy devices: Printer, Plotter(s). Bio metric input/output devices.

Unit -II

Output primitives: Development and implementation of algorithms for basic graphics output. Point plotting, Line drawing (using Cartesian equations, Parametric equations, Digital Differential Analyzer DDA, Bresenham's algorithm with all cases), Circle and ellipse drawing algorithms, Numerical problems.

Polygon(s)representation: Definition ,types (Convex and Concave), Inside Outside Test with (4 and 8 Connected Points) ,Filling of Polygon , Circle and ellipse.

Unit -III

2DTransformation: Mathematical Background of Transformation, Homogeneous co ordinates Derivations of Transformations (Translation, Reflection, Rotation, Scaling, Shearing, Reflection about arbitrary line $y = m x + c$), Related numerical problems and Programs.

3DTransformation: Mathematical Background of Transformation, Derivations of Transformations (Translation, Reflection, Rotation, Scaling, Shearing, Reflection, Projections), related numerical problems and Programs.

Segmentation: (Refer chapter5, from book *Computer Graphics by Steven Harrington*) Display files, segment table, creating, closing, renaming, and deletion of segments.

Unit-IV

Introduction to windowing: Definitions of world coordinate system, normalized device coordinates, viewport coordinate systems, 2Dviewing transformation, Window to viewport transformation.

Introduction to clipping: (Point, line, Polygon, Curve, Text clipping), Algorithm for point and line clipping ,Cohen Sutherland line clipping, Parametric LiangBarsky line clipping algorithm, Polygon clipping, Sutherland Hodgeman Algorithm.

Unit-V

Introduction to design of curves: Parametric equations of curve, interpolation and approximation approach for curve representation, Piecewise curves, Splines, Cubic Splines, zeroorder, Firstorder,second order,parametric and geometric Continuity, Bezier curves, Bezier surfaces, BSpline curves and their properties.

Hidden Surface and Back face Detection: Depth Buffer algorithm, Painters algorithm.

Books:

1. Computer Graphics by D Hearn and P M Baker, Printice Hall of India (Indian Edition).
2. Computer Graphics (Principles and Practice) by Foley, van Dam, Feiner and Hughes, Addisen Wesley (Indian Edition).
3. Computer Graphics by Atul P. Godse and Deepali A. Godse, Technical Publications
4. Computer Graphics by Steven Harrington published by McGrawHill
5.Computer Graphics by Zhigang Xiang and Roy Plastock, Schaum's outline, Second Edition

IC-602

HUMAN COMPUTER INTERFACE

Course Outcomes:

CO1: Explain the capabilities of both humans and computers from the viewpoint of human information processing.

CO2: Describe typical human–computer interaction (HCI) models, styles, and various historic HCI paradigms.

CO3: Apply an interactive design process and universal design principles to designing HCI systems.

CO4: Describe and use HCI design principles, standards and guidelines.

CO5: Analyze and identify user models, user support, socio-organizational issues, and stakeholder requirements of HCI systems.

CO6: Discuss tasks and dialogs of relevant HCI systems based on task analysis and dialog design.

CO7: Analyze and discuss HCI issues in groupware, ubiquitous computing, virtual reality, multimedia, and Word Wide Web-related environments.

Course Contents:

UNIT - I Introduction- Importance of user Interface – definition, importance of good design. Benefits of good design. A brief history of Screen design.

UNIT - II The graphical user interface – popularity of graphics, the concept of direct manipulation, graphical system, Characteristics, Web user – Interface popularity, characteristics- Principles of user interface.

UNIT - III Design process – Human interaction with computers, importance of human characteristics human consideration, Human interaction speeds, understanding business junctions.

UNIT - IV Screen Designing : Design goals – Screen planning and purpose, organizing screen elements, ordering of screen data and content – screen navigation and flow – Visually pleasing composition – amount of information – focus and emphasis – presentation information simply and meaningfully – information retrieval on web – statistical graphics – Technological consideration in interface design.

UNIT - V Windows – New and Navigation schemes selection of window, selection of devices based and screen based controls. Components – text and messages, Icons and increases – Multimedia, colors, uses problems, choosing colors.

UNIT - VII

Software tools – Specification methods, interface – Building Tools.

Interaction Devices – Keyboard and function keys – pointing devices – speech recognition digitization and generation – image and video displays – drivers. Case Study 1- Multi-Key press Hindi Text Input Method on a Mobile Phone. Case Study 2 - GUI design for a mobile phone based Matrimonial application. Case Study 3 - Employment Information System for unorganised construction workers on a Mobile Phone.

TEXT BOOKS : 1. The essential guide to user interface design, Wilbert O Galitz, Wiley DreamaTech. 2. Designing the user interface. 3rd Edition Ben Shneidermann , Pearson Education Asia.

REFERENCES : 1. Human – Computer Interaction. ALAN DIX, JANET FINCAY, GRE GORYD, ABOWD, RUSSELL BEALG, PEARSON. 2. Interaction Design PRECE, ROGERS, SHARPS. Wiley Dreamtech, 3. User Interface Design, Soren Lauesen , Pearson Education.

IC-603

UNIX AND SHELL PROGRAMMING LAB

Course Outcomes:

CO1: The principle objective of this course is to understanding of basic concepts of operating system with special reference to UNIX operating system.
CO2: Understand UNIX as operating system.
CO3: Learn to use UNIX shell.
CO4: Learn to use UNIX commands.
CO5: Send and receive electronic mail and learn its real-world limitations
CO6: Learn File handling and shell programming.

Course Contents:

UNIT I

Introduction and familiarization: History of UNIX operating system, Architecture of Unix login and log out

UNIT II

UNIX file system: File system hierarchy: file name, attributes, access rights and their change, copying moving and removal of files.

File permission mask, /etc/passwd file, su, newgrp, chown, chgrp commands. Contents of file and file commands. Hard and Soft links, search in file system find command.

UNIT III

Filters, standard input and standard output, pipes, pipelines, simple text manipulation utilities, utilities for comparing text files. Regular expression grep, egrep, fgrep, programmable filters sed, awk. Back up of files and directories, tar, cpio, dd.

UNIT IV

UNIX shell: Basic UNIX user skill, shell as command language, interpreter, command line, shell file metacharacter, script writing, examples of script. Process, ps, shell as process, job control, signals. Vi editor

UNIT V

Shell programming concept. Shell script control statements, loops, branching, return codes, test statements, shell parameters.

Text Books:

1. Sumitabha Das, UNIX: Concepts and application.

Reference Books:

1. Maurice J. Bach, The design of the UNIX operating system.
2. Y. Kanetkar, UNIX shell programming
3. Kamran Hussain, Linux Unleashed, Tim Parker.
4. Christopher Vickery, UNIX shell programmer's Interactive Workbook.
5. Mark F. Komarinsk, Cary Colette, Linux system administration handbook.
6. Dent and Gaddis, Guide to using Linux

IC-604
SYSTEM ANALYSIS & DESIGN

Course Outcomes:

CO1: The principle objective of this course is to introduce established and evolving methodologies for the analysis, design, and development of an information system.

CO2: Understand system characteristics, project management, prototyping, and systems development life cycle phases.

CO3: Analyze a problem and design an appropriate solution using a combination of tools and techniques.

Course Contents:

UNIT- I

Overview of system analysis and design: Systems concepts, Definition, Characteristics of a system, Elements of a system, Types of System Physical or Abstract System, Open or Closed Systems, Man-Made Information Systems: Categories of Information, Formal Information Systems, Informal Information Systems.

UNIT- II

System Development Life Cycle: Recognition of need, feasibility study, Analysis, Design, Implementation, Post implementation and Maintenance, Project Termination, Prototyping.
Role of the system Analyst: Definition, Skills, Academic and Personal Qualifications, The Multifaceted Role of Analyst.

UNIT- III

System Analysis:
System Planning and the Initial Investigation: Bases of Planning in System Analysis, Dimensions of Planning, Initial Investigation, Needs Identification, Strategies for Determining Information Requirements, Problem Definition and Project Initiation, Background Analysis: Fact-Finding, Fact Analysis, Determination of Feasibility.
Structured Analysis: Introduction, Tools of Structured Analysis: Dataflow Diagrams, Data Dictionaries, Decision Tables, Decision Trees, Structured English.
Feasibility study: Introduction, Feasibility Considerations, Feasibility Study Stages, Feasibility Report, Cost/Benefit Analysis.

UNIT- IV

System design:
The Process and Stages of System Design: Introduction, The Process of Design: Logical and Physical Design, Design Methodologies: Structured Design, Form-Driven Methodology – The IPO Charts.
Input /Output and Form Design: Introduction, Input Design, Output Design, Form Design.
File Organization and Data Base Design: Introduction, File Structure, File Organization, Data Base Design, Views of Data, Data Structure.

UNIT- V

System Implementation, Post Implementation and Maintenance: Introduction, Testing objectives, System Testing, Types of System Tests, Quality Assurance: Quality Factors Specifications, Levels of Quality Assurance, Post Implementation and Maintenance, Project Scheduling, Project management.

Text Books:

1. System Analysis and Design by Elias M. Awad (GALGOTIA Publications)

Reference Books:

2. Analysis and Design of Information Systems by V. Rajaraman (PHI Publications)
3 System Analysis and Design & MIS by Anurag Jain (EXCEL BOOKS Publications)

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES
DEVI AHILYA UNIVERSITY, INDORE

MCA (6 Years)

VII SEMESTER

2018 – 2019

Sub. Code	Subject Name	Credit
IC-701	Design & Analysis of Algorithms	4
IC-702	Computer Architecture	4
IC-703	Advanced Java	4
IC-704	Operating Systems	4
IC-705	Analog Electronics	4
IC-706	Advanced Java Lab	2
IC-707	Design & Analysis of Algorithms Lab	2
	Comprehensive Viva	4
		28

IC-701
DESIGN & ANALYSIS OF ALGORITHMS

Course Outcomes:

CO1: The principle objective of this course is to introduce the classic algorithms in various domains, and techniques for designing efficient algorithms.

CO2: Learn to analyze the running time of the algorithms

CO3: Understand the application of algorithms and design techniques to solve problems.

CO4: Learn to analyze the complexities of various problems in different domains and design efficient algorithms.

CO5: Understand asymptotic notation to provide a rough classification of algorithms

CO6: Study algorithms for fundamental problems in computer science and engineering work and compare with one another.

CO7: Understand the problems for which it is unknown whether there exist efficient algorithms or even algorithm.

Course Contents:

Units 1.

Introduction to Algorithms, What is an Algorithm, Algorithm Specification, Performance analysis., Review of Data Structures, Stacks and Queues, Trees ,Graphs

Units 2.

Divide and Conquer, Genaeral Method, Binary Search, Finding the Maximum and Minimum , Merge Sort , Strassen's Matrix Multiplication ,

Units 3.

The Greedy Method , General Method , Knapsack Problem , Job Sequencing with deadlines , Minimum Cost Spanning Trees , Prim's Algorithm, Kruskal's Algorithm

Units 4.

Dynamic Programming, The General Method, Multistage Graphs, All Pairs Shortest Paths, Single Source Shortest Paths, 0/1 Knapsack, Traveling Salesperson Problem

Units 5.

Basic Traversal and Search Techniques, Techniques for Binary Trees, Techniques for Graphs , Back Tracking, The Genaral Method , The 8-Queens Problem , Sum of Sub sets , NP-Hard and NP-Complete Problems, The Basic Concepts , Non-Deterministic Algorithms , The Classes NP-Hard & NP-Complete.

RECOMMENDED BOOKS

[1] T.H. Coreman, C.E. Leiserson and R.L. Rivest, Introduction to Algorithms, Prentice Hall of India, 1990.

[2] E. Horowitz, S. Sahni, S Rajasekaran, Computer Algorithms, Galgotia Publications.

[3] Saara Base, Computer Algorithms: Introduction to Design and Analysis, Addision Wesley, 2/e, 1988.

[4] Knuth, D, The art of computer programming, Vols. 1-2-3, Addision Wesley 1968-73.

[5] A V Aho, J E Hopcroft & J D Ullman, The Design and Analysis of Computer Algorithms, Addison Wesley, 1974.

IC-702
COMPUTER ARCHITECTURE

Course Outcomes:

CO1: The principle objective of this course is to understand the concepts of design and analysis of the hardware of a computer system and its components such as control unit, arithmetic and logical (ALU) unit, input/output, and memory unit.

CO2: Learn concepts of microprogramming in the design of the central processing unit of a computer system.

CO3: Understand various ways for interconnecting I/O devices to the system.

CO4: Understand basic concepts of parallel processing.

Course Contents:

UNIT I

Introduction and vocabulary, History of computer architecture, Overview of computer organization, Difference between Computer architecture & organization, von Neumann/Turing, IBM 360 series, Moore's law, Performance measurement: IPC, CPI, MIPS, Amdahl's law, CPU performance equation, Speeding it up, Performance Mismatch & Solutions, Instruction cycle, Interrupt cycle, Bus interconnections: Types, Arbitration, PCI.

UNIT II

CPU Structure, Registers, User Visible Registers, General Purpose Registers, accumulator organization, general register organization, stack organization of CPU, High level issues in CPU design, Memory: Location, Capacity, Unit of transfer, Access method, Performance (Access, cycle, transfer rate), Physical type (semi conductor or magnetic), Physical characteristics (volatile, erasable etc.), Locality of references, Cache mapping techniques, Cache write policies, Cache initialization, External memory, RAID organization of hard disks.

UNIT III

Input/Output: Programmed I/O, Interrupt Driven I/O, Direct Memory Access. Representing information digitally, Byte Ordering: Big-Endian & Little-Endian. Instruction sets, Elements of an Instruction, Instruction Representation, Instruction types, Number of Addresses, Design Decisions [CISC/RISC], Addressing Modes, Large Register File in RISC.

Register and data flow design, data fetch and instruction fetch in indirect instruction cycle, CPU control unit, Functions of Control Unit, Micro-Operations, Micro Programmed Control and Hardwired control unit and their advantages-disadvantages.

UNIT IV

Instruction level parallelism: Pipeline design, Synchronous & Asynchronous Pipeline conflicts: Resource conflict, Data dependency, and Branch difficulties. Solutions to deal with pipelining: Hardware interlocks, operand forwarding, Delayed load, Pre fetch target instruction, Branch target buffer, Loop buffer, Branch prediction, and Delayed branch. Super scalar design; Super pipelining, and VLIW processors.

UNIT V

Parallel Processing, Flynn's classification: SISD, SIMD, MISD, MIMD. Vector processor, Array Processor, Symmetric multi processing, NUMA, Cache coherence in parallel computing.

Reference Books:

1. William Stallings, Computer Organization and Architecture: Design for performance

8th Ed., Pearson Education.
2. Rajkamal, Computer Architecture, ISP 2006, Tata McGraw HILL.
3. Andrew Tanenbaum, Structured computer organization, 4th Ed., Prentice – Hall, Upper Saddle River, NJ, 2000. (Alternate reference)
4. M. Morris Mano, Computer System Architecture, 3rd Ed., Pearson Education.
5. Kai Hwang, Computer Architecture

IC-703
ADVANCED JAVA

Course Outcomes:

CO1: The principle objective of this course is to introduce the enhanced and advanced concepts of Java.
CO2: Design and developing an understanding of the web applications of Java.
CO3: Learn Java programming language with new and enhanced versions.
CO4: Students will capable of making their own GUI, network, security, thread, Servlet and JSP based systems.
CO5: These learning will helpful for their campus based recruitment as well as in the organization.

Course Contents:

UNIT I

Collections: Collection Interfaces, Concrete Collections, the Collections Framework
Multithreading: Creating thread and running it, Multiple Thread acting on single object, Synchronization, Thread communication, Thread group, Thread priorities, Daemon Thread, Life Cycle of thread.

UNIT II

Networking: Internet Addressing,InetAddress, Factory Methods, Instance Method,TCP/IP Client Sockets, URL, URL Connection, TCP/IP Server Sockets, Datagrams
Java Database Connectivity (JDBC): Merging Data from Multiple Tables: Joining, Manipulating Databases with JDBC, Prepared Statements, Transaction Processing, Stored Procedures C

UNIT III

Servlets: Servlet Overview and Architecture, Interface Servlet and the Servlet Life Cycle, Handling HTTP get Requests, Handling HTTP post Requests, Redirecting Requests to Other Resources, Session Tracking, Cookies, Session Tracking with HttpSession.

UNIT IV

Java Server Pages (JSP): Introduction, Java Server Pages Overview, A First JavaServer Page Example, Implicit Objects, Scripting, Standard Actions, Directives, Custom Tag Libraries.

UNIT V

Remote Method Invocation: Defining the Remote Interface, Implementing the Remote Interface, Compiling and Executing the Server and the Client
Common Object Request Broker Architecture (CORBA): Technical/Architectural Overview, CORBA Basics, CORBA services
Introduction SmartPhone Application Development: Introduction to android platform, Creating application template, adding activity, intent, services to application, using Google map API.

Text Books:

- Core JAVA Volume-II- Advanced Features, 9th edition , Horstmann Cornell- Pearson.
- "Advanced Java 2 Platform HOW TO PROGRAM" by H. M.Deitel, P. J. Deitel, S. E. Santry – Prentice
- "Beginning Java™ EE 6 Platform with GlassFish 3 From Novice to Professional" by Antonio Goncalves
- Head First Servlets and JSP, Bryan Basham, O'Reilly

Reference Book/Web:

- Deitel & Deitel, JAVA How to Program, Pearson Education, Sixth Edition
- Herbert Schildt , Java : The Complete Reference, Tata McGraw- Hill, 7th Edition
- http://www.w3schools.in/java/
- http://www.tutorialspoint.com/

IC-704
OPERATING SYSTEMS

Course Outcomes:

CO1: The principle objective of this course is to make the students familiar with design of operating systems as resource manager of a computer system.
CO2: Present basic concepts of operating system architecture
CO3: Understand the concepts of processor management and memory management techniques
CO4: Study deadlock handling and inter-process communication
CO5: Study of file systems and device management.

Course Contents:

UNIT I

Introduction to Operating System:- Objectives and functions and the services provided by OS.
Evolution of operating system:- Concepts of batch processing, multiprogrammed batched system, time-sharing systems, Parallel Systems, Distributed systems. Operating system structure: -System calls and system programs.

UNIT II

Process Management: -Process concept, Process states, Process scheduling , Operations on processes , Co-operating processes and IPC.
CPU scheduling: - Basic concept and scheduling criteria, Long term, short term medium term schedulers, Scheduling algorithms, Multi-Processors Scheduling, Measurement of performance of processor.

UNIT III

Process synchronization: - Critical section problem, Mutual exclusion and synchronization, Concept of semaphores, Classical IPC problems. Deadlocks: - Characterization of deadlock, Methods of handling prevention, detection and avoidance, Recovery from deadlock.

UNIT IV

Memory management:-Logical and physical address spaces, Swapping and paging, Contiguous, allocation and its drawbacks, Non-contiguous allocation. Virtual memory: - Demand paging and its need, Performance of demand paging, Page replacement and its need, Thrashing and allocation of frames.
File system interface: - File concept, access methods, Directory structure, protection and consistency. File system structure, Allocation methods, Free space management, Efficiency and performance, Coincidence, protection and sharing.

UNIT V

I/O system: - Various i/o devices, Device drivers, structure of I/O software, Transforming
I/O request of h/w operation. Secondary storage structure:- Disk structure, Disk Scheduling, Disk management, Swap space management and Disk reliability.
Note:- Case study of windows and Unix operating system is to be done as assignment.

Text Book:

1. Silberschatz , Gagne, Galvin, Operating System concept, 8th edition, WILEY.

Reference Books:

1. D. M. Dhamdhare, System Programming and operating system, Tata McGraw Hill, 3rd edition.

2. Gary Nutt, Operating Systems, 3rd edition Pearson Education.
3. Andrew S. Tanenbaum, 3rd edition Modern Operating Systems
.

IC-705
ANALOG ELECTRONICS

Course Outcomes:

CO1: The principle objective of this course is to enable students understand operational amplifiers.

CO2: Understand working of amplifiers.

CO3: Understand amplifier circuits, feedback circuits, and oscillator circuits To teach basic numerical methods required for typical engineering and business applications.

Course Contents:

UNIT I

Amplifier Circuits: Overview of BJT DC biasing techniques: Fixed bias, emitter stabilized bias, voltage divider bias.BJT Small signal analysis: Common emitter fixed bias, voltage divider bias, emitter follower.

UNIT II

Frequency Effects: Frequency response of an amplifier: Input & Output coupling capacitor, emitter and collector bypass capacitor, Miller's theorem, decibel voltage gain, cascading of stages.

UNIT III

Operational Amplifier: Differential and common mode operation, Non-inverting and inverting amplifiers: summing amplifier, integrator, and differentiator. Op-Amp specifications: DC offset parameters, frequency parameters.

UNIT IV

Feedback circuits: Concept of feedback, Feedback connection types, effect of feedback on gain and bandwidth.

UNIT V

Oscillators circuits: Operation, Phase Shift, Wein Bridge, Tunned and Crystal oscillators

Text Book:

1. Adel S. Sedra, Kenneth C. Smith, Microelectronics Circuits Theory and Applications

Reference Books:

4. Electronic Devices and Circuit theory by Robert Boylestad & Louis Nashelsky.
5. Electronic Principles by A. P Malvino.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES
DEVI AHILYA UNIVERSITY, INDORE

MCA (6 Years)

VIII SEMESTER

2018 – 2019

Code	Subject	L	T	P	C
IC-801	Computer Networks	3	1	0	4
IC-802	Theory of Computation	3	1	0	4
IC-803	Advance Database Management Systems	3	1	0	4
IC-804	Software Engineering	3	1	0	4
IC-805	Optimization Techniques	3	1	0	4
IC-806	Computer Network Lab	0	0	4	2
IC-807	Advance Database Lab	0	0	4	2
	Comprehensive Viva				4
					28

IC-801
COMPUTER NETWORKS

Course Outcomes:

CO1: The principle objective of this course is to provide a theoretical foundation of computer network and equip the students with an in-depth knowledge of fundamental techniques involved in computer network, which helps the students to understand the actual working of computer network.

CO2: Gain an understanding of the principles of operation of a wide variety of network technologies.

CO3: Develop an appreciation of how network services are developed and knowledge of their uses.

CO4: Apply knowledge of computers, software, networking technologies, and information assurance to an organization's management, operations, and requirements.

Course Contents:

UNIT I

Introduction: - Computer Network, Goals and Applications, Reference models – OSI and TCP/IP. A Comparative study. Network hardware – LAN, MAN and WAN and topologies, Network Software –protocol hierarchies, design issues for the layers, Connection Oriented and connection less services, Switching Techniques – Circuit Switching, Message switching, Packet Switching.

UNIT II

Data Link Layer :- Design Issues : Framing, Error Control, Flow Control, , Elementary Data Link Protocols, Sliding window protocol, Example Data link protocols :HDLC, SLIP and PPP.

UNIT III

MAC Sub layer :- Multiple access protocols: Aloha, CSMA Protocols, Collision-Free Protocols, Binary Exponential Back-off algorithm ,Ethernet MAC Sub layer Protocols: IEEE802.3, IEEE802.4, IEEE802.5 , High speed LANs – Fast Ethernet, FDDI, Wireless LANs, Bridges.

UNIT IV

Network Layer :- Design issues, Routing Algorithms: OptimalityPrinciple, Shortest Path Routing, Flooding, Distance Vector Routing, LinkState Routing , Hierarchical Routing, Broadcasting Routing, MulticastRouting,Congestion control algorithms,Internetworking, The Network Layer in the Internet: Internet Protocol, Internet addressing and Internet Control protocols.

UNIT V

Transport Layer :- Services, The Internet Transport Protocols : TCP and UDP,performance issues

Application layer :- DNS Name Space, Name Servers, FTP, TELNET,WWW, SNMP, HTTP, SMTP , Network Security : Cryptography,Symmetric- key Algorithms, Public- key Algorithms, Digital Signatures,E-mail Security

Reference Books:

1. A.S. Tanebaum, Computer Network (III Edition).
2. B.A. Forouzen, Data Communication and Networking (II Edition).
3. William Stalling, Data and Computer Communication.

IC-802
THEORY OF COMPUTATION

Course Outcomes:

CO1: The principle objective of this course is to make students know about the basic concepts of Computation and learn to work with mathematical abstractions of computers called a model of computation.

CO2: Understand regular expressions, which are used to specify string patterns in many contexts, from office productivity software to programming languages.

CO3: Study finite automata, another formalism mathematically equivalent to regular expressions, Finite automata are used in circuit design and in some kinds of problem- solving.

CO4: Learn Context-free grammars that used to specify programming language syntax.

CO5: Understand computability theory and decision problems.

Course Contents:

UNIT I

Formal languages: Introduction to Computation & Languages: Natural Languages, Computer Programming Langauges and Formal Languages. Language Concepts: alphabet, strings, properties of Strings, kleene closure. Properties of Formal Languages.

Grammar: Chomsky Hierarchy of grammar, languages represented by type 0,1,2,3 grammars.

UNIT II

Regular languages and finite automata-recursive definition, regular expression and corresponding languages, Pumping Lemma for non-regular languages. Finite automata, kleene's theorem, non-deterministic finite automata. Equivalence of FAs and NFAs. Minimal state finite automata, Mealy machine and Moore machine, Regular grammar and their equivalence to finite automata.

UNIT III

Context free languages Parsing, ambiguity, parse trees, parsing methods: Bottom up and top down, Simplification of grammar. Normal form of CFGs: Chomsky Normal Form and Greibach Normal Form, CKY algorithm, Closure Properties of CFLs

UNIT IV

Push Down Automata: definition, examples, deterministic PDA, non-deterministic PDA, Parsing and PDAs, PDA and Context Free Languages

UNIT V

Turing machines – models of computations, definition, Representation of Turing Machines, TMs as language acceptors, Techniques for TM construction, Church - Turing thesis, Universal Turing machines, Variants of Turing machine.

Unsolvable Decision Problems- Decidability, Decidable Languages, Undecidable Languages Halting Problem of Turing Machine.

Reference Books:

4. Hopcraft and Ullman, Introduction to Automata Theory, Languages and Computation, Narosa Publishing House.
5. K.L.P. Mishra, N. Chandrasekaran, Theory of Computer Science (Automata, Languages and Computation), Prentice Hall of India.
6. Peter Linz, An Introduction to Formal Languages and Automata, Narosa Publishing House.
7. Cohen Daniel I.A., Introdution to Computer Theory, John Weley and Sons , inc

New York
8. Martyn John C, Introduction to Languages and Theory of Computation, McGraw Hill, N.Y. (Internal Edition McGraw Hill)
9. Mandrioli Dino, Ghezzio Carlo, Theoretical Fundamentals of Computer Science, John Weley and Sons, Inc , New York.

IC-803

ADVANCED DATABASE MANAGEMENT SYSTEM

Course Outcomes:

CO1: The principle objective of this course is to learn advanced features of DBMS and build capacity to implement and maintain an efficient database system using emerging trends.

CO2: Understand the master the concepts and design with proficiency databases under the relational model.

CO3: Proficiency in the choice of DBMS platform to use for specific requirements

CO4: Developed proficient with a broad range of data management issues including data integrity and security, transaction processing and others.

CO5: Familiar with the fundamentals of distributed DBMS and object database management, data warehousing and data mining.

Course Contents:

UNIT I

Introduction with DBMS and ER Model : Advantage of DBMS approach, various view of data, data independence, schema and sub-schema, primary concepts of data models, Database languages, transaction management, Storage management Database administrator and users, overall system architecture.

Basic concepts of ER model, design issues, mapping constraint, keys, ER diagram, weak and strong entity sets, specialization and generalization, aggregation, inheritance, design of ER schema.

UNIT II

Functional Dependencies and Normalization: Domains, relations, keys, super key, candidate, primary, alternate and foreign keys, Functional dependence, Full Functional dependence, trivial dependencies, transitive dependencies, Mutual independence, closure set of dependencies, non loss decomposition, FD diagram. Introduction to normalization, first, second, third Normal forms, dependency preservation, BCNF, Multivalued dependencies and fourth normal form.

UNIT III

PL/SQL fundamentals: Variables, reserve words, identifiers, anchored data types, blocks, labels, use of DML in PL/SQL, commits, rollback, savepoint, conditional control: if, case, nullif, coalesce, iterative processing with loops: Loop basics , simple loops, while, for loop.

UNIT IV

Database Integrity, Transaction, concurrency and Recovery: Basic idea of Database Integrity, Integrity rules, assertions, integrity Constraints, triggers.

Basic concepts of Transaction, ACID properties, Transaction states, implementation of atomicity and durability, concurrent executions, Serializability, Conflict serializability, View serializability, basic idea of concurrency control, Concept of locking, types of locks, basic idea of deadlock, deadlock handling.

UNIT V

Distributed Database and Emerging Fields in DBMS: Basic idea of Distributed database, distributed data storage, data replication, data fragmentation- horizontal vertical and mixed fragmentation.

Object oriented Databases-basic idea and the model, object structure, object class, inheritance, multiple inheritance, object identity.

Data warehousing- terminology, definitions, characteristics, data mining and it's overview, Database on www, multimedia Databases- introduction, similarity based retrieval, continuous

media data, multimedia data formats, video servers.

Reference Books:

1. A Silberschatz, H.F Korth, Sudersan "Database System Concepts" , MGH Publication.
2. Modern Database Management (5th Edition) (Hardcover) by Fred R. McFadden, Jeffrey A. Hoffer, Mary B. Prescott
3. Elmasri & Navathe "Fundamentals of Database systems" – III ed.
4. B.C. Desai. "An introduction to Database systems" BPB.

IC-804
SOFTWARE ENGINEERING

Course Outcomes:

CO1: The principle objective of this course is to understanding in the discipline of software engineering and its application for the development of and management of software systems.
CO2: Understand the various activities undertaken for a software development project.
CO3: Develop and write a software project proposal
CO4: Develop and write a Software Requirements Specification and design document.
CO5: Learn to work within a team and understand team dynamics
CO6: Be able to effectively communicate the work (Presentation skills)

Course Contents:

UNIT I

Introduction to Software Engineering: Software problem, Software engineering problem, Software engineering approach, Software characteristics and Applications.

Software Processes: Software processes and its components, characteristics of software processes, Software development processes: Linear Sequential model, Prototyping model, RAD model, Iterative Enhancement model, Spiral model, Component based development, Comparative study of various development models

UNIT II

Project management process: The people, product, process and project, Phases of project management process, the W5HH principle. Software configuration management process, Process management process: Capability Maturity Model (CMM).

UNIT III

Software Requirement Analysis and Specification: Software requirements, Problem analysis, Requirements specifications, Validation and Verification, Metrics.

Project Planning: Project estimation (Size & Cost), Project Scheduling, Staffing and personnel planning, Software configuration management plans, Quality assurance plans, Project monitoring plans, Risk management.

UNIT IV

Software Design: Design principles: Problem partitioning and hierarchy, Abstraction, Modularity, Top-down and Bottom-up strategies. Effective Modular design: functional independency, Cohesion, Coupling. Structured design methodology.

UNIT V

Software Quality Assurance: Quality concept, Quality management system, movements and assurance, Software reviews: formal and technical, Formal approaches to SQA, Statistical software quality assurance, Software reliability, ISO 9000, SQA plan.

Software Testing: Software testing techniques: Testing fundamentals, White box testing, Black box testing, testing for specialized environments, architectures and applications. Software testing strategies: A strategic approach to software testing, Strategic issues, Unit testing, Integration testing, Validation testing and system testing, the art of debugging

Reference Books:

1. Dr. Ugrasen Suman, Software Engineering: Concepts and Practices, Published by Cengage Learning.
2. Ian Sommerville, Software engineering, Ninth edition Pearson
3. Pankaj Jalote, An Integrated Approach to Software Engineering, Narosa Publishing

House.
4. R. S. Pressman, Software Engineering-A practitioner's approach, Tata McGraw-Hill International Editions, New York.
5. Richard E. Fairly, Software Engineering Concepts, Tata McGraw Hill Inc. New York.
6. W. S. Jawadekar, Software Engineering: Principle & Practice, Tata McGraw-Hill, New York

IC-805
OPTIMIZATION TECHNIQUES

Course Outcomes:

CO1: The principle objective of this course is to make the students aware of organizational behavior of management-process and importance of decision-making in real life situations.
CO2: Understand different techniques of optimization, which help in analyzing the process of decision-making.
CO3: Problem formulation of optimization.
CO4: Realization of methods for optimization.
CO5: The applications of optimization.
CO6: Understand basic concepts of linear programming and Dynamic Programming.

Course Contents:

UNIT I

Organizational behavior and management. Introduction to O.R. Techniques. Models: - Meaning and classifications.

UNIT II

Linear Programming Problems (L.P.P.), Graphical solutions, Simplex algorithm, Principle of Duality, post optimality analysis. Transportation problem, Initial basic feasible solutions, MODI'S optimality analysis, Degeneracy.

UNIT III

Assignment Problem, traveling Salesmen problem, Branch and Berend techniques. Integer program: - Necessity of Integer programming, use of Branch and Berend Technology for solving Integer Programming problem.

UNIT IV

Queue-theory: - Importance of waiting-line in networking Q-models. Dynamic programming problems.

UNIT V

Theory of Games: - Introduction, pay-off matrix, Minimum-Maximum principle, Saddle-point principle of Dominance. Introduction to Inventory Analysis

Reference Books:

10. Dr. S.D. Sharma, Text Book of Operations Research.
11. N.D. Vora, Quantitative Techniques in management.
12. Kanti Swarup, P.K. Gupta and M.M. Singh , Operations Research..
13. H.A. Taha, Introduction to Operations Research.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES
DEVI AHILYA UNIVERSITY, INDORE

MCA (6 Years)

IX SEMESTER

2018 – 2019

Sub. Code	Sub. Name	Credit
IC-901	Object Oriented Analysis and Design	4
IC-902	Compiler Design	4
IC-903	Network & Information Security	4
IC-904	Artificial Intelligence	4
IC-905	Bio Informatics	4
IC-906	Project	4
IC-907	Artificial Intelligence Lab	2
	Comprehensive Viva	4
		30

IC-901
OBJECT ORIENTED ANALYSIS AND DESIGN

Course Outcomes:

CO1: The principle objective of this course is to enable the students to have a thorough understanding of the activities associated to develop projects. And establish the flow of events by making a planning that how software can be shown in its entirety prior to its implementation using Object Oriented Analysis and Design techniques.

CO2: Develop a working understanding of formal object-oriented analysis and design processes.

CO3: Develop the skills to determine which processes and OOAD techniques should be applied to a given project.

CO4: Develop an understanding of the application of OOAD practices from a software project management perspective.

Course Contents:

UNIT I

Object oriented analysis and its design. Software engineering best practices. UML: its road map. Root causes of software failure and symptoms of software failure.

UNIT II

Introduction to the Rational Unified process: Workflow and Lifecycle. Introduction to Object Orientations: problem definition, modeling, using UML modeling mechanisms and there representation.

UNIT III

Requirements Management: key concepts, problem statement, Glossary, use- case model, supplementary specification, functional and nonfunctional requirements.

UNIT IV

Analysis and design overview: architectural analysis-layers. Use case Analysis- Responsibilities, attributes and association, Architectural design.

UNIT V

Describe concurrency, Describe distribution, Use- case design, Subsystem Design, Class design, package.

Reference Books:

1. P.Kruchen, The Rational Unified Process: An Introduction, Pearson EducationAsia, 2000.
2. G. Booch. I. Jacobson, J. Raumbaugh, The Unified Modeling Language- User's Guide, Addison Wesley, 1999.
3. W.Boggs and M. Boggs, Mastering UML with Rational Rose, BPB Publications, 1999.
4. G. Booch, Object oriented Analysis and Design with Applications, Addison Wesley, 1994.
5. M.Blaha, J. Rambaugh, Object oriented modeling and design with UML, Pearson education 2nd edition, 2007.

IC-902
COMPILER DESIGN

Course Outcomes:

CO1: The principle objective of this course is to develop understanding the working of compiler in detail so as to have knowledge of whole spectrum of language processing technology.

CO2: Understand various phases of compilers theoretically as well as practically so as to have the actually feeling of its working.

CO3: Understand some aspects of computation should be covered in course as parsing is of the most important issue in compiler.

CO4: Learn the concepts of symbol table management, syntax-Directed definition and translations along with the code optimization and generation and error handling have to cover to complete the aim.

Course Contents:

UNIT I

Translators, Interpreters, assemblers, Compilers, Types of Compilers, Model of a compiler. Analysis of source program, Phases of a compiler, Cousins of the compilers.

UNIT II

Finite automata, non-deterministic and deterministic finite automata, Acceptance of strings by NDFA and DFA, Transforming NDFA to DFA, minimization/optimization of a DFA, related algorithm. Regular sets and regular expression. Obtaining regular expression from finite automata.

Lexical analyzer design, The role of Lexical Analyzer, Input Buffering, Specification of tokens, and Recognition of tokens.

UNIT III

Syntax analysis, CFG, derivation of a parse tree, elimination of left recursion Regular grammar, Right linear and left linear grammar. Parsing, Top-Down and Bottom Up parsing, general parsing strategies.

Top-down Parsing techniques: Brute-force approach, recursive descent parser and algorithms, Simple LL (1) grammar, LL (1) with null and without null rules grammars, predictive parsing.

Bottom-up parsing- Handle of a right sentential form, Shift-reduce parsers, operator precedence parsing, LR parsing.

UNIT IV

Symbol table contents Organization for block structured languages-stack symbols tables. Stack implemented hash structured symbol tables. Symbol table organization for Object Oriented Programming Languages.

Intermediates code generation, translation schemes for programming language constructs.

Code Optimization: - Definition, Local code optimization techniques, Elimination of local and global common sub Expressions, loop optimization.

UNIT V

Code Generation: - Definition, machine model, simple code generation method. Peephole optimization.

Error Handling: - Error recovery, recovery from various phase and parsing.

Text Books:

1. Alfred V. Aho, Ravi Sethi, Jeffery D. Ullman, Compilers: Principles, Techniques, and Tools, Addison Wesley Longman.

Reference Books:

1. Holub ,Compiler Design in C ,PHI
2. Jean Paul Tremblay, Paul G. Sorenson , The Theory & Practice of Compiler Writing.
3. Barrett, Bates, Gustafson, Couch , Compiler Construction Theory & Practice.

IC-903
Network & Information Security

Course Outcomes:

CO1: The principle objective of this course is to gain understanding of principles and practices of computer system security including operating system security, network security, software security and web security.

CO2: Theoretical foundation of computer network and security and equip the students with an in-depth knowledge of fundamental techniques involved in computer network and security, which helps the students to understand the actual working of computer network and security tools.

CO3: Gain an understanding of the principles of operation of a wide variety of network security technologies.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
MCA (6 years) IX SEMESTER
IC- 903Network & Information Security

Course Objectives

To gain understanding of principles and practices of computer system security including operating system security, network security, software security and web security.

Prerequisites:

Data Structures & Algorithms, Computer Networks

Course Contents

Unit I Information security and Cryptography:
Block and stream ciphers, Cryptographic hash functions, Message Authentication Codes (MAC), Public and private key systems, Message digests. Approximate strength of ciphers, Authentication, Password system. Secure design principles (Least-privilege, fail-safe defaults, complete mediation, separation of privilege), TCB and security kernel construction ,System defense against memory exploits, UNIX security and Security-Enhanced Linux (SELinux), Windows security.

Unit II Data Security Integrity, Vulnerability Exploitation:
Vulnerability auditing, penetration testing, Sandboxing ,Control flow integrity

Unit III Network and Web Security: TCP/IP security issues, DNS security issues and defenses, TLS/SSL, Network Intrusion detection and prevention systems, Firewalls, User authentication, authentication-via-secret and session management, Cross Site Scripting, Cross Site Request Forgery, SQL Injection .

Unit IV Resource Protection models, Side channel attacks, Authentication models: Authentication methods , various side channels and methods of encoding information, the tradeoffs of side-channel protection and system usability.

Unit V Trusted Computing, Legal and Ethical Issues: Cybercrime and computer crime, Intellectual property, copyright, patent, trade secret, Hacking and intrusion, Privacy, identity theft.

Text Readings

~~1. Computer Security :Art and Science(2nd version) — Author?~~ Recommend one or two text books.

References :

1. W.Stallings, "Cryptography and Network Security – Principles and Practices", Pearson Education, 2003.
2. Mann, Mitchell, Krell, "Linux System Security", 2nd Edition, Pearson Education, 2003.
3. Robert, C. Newman, "Enterprise Security", Pearson Education, 2003.
4. Kaufman, Perlman and Speciner, "Network Security, Private Communication in a Public Network", Prentice Hall of India, 2003.
5. Nortcutt & Judy Novak, "Network Intrusion Detection", 3rd Edition, Pearson Education, 2003.

Web Sites:

1. www.infosecuritymag.com
2. www.list.gmu.edu

6/1/18

also include data security topics as discussed.
Unit V may be revised ...

IC-904
ARTIFICIAL INTELLIGENCE

Course Outcomes:

CO1: The principle objective of this course is to familiarize students with techniques of representing knowledge required to build intelligent machines capable of taking decision like human beings.
CO2: Understand techniques of solving problems that need human intelligence.
CO3: Understand to formulate Artificial Intelligence problems
CO4: Heuristic techniques to solve the AI problem.

Course Contents:

Unit-I

Introduction to AI & Problem Solving in AI:
What is AI, AI Techniques, Defining the Problem in AI, Problem Spaces, Problem Characteristics, Production System and its Characteristics.

Unit-II

Heuristic Search Techniques: Heuristic Search, Criteria for Success, various search techniques-Generate and Test, Depth and Breadth First, Hill Climbing , Best first Search, A* algorithm.

Unit-III

Knowledge Representation and Issues: Types of Knowledge, Representation and mapping, approaches and issues in knowledge representation, Predicate Logic- representation of simple facts, computable functions, resolution, logic programming, matching, control knowledge.

Unit-IV

Prolog Programming:
Introduction and applications, facts, objects and predicates, Linguistic variables, Rules, input-output operations, controlling execution: Recursion, fail; Arithmetic operations, List, dynamic databases; expert system design.

Unit-V

Knowledge Representation Techniques and Advanced AI: Slot and filler structure – introduction, weak and strong structure, semantic nets, frames, conceptual dependency and Frames; fuzzy logic and robotics, Expert system-concept and design.

Reference Books:-

1. Artificial Intelligence: Elaine Rich and Kevin Knight (TMH publication)
2. Introduction to AI and expert systems: D.W. Patterson (PHI publication)
3. Essential References: Artificial Intelligence: Petric Henry Winston (Addison-Wesley)
4. N.J.Nilson: Principles of Artificial Intelligence, Narosa Publications.
5. Introduction to Turbo Prolog: Carl Townsand(BPB publication)

IC-905
BIO-INFORMATICS

Course Outcomes:

CO1: This course provides an introduction to the analysis of biological data using computational methods, as well as investigating problems in molecular and biology from a computational perspective.

CO2: Develop an understanding of the basic principles of molecular and cell biology.

CO3: Become familiar with existing tools and resources for computational analysis of biological data, including sequences, phylogenies, microarrays, ontologies, and bio- molecular interactions.

CO4: Understand basic abstractions and computational approaches used for analysis including data warehouses, data mining, programming languages.

Course Contents:

UNIT I

What is bioinformatics? Definitions and concepts, Objectives/goals of Bioinformatics, Importance of Bioinformatics , Genome projects, DNA, RNA,DNA fingerprinting , types of RNA, functions of mRNA, tRNA, and rRNA, Amino Acids, Proteins, Central Dogma of Molecular Biology, Gene Coding,& Expression ,Genetic disorder , cloning.

UNIT II

Molecular Biology, RNA, DNA , Protein structure, DNA Sequencing, Base Pairs,Mutations and its type, Sequence Alignment, Dot plots, Simple Alignment. Scoring Matrices. Algorithms Pair wise sequence alignment - NEEDLEMAN and Wunsch, Smith Waterman algorithms; Multiple sequence alignments - CLUSTAL, PRAS; Patterns, motifs and Profiles in sequences.

UNIT III

Biological Databanks, Data Mining, Data warehousing, data capture, data analysis; Introduction to Nucleic Acid and Protein Sequence Data banks; Nucleic acid sequence data banks: Genbank, EMBL nucleotide sequence data bank, Protein sequence data banks: NBRF-PIR, SWISSPROT, Signal peptide data bank; Database Similarity Searches: BLAST, FASTA, PSI-BLAST algorithms.

UNIT IV

Programming Languages, Programming in C: Pointers, pointers to functions, macro and programming in C, graphs, data structure– linked list, stack, queue, binary trees, threaded binary trees, File and exception handling in C.

PERL: Strings, Numbers, and Variables. Variable Interpolation, Basic Input and Output, File handles, Making Decisions, Conditional Blocks, Loops, Combining Loops with Input, Standard Input and Output, Finding the Length of a Sequence File, Pattern Matching, Extracting Patterns, Arrays, Arrays and Lists, Split and Join, Hashes, A Real-World Example, BioPERL; Applications.

UNIT V

Bioinformatics medicine, Preventative medicine , Gene therapy ,Drug development | Alternative energy sources, personalized medicine, crop improvement, forensics analysis, Biotechnology etc. Machine learning overview, Neural networks, , Phylogenetic trees

Reference Books:

1. Pierre Baldi and Søren Brunak, Bioinformatics, The Machine Learning Approach, second edition, MIT Press, Cambridge, MA, 2001.
2. Dan E. Krane, Michael L. Raymer , Fundamental Concepts of Bioinformatics.

3. James Tisdall, Beginning Perl for Bioinformatics.
4. Cynthia Gibas, Per Jambeck , Developing Bioinformatics Computer Skills.
5. Arthur M. Lesk , Database Annotation in Molecular Biology: Principles and Practice.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES
DEVI AHILYA UNIVERSITY, INDORE

M.C.A. (6 Years)

X SEMESTER

2018 – 2019

Sub. Code	Sub. Name	Credit
IC-1001	Data Mining and Warehousing	4
IC-1002	Parallel Processing & Distributed Computing	4
IC-1003	Enterprise Computing Technique	4
IC-1004	Managerial Economics	4
IC-1005	Elective I	4
IC-1006	Enterprise Computing Technique Lab	2
	Comprehensive Viva	4

Elective I

Multimedia Computing
Software Testing & Quality Assurance
Principal of Programming Language

IC-1001
DATA MINING AND WAREHOUSING

Course Outcomes:

CO1: The principle objective of this course is to understand data warehouses and data mining with recent trends and development and trends in the field.
CO2: Understand basic concepts of data warehousing and data mining.
CO3: On Line Analytical Processing (OLAP)
CO4: Data mining techniques and understand various algorithms.

Course Contents:

UNIT I

Data Warehouse, Evolution, Definition, Very large database, Application, Multidimensional Data Model, OLTP V/s Data Warehouse, Warehouse Schema, Data Warehouse Architecture. Data Warehouse Server, Data Warehouse Implementation, Metadata, Data Warehouse Backend Process: Data Extraction, Data Cleaning, Data Transformation, Data Reduction, Data loading and refreshing. ETL and Data warehouse, Metadata.

UNIT II

Structuring/Modeling Issues, Derived Data, Schema Design, Dimension Tables, Fact Table, Star Schema, Snowflake schema, Fact Constellation, De-normalization, Data Partitioning, Data Warehouse and Data Marts. OLAP, Strengths of OLAP, OLTP V/s OLAP, Multidimensional Data, Slicing and Dicing, Roll-up and Drill Down, OLAP queries, Successful Warehouse, Data Warehouse Pitfalls, DW and OLAP Research Issues, Tools.

UNIT III

Fundamentals of data mining, Data Mining definitions, KDD V/s Data Mining, Data Mining Functionalities, From Data Warehousing to Data Mining, DBMS V/s DM, Issues and challenges in Data Mining. Data Mining Primitives, Data Mining Query Languages. Data Mining applications-Case studies.

UNIT IV

Association rules: Methods to discover association rules. Various algorithms to discover association rules like A Priori, partition, Pincer search, Dynamic Itemset Counting Algorithm and more.

UNIT V

Classification Technique: Decision Trees, Web Mining, Web content mining, Web Structure mining, Text mining, Temporal Mining and Spatial Data Mining.

Text Books:

1. ARUN K PUJARI, Data Mining Techniques, University Press
2. JIAWEI HAN & MICHELINE KAMBER, Data Mining – Concepts and Techniques, Harcourt India

Reference Books:

1. W. H. Inmon, Building the Data Warehouse, Wiley Dreamtech India Pvt. Ltd
2. RALPH KIMBALL, The Data Warehouse Life cycle Tool kit, WILEY STUDENT EDITION

IC-1002
PARALLEL PROCESSING & DISTRIBUTED COMPUTING

Course Outcomes:

CO1: The principle objective of this course is to understand the concepts of design hardware of Parallel systems and its components.
CO2: Learn concept of parallel processing.
CO3: Understand various model of parallel computing.
CO4: Understand distributed computing systems.

Course Contents:

Unit I Introduction
Parallel Computing, Parallel Architecture, Architectural Classification Scheme, Classification Based on Grain Size, Bernstein Conditions for Detection of Parallelism, Performance Metrics for Processors

Unit II Design aspect of pipelining, ways to improve performance of pipeling, Job sequencing and collision, MAL, Advance pipelining techniques,
SIMD Architecture and Programming Principles, SIMD Parallel Algorithms, Data Mapping and memory in array processors, interconnection network for SIMD, Memory interleaving, Case studies of SIMD parallel Processors.

Unit III Multiprocessor Architectures, Study and Comparison of loosely and tightly coupled multiprocessors.
Crossbar switch, Multiport Memory Model, Memory contention and arbitration techniques, Cache coherency and bus snooping.

Unit IV Introduction to Distributed Systems
Definition, Issues, Goals, Types of distributed systems, Distributed System Models, Hardware concepts, Software Concept, Models of Middleware, Services offered by middleware, Client Server model.

Unit V Desirable Features of global Scheduling algorithm, Task assignment approach, Load balancing approach, load sharing approach, Introduction to process management, process migration, Threads, Virtualization, Code Migration.

Text Books

1. Computer Architecture and Parallel Processing – Kai Hwang and Faye A. Briggs, McGraw-Hill
2. Andrew S. Tanenbaum and Maarten Van Steen, "Distributed Systems: Principles and Paradigms, 2nd edition, Pearson Education, Inc., 2007, ISBN: 0-13-239227-5.

IC-1003
ENTERPRISE COMPUTING TECHNIQUE

Course Outcomes:

CO1: The principle objective of this course is to enable the students understand the concepts of EJB and build web-based and/or enterprise-based applications that incorporate EJB technology.
CO2: Implement business-tier functionality using EJB technology
CO3: Learn the concepts and implementation of RMI and JNDI
CO4: Get an overview of EJB fundamentals.
CO5: Learn the concepts and implementation of Entity and Session beans

Course Contents:

UNIT I

RMI: Object Serialization, Developing Applications with RMI, and the RMI security manager, Parameters passing in RMI.

UNIT II

JNDI: Naming services, Directory services, Benefits of JNDI, JNDI Architecture, JNDI concepts

UNIT III

Overview & EJB Fundamentals: Motivation for EJB, Component architecture, Various roles in J2EE architecture, Type of Beans, Distributed object & Middleware, Constituents of enterprise beans: Enterprise beans class, EJB Object, Home object, Local interfaces, Deployment description, Vendor specific files.

UNIT IV

Session Beans: Stateless session beans, statefull session beans, characteristics of statefull session beans, lifecycle diagram for session beans. JMS, Integrating JMS with EJB, Developing message driver beans.

UNIT V

Entity Beans: Persistence concepts, Features of entity beans, Bean managed Persistent entity beans, and Container managed persistent entity beans, Life cycle Diagrams, BMP and CMP relationships.

Text Books:

1. Ed Roman "Mastering Enterprise Java Beans", Wiley Publishing, 2005, 3rd Edition

Reference Books:

1.P G Sarang ,Kyle Gabhart Professional EJB wrox publication
2.Richard Monson-Haefel ,Bill, Burke,Enterprise java beans 3.0,5 th Ed Developing Enterprise Java Components,O'Reilly Media
2. Ahmed "Professional JAVA server programming", SPD, 2005
3. J2EE Tutorial from www.java.sun.com

IC-1004
MANAGERIAL ECONOMICS

Course Outcomes:

CO1: The principle objective of this course is to provide students with a basic understanding of the economic theory that will have application in their professional life.

CO2: Management students are expected to understand and apply the concept of economics, especially for decision making of firm, with reference to various functional area of modern management.

Course Contents:

UNIT I

Introduction - Managerial economics – Meaning, definitions, importance, Significance, scope of managerial economics. Related disciplines & managerial economics.

UNIT II

Demand concept- Demand:- Concept, Types, Function, Cardinal Utility Approach, Consumer surplus, Law of Diminishing managerial utility, Elasticity of Demand, Demand Forecasting

UNIT III

Production & Cost Analysis –Supply and Law of Supply,Production Analysis, Law of variable Proportion, Return to scale, Isoquants & least cost combination of inputs, Ridge lines and Expansion Path. Cost: - Concept & Types, Short Run and Long run cost Analysis

UNIT IV

Market Structure:- Price determination under different markets: - Perfect competition, Monopoly, Monopolistic competition, Oligopoly

UNIT V

National Income and Inflation: -National Income and its variants, Measures of national products and methods used, National Income in India. Inflation and types of Inflation, inflationary Gap, Causes and consequences of inflation, Reflation, Deflation; Trends and measurement of inflation in Indian economy. Monetary & Fiscal Policies.

Reference Books:

1. Morden micro Economics - Koutsoyiannis
2. Managerial Economics: - Peterson &Levis
3. Micro Economics – Sundaram&Vaish
4. G. Mankiw: - Macro Economics
5. Dornbusch& Fischer: - Macro Econiomics

IC-1005
MULTIMEDIA COMPUTING

Course Outcomes:

CO1: The principle objective of this course is to critically analyze and synthesize the key components of multimedia technologies including text, graphics, voice, video and animation;

CO2: evaluate the role of multimedia technologies in the online and web environment;

CO3: be able to define the characteristics of each media type and describe their application;

CO4: develop, edit and improve interactive web pages that incorporate a variety of digital media such as graphics, voice, animation and video;

CO5: critically evaluate the implications of copyright in the use of multimedia;

CO6: Research and analyze the protocols, standards and representation techniques used for storage and transmission of multimedia information.

CO7: Hands on Experience on latest development in the field of Multimedia and related fields

Course Contents:

Unit-I Multimedia: Introduction and Applications

Introduction to Multimedia, Motivation and Applications, Signals and Waves, Analog and Digital Data, Components of multimedia , Sampling and Quantization; Fundamentals of Information theory, Multimedia Authoring tools. Basics of Data Compression: - Run-length, Huffman, Arithmetic.

Unit-II Fundamentals of Image

Image Data Representation, Colour Models: RGB, YCbCr; Main Image File Formats: Bitmap Files; Halftonning, Dithering; Lossless Image Compression: Run-length Coding (pcx), Lossy Image Compression, Cosine Transform Based Coding (jpeg).

Unit-III Basics of Digital Audio

Introduction to Digital Audio, Representing Audio Data, WAV Audio Format, Audio Data Compression, MP3, MIDI concepts, Audio memory representation.

Unit-IV Basics of Video

Video: Digitization of video, Video capturing , Video transmission standards; EDTV, CCER, CIF, SIF, HDTV, Video formats: H-26I, H-263. MPEG Video compression. Video streaming. Study and analysis of video formats, compression and streaming.

Unit-V Multimedia Network Communication

Multimedia Communication and applications, Study of Multimedia networking, Quality of data transmission, Multimedia over IP, Media on Demand.

Applications: Media Entertainment, Media consumption, web-based applications, e-learning and education, Different Multimedia applications, Analysis and development of Multimedia application

Books Recommended:

[1] Ralf Steinmetz & Klara Nahrstedt, Multimedia: Computing, Communications & Applications, Pearson Education Asia
[2] Tay Vaughan, Multimedia: Making It Work, Mc-Graw hill, Osborne Media
[3] Jerry D. Gibson, Multimedia Communications, Directions and Innovations
[4] J.Jeffcoate, Multimedia in practice, Technology & Application, PHI 1995.
[5] Ze-Nian-Li, Fundamentals of Multimedia, Pearson Education
[6] S. Annadurai & R. Shanmugalakshmi, Fundamentals of Digital Image Processing Pearson Education

IC-1005

SOFTWARE TESTING AND QUALITY ASSURANCE

Course Outcomes:

CO1: The principle objective of this course is to understand software testing process, planning, strategy, criteria and testing method, as well as software quality assurance concept & control process.

CO2: Study of software testing and quality control concepts, principles, methodologies, management strategies and technique

CO3: Understand test models, test design technique (black box and white box testing techniques), testing strategies and advance testing techniques.

Course Contents:

Unit I SOFTWARE TESTING BASICS

Testing as an engineering activity, Role of process in software quality, Testing as a process, Basic definitions, Software testing principles, The tester's role in a software development organization, Origins of defects, Defect classes, The defect repository and test design, Defect examples,Developer / Tester support for developing a defect repository.

Unit II TESTING TECHNIQUES AND LEVELS OF TESTING

Using White Box Approach to Test design - Static Testing Vs. Structural Testing, Code Functional Testing, Coverage and Control Flow Graphs, Using Black Box Approaches to Test Case Design, Random Testing, Requirements based testing, Decision tables, State-based testing, Cause-effect graphing, Error guessing, Compatibility testing, Levels of Testing -Unit Testing, Integration Testing, Defect Bash Elimination. System Testing - Usability and Accessibility Testing, ConfigurationTesting, Compatibility Testing.

Unit III TESTING TECHNIQUES AND LEVELS OF TESTING

Using White Box Approach to Test design - Static Testing Vs. Structural Testing, Code Functional

Testing, Coverage and Control Flow Graphs, Using Black Box Approaches to Test Case Design, Random Testing, Requirements based testing, Decision tables, State-based testing, Cause-effect graphing, Error guessing, Compatibility testing, Levels of Testing -Unit Testing, Integration Testing, Defect Bash Elimination. System Testing - Usability and Accessibility Testing,Configuration Testing, Compatibility Testing.

Unit IV SOFTWARE TEST AUTOMATION AND QUALITY METRICS

Software Test Automation, Skills needed for Automation, Scope of Automation, Design and Architecture for Automation, Requirements for a Test Tool, Challenges in Automation Tracking the Bug, Debugging. Testing Software System Security - Six-Sigma, TQM - Complexity Metrics and Models, Quality Management Metrics, Availability Metrics, Defect Removal Effectiveness, FMEA, Quality Function Deployment, Taguchi Quality Loss Function, Cost of Quality.

Unit V FUNDAMENTALS OF SOFTWARE QUALITY ASSURANCE

SQA basics, Components of the Software Quality Assurance System, software quality in business context, planning for software quality assurance, product quality and process quality, software process models, 7 QC Tools and Modern Tools.

Unit VI QUALITY ASSURANCE MODELS and SOFTWARE QUALITY ASSURANCE TRENDS

Models for Quality Assurance, ISO-9000 series, CMM, CMMI, Test Maturity Models, SPICE, Malcolm Baldrige Model- P-CMM.Software Process- PSP and TSP, OO Methodology, Clean-

room software engineering, Defect Injection and prevention, Internal Auditing and Assessments, Inspections & Walkthroughs, Case Tools and their Affect on Software Quality.

Text Books

1. Srinivasan Desikan, Gopalaswamy Ramesh,Software Testing: Principles and Practices Pearson.
2. Daniel Galin, Software Quality Assurance: From Theory to Implementation, Pearson Addison Wesley.

Reference Books

1. Aditya P. Mathur, Foundations of Software Testing, Pearson.
2. Paul Ammann, Jeff Offutt, Introduction to Software Testing, Cambridge University Press.
3. Paul C. Jorgensen, Software Testing: A Craftsman's Approach, Auerbach Publications.
4. William Perry, Effective Methods of Software Testing, Wiley Publishing, Third Edition.
5. Renu Rajani, Pradeep Oak, Software Testing – Effective Methods, Tools and Techniques, Tata McGraw Hill.
6. Stephen Kan, Metrics and Models in Software Quality, Addison – Wesley, Second Edition.
7. S.A.Kelkar, Software quality and Testing, PHI Learing, Pvt, Ltd.
8. Watts S Humphrey, Managing the Software Process ,Pearson Education Inc.

IC- 1005

PRINCIPLES OF PROGRAMMING LANGUAGES

Course Outcomes:

CO1: The principle objective of this course is to describe syntax and semantics of programming languages data, data types, and basic statements.

CO2: Understand call-return architecture and ways of implementing them.
Understand object-orientation, concurrency, and event handling in programming
Languages develop programs in non-procedural programming paradigms.

Course Contents:

UNIT I SYNTAX AND SEMANTICS

Evolution of programming languages – describing syntax – context-free grammars – attribute grammars – describing semantics – lexical analysis – parsing – recursive-decent – bottomup parsing

UNIT II DATA, DATA TYPES, AND BASIC STATEMENTS

Names – variables – binding – type checking – scope – scope rules – lifetime and garbage collection – primitive data types – strings – array types – associative arrays – record types – union types – pointers and references – Arithmetic expressions – overloaded operators – type conversions – relational and boolean expressions – assignment statements – mixedmode assignments – control structures – selection – iterations – branching – guarded statements

UNIT III SUBPROGRAMS AND IMPLEMENTATIONS

Subprograms – design issues – local referencing – parameter passing – overloaded methods – generic methods – design issues for functions – semantics of call and return – implementing simple subprograms – stack and dynamic local variables – nested subprograms – blocks – dynamic scoping

UNIT IV OBJECT-ORIENTATION, CONCURRENCY, AND EVENT HANDLING

Object-orientation – design issues for OOP languages – implementation of object-oriented constructs – concurrency – semaphores – monitors – message passing – threads – statement level concurrency – exception handling – even handling

UNIT V FUNCTIONAL AND LOGIC PROGRAMMING LANGUAGES

Introduction to lambda calculus – fundamentals of functional programming languages – Programming with Scheme – Programming with ML – Introduction to logic and logic programming – Programming with Prolog – multi-paradigm languages

REFERENCES:

1. Robert W. Sebesta, “Concepts of Programming Languages”, Tenth Edition, Addison Wesley, 2012.

2. Michael L. Scott, “Programming Language Pragmatics”, Third Edition, Morgan Kaufmann, 2009.
3. R. Kent Dybvig, “The Scheme programming language”, Fourth Edition, MIT Press, 2009.
4. Jeffrey D. Ullman, “Elements of ML programming”, Second Edition, Prentice Hall, 1998.
5. Richard A. O'Keefe, “The craft of Prolog”, MIT Press, 2009.
6. W. F. Clocksin and C. S. Mellish, “Programming in Prolog: Using the ISO Standard”, Fifth Edition, Springer, 2003.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES
DEVI AHILYA UNIVERSITY, INDORE

M.C.A. (6 Years)

XI SEMESTER

2018 – 2019

Code	Subject	L	T	P	C
IC-1101	Wireless and Mobile Computing	3	1	0	4
IC-1102	Enterprise Resources Planning	3	1	0	4
IC-1104	Elective II	3	1	0	4
IC-1105	Research Methodology & Practices	3	1	4	6
IC-1106	Wireless and Mobile Computing Lab	0	0	4	2
	Comprehensive Viva				4
					24

Elective II

Cloud Computing
Design Patterns
Image Processing

IC-1101
MOBILE & WIRELESS COMPUTING

Course Outcomes:

CO1: The principle objective of this course is to acquire solid knowledge on mobile networks and mobile computing
CO2: acquire experience and capability to team work
CO3: select components and networks for particular application
CO4: creatively analyze mobile and wireless networks
CO5: critically analyse security issues of mobile and wireless computing systems

Course Contents:

Unit-I

Overview of the emerging field of mobile computing; Historical perspectives (mainly from the perspective of radio), Land mobile vs. Satellite vs. In-building communications systems, RF vs. IR. Characteristic of Cellular Systems, Mobility support in cellular telephone networks, Personal Communications Systems/Personal Communications Networks, Mobile applications, Limitations, Health Concerns.

Mobile communication: Fiber or wire based transmission, Wireless Transmission: Frequencies, Antennas and Signal Propagation – path loss of radio signals, Additional signal propagation effect, Multipath propagation.

Modulation Techniques, Multiplexing techniques, Coding techniques, Multiple Radio Access – Introduction Contention based protocols, Channel Allocation

Unit-II

The Cellular Concept : Introduction, Cell Area, signal strength and cell parameters, capacity of a cell, Frequency reuse, Co-channel Interference, Cell splitting, Cell Sectoring.

Mobile Communication System : Introduction, Cellular System Infrastructure, Registration, Handoff support, Multicasting, Authentication & security, frequency hopping.

Unit-III

Mobile IP, goals, assumptions requirements, entities & terminology, IP packet delivery, tunnelling and encapsulation, Feature & formate IPv6, DHCP, TCP over Wireless.

Cyclic repetition of data, Digital Audio Video Broadcasting, Multi media object transfer Protocol, Wireless LAN topologies, requirements

Physical layer, MAC layer, IEEE802.11: Protocol architecture, layers, Information bases and networking, Bluetooth.

Case Study on Wireless LAN infrastructure.

Satellite Systems: History, Application, and Basics of Satellite Systems: LEO, MEO, GEO, Routing, Handover, VSAT, installation & Configuration.

Unit-IV

Characteristic of Ad Hoc networks, Applications, need for routing, routing classification, Wireless sensor networks, classification & Fundamental of MAC protocol for wireless sensor networks.

Unit-V

Mobile operating System, file system, Process, Task, Thread, ISR and IST, CODA, HTTP versus HTML.WML, XML application for wireless handheld devices.

Mobile devices : Server & Management – Mobile Agent, Application Server, Gateways, Device Management, Mobile File Systems

Text Books:

A: Mobile Communications author Jochen Schiller, publication John Willy & Sons, Ltd.

B: Wireless And Mobile Systems author D P Agrawal & Qing-An zeng, publication Thomson.

C: Wireless Networks author P Nicopotidis, publication Addision –Wesley-An zeng publication

D: Mobile Computing author Dr. Rajkamal, publication Oxford University Press

IC-1102
ENTERPRISE RESOURCE PLANNING

Course Outcomes:

CO1: The principle objective of this course is to develop the knowledge and skills to address the challenges of successful implementation of ERP.

CO2: Learning skills of re-engineering business process to fit the ERP, risk factor associated with managing ERP systems.

CO3: Provide foundation for e-business etc.

Course Contents:

Unit I Process view of organization

Introduction to business process, Business Functional areas, Introduction to information Systems, problems of organizational functional division, Introduction of Enterprise Systems, Evolution of Enterprise applications, Technology as process enabler**,** mapping an existing organizational process, Process redesign, and new process validation.

Unit II Approaches to Business Process Re-engineering

Salient features of Re-engineering, Re-engineering initiatives, Managerial implications of process Re-engineering efforts, Kaizen, Total Quality Management, Implementing new process, Critical success factors of re-engineering projects, comparison of different re-engineering approaches,

Unit III Introduction to Enterprise Resource Planning

Reasons for the growth of ERP market, ERP packages role, Enterprise application implementation projects, Rationale for ERP, Enterprise architecture planning, Selection of an ERP vendor, Contracts with ERP vendors, consultants and employees. ERP Project Management and monitoring, Pitfalls of ERP packages, ERP implementation life cycle, Implementation methodology, organizing the implementation, Overview of ERP modules.

Unit IV ERP Supply Chain and CRM application

ERP market place **-**SAP AG, PeopleSoft, Baan, JD Edwards Oracle applications, ERP and related technologies. Overview of supply chain and demand chain, Supply chain framework, Benefits of Supply chain, advanced planning systems. Introduction to CRM applications, growth of CRM applications, Benefits of CRM applications.

Unit V ERP Package application

Detailed study of any one ERP package with emphasis on application basics, cross sectional analysis of other ERP system with the application. Package architecture, understanding of the application with current Business Process reference model. Case Studies on ERP implementation at BPCL, CRM initiative at 3M, Mobile CRM, DOW chemical e-CRM strategy, Sear Logistics Management Practices.

Text Books

1. Enterprise Resource Planning by Mary Sumner, Fifth edition, Pearson Education.
2. Enterprise Resource Planning –Alexis Leon -Tata McGraw Hill publication.

Reference Books

1. John David Patrick and M.A. Rashid- Idea Group publishing.

2. Concepts in Enterprise Resource Planning - Brady, Monk and Wagner, Thomson Learning.
3. CRM at the speed of Light .- Greenberg , Paul – TMH
4. ERP strategy – Vinod Kumar Garg , Bharat Vakharia , Jaico.
5. The E-Marketplace: Strategies for success in B2B commerce – Raisch,Warren D McGraw Hill inc.2000.

IC-1104
CLOUD COMPUTING

Course Outcomes:

CO1: The principle objective of this course is to Understand basic concepts of cloud computing, its tools and Identify appropriate applications.
CO2: Select and define appropriate technology and parameters.
CO3: Demonstrate knowledge of market based cloud computing ;
CO4: Perform the reviews of different clouds applications.

Course Contents:

Unit-I

Introduction: Historical development, Vision of Cloud Computing, Characteristics of cloud computing as per NIST, Cloud computing reference model, Cloud computing environments, Cloud services requirements, Cloud and dynamic infrastructure, Cloud Adoption and rudiments. Overview of cloud applications: ECG Analysis in the cloud, Protein structure prediction, Gene Expression Data Analysis, Satellite Image Processing, CRM and ERP, Social networking .

Unit-II

Cloud Computing Architecture: Cloud Reference Model, Types of Clouds, Cloud Interoperability & Standards, Scalability and Fault Tolerance,

Cloud Solutions: Cloud Ecosystem, Cloud Business Process Management, Cloud Service Management.

Cloud Offerings: Cloud Analytics, Testing Under Control, Virtual Desktop Infrastructure.

Unit –III

Cloud Management & Virtualization Technology: Resiliency, Provisioning, Asset management, Concepts of Map reduce, Cloud Governance, High Availability and Disaster Recovery. Virtualization: Fundamental concepts of compute ,storage, networking, desktop and application virtualization .Virtualization benefits, server virtualization, Block and file level storage virtualization Hypervisor management software, Infrastructure Requirements , Virtual LAN(VLAN) and Virtual SAN(VSAN) and their benefits.

Unit-IV

Cloud Security: Cloud Information security fundamentals, Cloud security services, Design principles, Secure Cloud Software Requirements, Policy Implementation, Cloud Computing Security Challenges, Virtualization security Management, Cloud Computing Security Architecture.

Unit-V

Market Based Management of Clouds, Federated Clouds/Inter Cloud: Characterization & Definition, Cloud Federation Stack, Third Party Cloud Services.
Case study: Google App Engine, Microsoft Azure.

Recommended Text:

1. Buyya, Selvi ," Mastering Cloud Computing ",TMH Pub
2. Kumar Saurabh, "Cloud Computing" , Wiley Pub
3. Krutz , Vines, "Cloud Security " , Wiley Pub
4. Velte, "Cloud Computing- A Practical Approach" ,TMH Pub
5. Sosinsky, " Cloud Computing" , Wiley Pub

IC-1104
DESIGN PATTERN

Course Outcomes:

CO1: The principle objective of this course is to strengthen the knowledge of Object Oriented Design and development by understanding various design patterns for object oriented reusable Software.
CO2: Understand the concept of Design patterns and its importance.
CO3: Understand the behavioral knowledge of the problem and solutions
CO4: Relate the Creational, Structural , behavioral Design patterns
CO5: Apply the suitable design patterns to refine the basic design for given context.

COURSE CONTENTS

I Review of Object Orientation
Introduction to Software Patterns, Overview of UML, Class Diagrams, Collaboration Diagrams, State chart Diagram, Deployment Diagram,

II Introduction
Introduction to design pattern, describing design pattern, design Pattern for solving problem, selection of design pattern, use of design pattern. Fundamental Design Patterns: Delegation, Interface, Abstract Super-class, Interface and Abstract class, Marker Interface.

II Creational Pattern
Simple Factory pattern, Factory Method, Abstract Factory, Builder, Prototype, Singleton

III Structural Pattern
Adaptor, Bridge, Composite, Façade, Flyweight, Decorator, Proxy Pattern

IV Behavioral Pattern I
Chain of Responsibility, Command, Interpreter, Mediator, Memento Pattern

V Behavioral Pattern II
Observer, State, Strategy, Template Method, Visitor, Iterator Pattern

Text Book

1. Gamma, Helm, Johnson, Vlissides, Design Patterns. Elements of Reusable Software., Pearson Education 2006

Reference Book

1. Cooper, J. W., Java Design Patterns, A Tutorial, Pearson Education, 2000.
2. Freeman, Freeman, Head First Design Patterns, O'Reilly Pub. 2007
3. Mark Grand, Patterns in Java Vol. 1, Wiley 2002
4. Mark Grand, Patterns in Java Vol. 2, Wiley 2002
5. Mark Grand, Patterns in Java Vol. 3, Wiley 2002

IC-1104
IMAGE PROCESSING

Course Outcomes:

CO1: The principle objective of this course is to Explain how digital images are represented and manipulated in a computer, including reading and writing from storage, and displaying.

CO2: Write a program which implements fundamental image processing algorithms.

CO3: Be conversant with the mathematical description of image processing techniques and know how to go from the equations to code.

Course Contents:

UNIT I DIGITAL IMAGE FUNDAMENTALS

Introduction – Origin – Steps in Digital Image Processing – Components – Elements of Visual Perception – Image Sensing and Acquisition – Image Sampling and Quantization – Relationships between pixels - color models

UNIT II IMAGE ENHANCEMENT

Spatial Domain: Gray level transformations – Histogram processing – Basics of Spatial Filtering–Smoothing and Sharpening Spatial Filtering – Frequency Domain: Introduction to Fourier Transform – Smoothing and Sharpening frequency domain filters – Ideal, Butterworth and Gaussian filters

UNIT III IMAGE RESTORATION AND SEGMENTATION

Noise models – Mean Filters – Order Statistics – Adaptive filters – Band reject Filters – Band pass Filters – Notch Filters – Optimum Notch Filtering – Inverse Filtering – Wiener filtering Segmentation: Detection of Discontinuities–Edge Linking and Boundary detection – Region based segmentation- Morphological processing- erosion and dilation

UNIT IV WAVELETS AND IMAGE COMPRESSION

Wavelets – Subband coding - Multiresolution expansions - Compression: Fundamentals – Image Compression models – Error Free Compression – Variable Length Coding – Bit-Plane Coding – Lossless Predictive Coding – Lossy Compression – Lossy Predictive Coding – Compression Standards

UNIT V IMAGE REPRESENTATION AND RECOGNITION

Boundary representation – Chain Code – Polygonal approximation, signature, boundary segments – Boundary description – Shape number – Fourier Descriptor, moments- Regional Descriptors –Topological feature, Texture - Patterns and Pattern classes - Recognition based on matching.

Text books:

1.Digital Image Processing and Computer Vision, Sonka, lavac, Boyle, Cenage Learning.
2.Digital Image Processing, R.C. Gonzalez, R.R. Woods(TMH)
3.Digital Image Processing And Analysis, PHI, B. Chanda, D.Datta Mujumdar.

References Books:

1.Anil Jain, "Fundamentals Of Digital Image Processing", Anil Jain PHI, ISBN-81- 203-0929-4
2.Digital Image Processing using MATLAB, R.C. Gonzalez, R.R. Woods(Person), 2nd Edition.

3. Digital Image Processing, S.Jayaraman, T. Veerakumar (Mc Graw Hill).
4.Introduction to Digital Image Processing with MATLAB, Alasdair McAndrew, Cenage Learning

IC-1105
RESEARCH METHODOLOGY &PRACTICES

Course Outcomes:

CO1: The principle objective of this course is to Understand basic concepts of research, its methodologies and Identify appropriate research topics.
CO2: Select and define appropriate research problem and parameters.
CO3: Demonstrate knowledge of research processes (reading, evaluating, and developing);
CO4: Perform literature reviews using print and online databases.

Course Contents:

Unit-1:
The Information Systems and Computing disciplines, Evidence-based practice, The Internet, and Research.
Definition and characteristics of Research, Evaluating research, Rigour, and relevance in research, The 6 P of Research, The purpose and products of research: Reasons for doing research, possible products/outcomes of the research, Finding and choosing research topics, Evaluating the purpose and products of research.

Unit-2:
Overview of the Research: A model of the research process, alternatives models of the research process, Evaluating the Research process. Need, types and applications of simulators for researching in CS.

UNIT-3:
Reviewing the literature: Purpose and resources of literature review, The internet, and literature reviews conducting a literature review Evaluating literature review Evaluating literature review. Surveys: Defining surveys, Planning and designing surveys, Grounded theory, and surveys, The internet and surveys, Examples of surveys in IS and computing research, Evaluating survey-based research. Interview, Observations, Questionnaire.

UNIT-4:
Design and Creation: Defining design and creation: planning and conducting design and creation research. Creative computing and digital art. the internet and design and creation research. Examples of designing and creation research in IS and computing, Evaluating design and creation research. Experiments, Case studies, Action Research, Ethnography, Documents.

UNIT-5:
Internet Research: Background to the internet and WWW, Internet Research topics, The internet and literature review The internet and research strategies and methods, Internet research, law and ethics. Participants and Research Ethics: The law and research, Rights of people directly involved, Responsibilities of an ethical researcher, Design, and creation of Project and ethics, Evaluating research ethics.

Text Book:
Briony J Oates, Researching information systems and computing, SAGE South Asia Edition,2007 ISBN: 978-81-7829-759-0

Reference Materials:

1. Research Design. Qualitative, Quantitative, and Mixed Methods Approaches. By John W. Creswell, Fourth Edition. SAGE Publication, 2014

2. The Craft of Research, By Wayne C. Booth, Gregory G. Colomb, Joseph M. Williams, Joseph Bizup, William T. FitzGerald, Third Edition, The University of Chicago Press, 2008

3. The Elements of Style. William Strunk Jr. and E. B. White, Fourth Edition, Pearson, 1999

4. Research Methodology By Panneerselvam R, 2nd Edition, PHI, 2014

5. Selecting Empirical Methods for Software Engineering Research, Steve Easterbrook, Janice Singer, Margaret-Anne Storey, D. Damian, Book Chapter in Guide to Advanced Empirical Software Engineering, Forrest Shull, Janice Singer, and Dag I.K. Sjøberg, Springer 2008

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES
DEVI AHILYA UNIVERSITY, INDORE

M.C.A. (6 Years)

XI SEMESTER

2018 – 2019

Semester XII

Code	Subject	L	T	P	C
IC-1201	Project				24

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES

DEVI AHILYA UNIVERSITY, INDORE

M. Tech.(IT) 5 Years

Batch 2k18

Semester -I

JULY-DECEMBER 2018

Code	Subject	L	T	P	C
IT-101A	Mathematics	3	1	0	**4**
IT-106A	Communication Skills	3	1	0	**4**
IT-103A	Physics	3	1	0	**4**
IT-104	C Programming	3	1	0	**4**
IT-105	PC Software	3	1	0	**4**
IT-107C	C programming Lab	0	0	4	**2**
IT-107D	PC Software lab	0	0	4	**2**
IT-108	Comprehensive Viva	0	0	0	**4**
				Total	**28**

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES

DEVI AHILYA UNIVERSITY, INDORE

M. Tech.(IT) 5 Years

Batch 2k18

Semester -II

JANUARY-JUNE 2019

Sub. Code	Subject Name	L	T	P	C
IT-201	Chemistry and Environment Sciences	**3**	**1**	**0**	**4**
IT-202	Probability and Statistical Methods	**3**	**1**	**0**	**4**
IT-203	Digital Computer Organization	**3**	**1**	**0**	**4**
IT-204	Basic Electronics	**3**	**1**	**0**	**4**
IT-206B	Programming with C++	**3**	**1**	**0**	**4**
IT-207B	C++ Programming Lab	**0**	**0**	**4**	**2**
IT-210C	Basic Electronics Lab	**0**	**0**	**4**	**2**
IT-208	Comprehensive Viva	**0**	**0**	**4**	**4**
				Total	**28**

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES

DEVI AHILYA UNIVERSITY, INDORE

M. Tech.(IT) 5 Years

Batch 2k18

Semester -III

JULY-DECEMBER 2019

Sub. Code	Subject Name	L	T	P	C
IT-311	Linear Algebra	3	1	0	**4**
IT-301A	French	3	1	0	**4**
IT-304	Digital Electronics	3	1	0	**4**
IT-302B	DS with C++	3	1	0	**4**
IT-306	Engineering Drawing	3	1	0	**4**
IT-308D	Digital Elex. Lab	0	0	4	**2**
IT-307B	DS Lab	0	0	4	**2**
IT-309	Comprehensive Viva	0	0	0	**4**
					28

M. Tech. (IT) 5 Years

IV SEMESTER

Batch 2k18

JANUARY – MAY 2020

Sub Code	Subject Name	L	T	P	C
IT-401B	IT Act & Cyber Law	3	1	0	**4**
IT-402A	Numerical Analysis & Design	3	1	0	**4**
IT-403B	Data Base Management System	3	1	0	**4**
IT-409	Data & Computer Communication	3	1	0	**4**
IT-405A	UNIX Operating System	3	1	0	**4**
IT-407B	Data Base Management System Lab	0	0	4	**2**
IT-407D	UNIX Operating System Lab	0	0	4	**2**
	Comprehensive Viva	0	0	0	**4**
					28

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES

DEVI AHILYA UNIVERSITY, INDORE

M. Tech.(IT) 5 Years

Batch 2k18

Semester -V

JULY-DECEMBER 2020

Sub. Code	Sub. Name	L	T	P	C
IT-501C	Computer Architecture	3	1	0	**4**
IT-502A	Microprocessor and Assembly Language	3	1	0	**4**
IT-505B	Programming in Java	3	1	0	**4**
IT-511	System Analysis and Design	3	1	0	**4**
IT-512	Discrete Structures	3	1	0	**4**
IT-507C	Programming in Java Lab	0	0	4	**2**
IT-508E	Microprocessor and Assembly Language Lab	0	0	4	**2**
IT-509	Comprehensive Viva	0	0	0	**4**
					28

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES

DEVI AHILYA UNIVERSITY, INDORE

M. Tech.(IT) 5 Years

Batch 2k18

Semester -VI

JANUARY-MAY 2021

Sub. Code	Sub. Name	L	T	P	C
IT-601A	Computer Network and Security	3	1	0	**4**
IT-612	System Programming	3	1	0	**4**
IT-610	Advanced Java	3	1	0	**4**
IT-603A	Web Technology	3	1	0	**4**
IT-605A	Analysis and Design of Algorithms	3	1	0	**4**
IT-609A	Advanced Java Lab	0	0	4	**2**
IT-608E	Web Technology Lab	0	0	4	**2**
IT-607	Comprehensive Viva	0	0	0	**4**
					28

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES

DEVI AHILYA UNIVERSITY, INDORE

M. Tech.(IT) 5 Years

Batch 2k18

Semester -VII

JULY-DECEMBER 2021

Sub. Code	Subject Name	L	T	P	C
IT-711	Advanced Database Management System	**3**	**1**	**0**	**4**
IT-702A	Theory Of Computation	**3**	**1**	**0**	**4**
IT-712	Computer Graphics and Multimedia	**3**	**1**	**0**	**4**
IT-705	Operating System	**3**	**1**	**0**	**4**
IT-709A	Computer Graphics and Multimedia Lab	**0**	**0**	**4**	**2**
IT-710	Project	**0**	**0**	**4**	**4**
IT-707	Comprehensive Viva	**0**	**0**	**4**	**4**
				Total	**26**

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES

DEVI AHILYA UNIVERSITY, INDORE

M. Tech.(IT) 5 Years

Batch 2k18

Semester -VIII

JANUARY-MAY 2022

Sub. Code	Sub. Name	L	T	P	C
IT-801B	Principles of Programming Language	3	1	0	4
IT-804B	Mobile and Wireless Computing	3	1	0	4
IT-803B	Artificial Intelligence	3	1	0	4
IT-802A	Software Engineering	3	1	0	4
IT-805A	Cloud Computing	3	1	0	4
	Elective –I 1.IT-808: Bio Informatics 2. IT-809: Image Processing 3. IT-810: Simulation and Modelling 4.IT-811A:Information Security 5.IT-812 :Real Time System	3	1	0	4
IT-807	Comprehensive Viva	0	0	0	4
					28

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES

DEVI AHILYA UNIVERSITY, INDORE

M. Tech.(IT) 5 Years

Batch 2k18

Semester -IX

JULY-DECEMBER 2022

Sub. Code	Sub. Name	L	T	P	C
IT-901B	Data Mining and Warehousing	3	1	0	4
IT-908A	Object Oriented Analysis and Design	3	1	0	4
IT-902B	IT Project Management	3	1	0	4
IT-903B	Research Methodology	2	0	0	2
	Elective –II 1.IT-913A:Optimization Techniques 2.IT-914:Parallel Processing 3.IT-915:Information Extraction 4,IT-916:Design Patterns 5.IT-917:Distributed System	3	1	0	4
IT-912	Object Oriented Analysis and Design Lab	0	0	4	2
IT-906	Project Phase 1	0	0	4	4
IT-907	Comprehensive Viva	0	0	0	4
					28

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES

DEVI AHILYA UNIVERSITY, INDORE

M. Tech.(IT) 5 Years

Batch 2k18

Semester -X

JANUARY-MAY 2023

Sub. Code	Sub. Name	Credit
IT-1005D	Project Phase 2	12

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES

DEVI AHILYA UNIVERSITY, INDORE

M. Tech.(IT) 5 Years

Batch 2k18

Semester -I

JULY-DECEMBER 2018

Code	Subject	L	T	P	C
IT-101A	Mathematics	3	1	0	4
IT-106A	Communication Skills	3	1	0	4
IT-103A	Physics	3	1	0	4
IT-104	C Programming	3	1	0	4
IT-105	PC Software	3	1	0	4
IT-107C	C programming Lab	0	0	4	2
IT-107D	PC Software lab	0	0	4	2
IT-108	Comprehensive Viva	0	0	0	4
					28

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES DEVI AHILYA UNIVERSITY, INDORE
M. Tech. (IT) 5 Yrs. I SEMESTER
IT-101A: Mathematics

Course Outcomes:

CO1: Understand basic concepts of Partial differentiation, Maxima & Minima of the function, convergence and divergence of the series.
CO2: Solve mathematical problems based on the course material.
CO3: Develop mathematical skills and methods appropriate for students in the computer science.
CO4: Gain knowledge to apply mathematics in complex computer engineering problems.

Course Contents:

UNIT I

Review of the basic concepts of calculus: Introduction, concepts of function of one variable, Idea of limit, continuity and differentiability of the function.

UNIT II

Successive differentiation: Successive differentiation, Rolle's Theorem, Mean value theorem, Taylor's theorem, Taylor's and Mac Lauren series, Intermediate forms.
Application of differentiation: Tangents and normals, Curvature, Maxima and Minima of the function sketching of curves (Cartesian and polar form) Asymptotes.

UNIT III

Integration: integration of Rational, irrational, and Transcendental function, Reduction formula, Integral as the limit of the sum, summation of series.

UNIT IV

Partial Differentiation: Partial Differentiation function of several variable, limit continuity and differentiability, partial derivatives, Euler's theorem, Mean value theorem, Taylor's theorem

UNIT V

Maxima and Minima: Maxima and minima of function of two and three variables.
Convergence Divergence: Convergence and Divergence of series, Definition and various tests.

Text Books:

1. Gorakh Prasad, Integral Calculus.
2. Shanti Narayan, Differential Calculus

Reference Books:

1. H.K. Pathak, Calculus For IInd Yr.
2. R.B. Thakur, Advanced Calculus.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES DEVI AHILYA UNIVERSITY, INDORE
M. Tech. (IT) 5 Yrs. I SEMESTER
IT-106A: Communication Skills

Course Outcomes:

CO1: Understand the need to reflect upon interpersonal communication practices.
CO2: Gain knowledge of concepts, theories, and research findings in interpersonal communication.
CO3: Practice communication skills in a supportive environment.

Course Contents:

UNIT I : Fundamentals of Communication and Self Discovery :

Fundamentals of Communication: Definitions, Importance of communication, Objectives of communication, process of communication, Methods of communication, Types of communication and Barriers of communication.

Self Discovery: Introduction and Importance of knowing yourself, Process of knowing yourself, SWOT analysis: Benefits, SWOT analysis grid

UNIT II: Perception and Attitude

Perception: Introduction, Meaning, Factors, Process, Improving perception, Application in organizations.

Attitude: Introduction, Meaning, Features, Attitude and Behavior, Formation of attitude, Change of attitude, Attitude in a workplace, The power of positive attitude: Developing positive attitude, Obstacles in developing positive attitude, positive attitude and its results, Examples, Negative attitude: Staying negative, Overcoming negative attitude, Negative attitude and its results.

UNIT III: Group Discussion and Interview

Group Discussion :Meaning, Skills requires in a GD, GD etiquette, Tips of GD.

Interview : Points to be borne in mind as an interviewer or an interviewee, commonly asked questions, Dos and Don'ts. Telephonic Interview, Tips to present well in Interview.

UNIT IV: Written Communication and Effective Listening

Written Communication: Skills required in written communication, preparing project report, business correspondence writing Bibliography , Drafting E-mails.

Effective Listening : commandments of listening , types of listening, Barriers to Listening, Importance of listening skills in Business.

UNIT V: Interpersonal communication and Transactional Analysis

Interpersonal communication - Introduction and Importance of Interpersonal communication, elements and types of interpersonal communication, Transactional Analysis, Johari Window.

Text Books:

1. D. Fisher, Communication in Organizations, latest edition, Jaico Publishing House, India.
2. S. Taylor, Communication for Business, latest edition, Pearson Education.

Reference Books:

1. William V. Ruch, Business Communication, Maxwell Macmillan, New York.
2. Lani Arredono, The McGraw-Hill 36-Hour Course: Business Presentation, McGraw-Hill, New York.
3. Bill Scott, The Skills of Communication, Jaico, Bombay.
4. Ronald E. Dulek and John S. Fielden, Principles of Business Communication, McMillan, New York.
5. Effective Technical Communication by M Ashraf Rizvi
6. Business Communication by Raman & Singh
7. M.Raman and P.Singh, Business Communication, latest edition, Oxford University Press, India.
8. M. E. Guffy, Essentials of Business Communication, latest edition, Thomson Publishers.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DEVI AHILYA UNIVERSITY, INDORE
M. Tech. (IT) 5 Yrs. I SEMESTER
IT-103A: Physics

Course Outcomes:

CO1: Understand the core concepts of physics.
CO2: Apply knowledge and understanding of physics.
CO3: Develop the analytical approach to model physical phenomena.
CO4: Understand the impact of physics on society.

Course Contents:

UNIT I

Charge, coulomb's law, electric field Intensity, dipole and quadruple fields. Electric potential, flux of electric field, gauss's law and its applications, Torque on a dipole in uniform electric field, Ohm's law, Rise and decay of current is R-L and R-C circuits, decay constants, AC currents RL, RC and LC circuits, series and parallel resonant circuits, Q factor and band with, power consumed is an AC circuit .

UNIT II

Capacitors, factors affecting capacity, type of capacitors, series and parallel connection of capacitors, Dielectrics and dielectric polarization, vector and relation between D,E, &j P, capacity of capacitor when dielectric is filled partially, energy stored is a capacitor, redistribution of charge when two conductors are connected by a conductor wire.

UNIT III

Electromagnetic Induction, faraday's law, self induction and Mutual inductions Maxwell's displacement current, Maxwell's equations, ware equation satisfied by E &B plane electromagnetic waves in vacuum and is dielectric.

UNIT IV

Force on moving charge, Lorenz force and definition of B force on a conductor carrying current is a uniform magnetic field, magnetic dipole moment, angular moment and gyro-magnetic ration, Bio and Savior's law calculation of B is simple geometrical situations, Ampere's law, Lap lace and Poisson's equation

UNIT V

Motion of charged particles in electric and magnetic fields.E as an electric field,electron gun ,Linear accelerator,E as a deflecting field,CRO and sensitivity of CRO ,Transverse magnetic field :-principles of cyclotron.

Text Books:

1. Unified physics part –I R.P.Goyal

Reference Books:

1. Basic Electrical circuit Voluem-IB. L.Tharej
2. Resnick and Holiday – Physics part –II

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES,DEVI AHILYA UNIVERSITY, INDORE

M. Tech. (IT) 5 Yrs. I SEMESTER

IT-104: C Programming

Course Outcomes:

CO1: Develop the logic for the given problem.
CO2: Recognize and understand the syntax and construction of C code.
CO3: Gain experience of procedural language programming.
CO4: Know the steps involved in compiling, linking and debugging C code.
CO5: Apply all the concepts for problem solving in real life.

Course Contents:

UNIT I

Introduction to Programming Language & Problem solving Approach: Development of flow charts & Algorithms, Why Programming Language? Program development steps, Programming language classification, Translators, Program design techniques.

History of C Language, Feature of C Language, Why is C Language Popular? Structure of C Program, A Sample C Language Program. Errors, Compilation and Execution of C Programs and Exercise.

UNIT II

Useful terms of Language: Data types, The C character set, Constants, Variables, Keywords, C Instructions, Type Modifier, Storage class specifies, Storage classes in C and Exercises. Operator Expressions and Assignment Statements : Arithmetic Operators, Relational and Logical Operators, Increment and decrement Operators, Assignment Operators and Expressions, Conditional Expression, Precedence and order of Evaluation and Exercises.

UNIT III

Control Structure in C : Decision Control Structures, Loop Control Structures, Conditional Statements and Exercises, break Statement, The continue Statement.

Console Input and Output: Introduction to Input/Output, Unformatted and Formatted Input/Output Function.

UNIT IV

Array : Introduction to Array, One Dimensional Array, Multidimensional Array, Initialization, Declaration, Storage and Access Mechanisms on Array and Exercises. String Manipulation: Introduction to Strings, Two Dimensional Array of characters.

Function : Introduction to Functions, Function Declaration and Prototypes, Function Definition, Call by Value and Call by Reference, return statement, exit() function, Function with arguments, Calling Function with Array, Command Line, Arguments, Recursion in Function

UNIT V

Structure : Structure Definition, Giving Values to members, Structure initialization, Comparison of Structure variables, Array of Structure, Array within Structures, Structures within Structures, Passing Structures to Functions, Why use Structure, Features and Uses of Structures. Union : Union Definition and Declaration, Accessing a union Member, Union of Structures, Initialization of a Union Variable, Use of Union, Use of User Defined Type Declarations.

Text Book:

1. Y.P. Kanitkar, Let us C, B.P.B. Publication

Reference Books:

1. C -The Complete Reference, Tata Mcgraw Hill

2. Deitel & Deitel, C-How to Program.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES,
DEVI AHILYA UNIVERSITY, INDORE
M. Tech. (IT) 5 Yrs. I SEMESTER
IT-105: PC Software

Course Outcomes:

CO1: Understand basic units and model of computer.
CO2: Learn number system for data representation in computer.
CO3: Gain basic knowledge of Operating system and DBMS.
CO4: Learn working with MS Office and Internet.

Course Contents:

UNIT I

Introduction to Computer: Definition, Characteristics, functions and applications of a Computer, Components of a Computer: Hardware and Software, Block diagram of a computer: Input devices, Output devices, CPU, Memory. Classification of computer, generation of computer. Data representation and computer software: Number system-Binary,
Decimal, Octal, Hexadecimal and its conversion. Computer software: system software and application software. Computer languages: Machine, Assembly, High level and Fourth generation languages

UNIT II

Introduction to Operating System: Definition and functions of an Operating System, Type and classification of Operating Systems.. Introduction to Data Base Management System: Introduction, Quality of information, What is Database, DBMS? Why a database, DBMS? Types of DBMS

UNIT III

Microsoft office environment: Microsoft Word: Working with Word, Typing and Editing, Formatting Text, Page design and layout, adding tables, using graphs, mail merge Microsoft Excel: Working with excel, entering data, formatting, customizing workplace, calculation in worksheet, adding charts, advanced features of excel. Microsoft–PowerPoint: Working with PowerPoint, Adding Text, Including Multimedia, Customize PowerPoint, Microsoft Access: Creating database, addition and deletion of records, searching, sorting and indexing the records, creating tables and records, advance features of Access.

UNIT IV

Internet and World Wide Web: Introduction, Internet access, Internet basics, Internet protocols, Internet addressing, Web pages and HTML, Web browser and search engines, Electronic mail. Computer Security: Physical access restriction, Passwords, Firewalls, Cryptography, Computer virus, Bombs and worms. Antivirus software. MSDOS: DOS features, External and Internal Commands, Managing disks, advanced command techniques, working with batch programs. Microsoft Windows and its environment

UNIT V

Introduction to Multimedia: Introduction, Multimedia in entertainment, Multimedia in software training, Multimedia in education training, Multimedia server and databases, Multimedia tools.

1. Alexis Leon, Introduction to Computer
2. Alexis Leon, Introduction to Information Technology

Reference Books:

1. P.K.Sinha ,Fundamentals of computers .

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES,
DEVI AHILYA UNIVERSITY, INDORE
M. Tech. (IT) 5 Yrs. I SEMESTER
IT-107C 'C' programming Lab

Assignment

Simple/Basic programs

1. WAP for addition, subtraction, multiplication, division, modulo following numbers
   a. 2 or 3 integer numbers.
   b. 2 or 3 characters.
   c. 2 or 3 Real numbers.
2. Write the code for creating global (Integer, Character and Real) and local variables?
3. Write a program to exchange values of following numbers
   a. 2 or 3 (integer, real, characters) numbers using 3rd variable.
   b. 2 or 3 (integer, real, characters) numbers without 3rd variable.
4. Write a program to calculate result for following formulas :
   a. Simple interest.
   b. Compound interest.
   c. Area and circumference of circle.
   d. Area and perimeter of rectangle.
   e. Area of a rectangle
   f. Area of a triangle
   g. Convert temperature from Centigrade to Fahrenheit.
   h. WAP to convert temperature from Fahrenheit to Centigrade.
   i. Convert & print this distance of 2 cities in meter, feet, inches & centimeter.
   j. $(a+b)^2$, $(a+b)^3$, $(a-b)^2$, $(a-b)^3$
   k. Display square and cube of a number
5. Write a program to perform following operation with entered single character:
   a. Upper case and print it in lower case.
   b. Lower case and print it in upper case.

If-else

1. Write a program to perform following operation:
   a. Find out the maximum and minimum number between two numbers.
   b. Find out the maximum and minimum number between three numbers.
   c. Check whether enter number is positive, negative or zero
   d. Check whether enter number is odd or even number.
2. Any character is entered through the keyboard, WAP using conditional operator to determine whether the
   a. Character entered is a small case alphabet or not.
   b. Special symbol or not.
3. Any year is input through the keyboard. WAP to determine whether the year is leap year or not.
4. WAP while purchasing certain items, a discount of 10% is offered if the quantity purchased is more than 1000. If quantity and price per item are input through the keyboard, then to calculate the total expenses.
5. The current year and the year in which the employee joined the organization are entered through the keyboard. If the number of years for which the employee has served the organization is greater than 3 then a bonus of Rs. 2500/- is given to the employee. If the years of service are not greater than 3, then program should not do anything.
6. In a company an employee is paid as under :
   If his basic salary is less than Rs. 1500, then HRA=10% of basic salary

and DA=90% of basic salary. If his salary is either equal to or above Rs.1500, then HRA=Rs. 500 and DA=98% of basic salary. If the employee's salary is
entered through the keyboard WAP to find his gross salary.

7. The marks obtained by a student in 5 different subjects are input through the keyboard. The student gets a division as per the following rules:
    - Percentage above or equal to 60 - First Division
    - Percentage between 50 and 59 - Second Division
    - Percentage between 40 and 49 – Third Division
    - Percentage less than 40- Fail

   Write a program to calculate and print the total, percentage, division obtained by the student.
8. If the cost price and selling price of an item is input through the keyboard,
   Write a program to determine whether the seller has made profit or incurred loss. Also determine how much profit he has made or loss he incurred.

Loop

Note: Create following programs by all loops (for, while, do-while)

1. Write a program to perform following operations:
    a. Print numbers from 1 to n.
    b. Print all odd and even numbers from 1 to n.
2. Write a program to perform following operations:
    a. Add and print result from numbers from 1 to n.
    b. Add and print result of all odd and even numbers from 1 to n individually.
    c. Multiply and print result from numbers from 1 to n.
    d. Multiply and print result of all odd and even numbers from 1 to n individually.
3. Write a program to input 5 digit number and perform following operations:
    a. Print reverse of the given number
    b. Input 5 digit number and Sum of the digits of the number.
    c. Sum of the first and last digit of this number.
4. Write a program to perform following operations:
    a. Generate Fibonacci series up to given number
    b. Find a factorial of given number
    c. Find a given number is prime or not
    d. Input base and power as a number and calculate power of base number
    e. Print table of a number
    f. Print all prime number from 1 to 500
    g. Print all Armstrong numbers from 1 to 500
5. Write a program to perform following operation with matrix (size can be assumed by own).
    a. Addition of 2 matrixes
    b. Multiplication of 2 matrixes
    c. Transpose of a matrix.

6. Write a program to print following pyramids with the help of nested loops:

    a.

```
    1
  2 2 2
3 3 3 3 3
```

    b.

```
    1
  3 3 3
```

5 5 5 5 5

c.

1
2 4
3 6 9
4 8 12 16

d.

1
2 2
3 3 3
4 4 4 4
5 5 5 5 5

e.

* * * * * * * *
* * * * *
* * *
*

f.

*
* * *
* * * * *
* * * * * * *

g.

*
* *
* * *
* * * *
* * * * *

h.

*
* *
* * *
* * * *
* * * * *

i.

* * * * *
* * * *
* * *
* *
*

j.

* * * * *

* * * *

* * *

* *

*

7. Write a program to print following series till user wants:
    a. ½(x-1)/x + ½(x-1/x) ^{2} + ½ (x-1/x) ^{3}+….
    b. 1/! 1 + 2/! 2 + 3/! 3 + ……
    c. S= 1 + x + x^2+ x^3+ …. + x^n.
    d. S= 1*2 + 2*3 + 3*4 + ……..+ n * (n+1).
8. If 5 digit number is input through keyboard, then WAP to print a new number by adding one to each digit. For ex. If the input is 12391 then output should be 23402.

Switch

1. WAP to enter a character from user, check and print it is vowel or consonant.
2. Write a program to create menu for following operators :
    a. Arithmetic operator
    b. Modulo operator
    c. Relational operator
    d. Logical operator e.
    Bitwise operator
3. Design any menu to perform nested switch-case for restaurant.
4. Write a program to design a menu
    a. For week (0 for Sunday and 6 for Saturday). Take corresponding number between 0-6 and print day according to given number.
    b. For year (1 for January and 12 for December). Take corresponding number between 1-12 and print month according to given number.

String

1. Write a Program:
    a. To print the first letter of your name using special character.
    b. Input a character from user and display its ASCII number on screen.
    c. Input an ASCII value from user and display its character on screen.
2. Write a program to perform following operations with string:
    a. Find length of a string given by the user
    b. Copy one string in to another string given by the user
    c. Concatenate one string with another string given by the user
    d. Compare one string with another string given by the user
    e. Convert lower case string in to upper case letter given by user
    f. Convert upper case string in to lower case letter given by user
    g. Reverse a string given by user
    h. Count the number of occurrences of a letter in string given by user
    i. Sets all characters of a string to a given character by user
    j. Check input string is palindrome or not
    k. Input a line from the user and print number of spaces present in it.
    l. Input string from the user and count number of upper and lower alphabets in the string.

Array

Notes: You can take assumption for all array size. (Array: 1D, 2D and 3D with Integer, Float and Character)

1. Write a program to enter 10 numbers

a. Input a number and search that number in a list of 10 elements. If it is found print message "Number is found" otherwise print message "Number is not found".
b. Count and print total number of odd and even numbers in the list.
c. Count and print total number of positive, negative numbers and zeros.
d. Print sum of all odd and even numbers individually.
e. Print the sum of first and last index element.
f. Copy one array into another array.
g. Display reverse of array elements.
h. Find out total and average of all elements in array.

Function

1. A 5-digit positive integer is entered through the keyboard, write a function to calculate sum of digit of the 5-digit number :
   i. Without using recursion
   ii. Using recursion
2. Write a program to perform following operations with recursion
   i. Sum of first 25 natural numbers.
   j. Multiply of first 25 natural numbers.
   k. Factorial of a number

Pointer

Notes: Print all necessary notation of pointer.

1. WAP to implement pointer working. (Pointer pointing to single variable)
2. WAP to implement pointer to pointer concept and print all possible notation of pointer (Pointer pointing to pointer)
3. WAP to implement single pointer pointing to array (1-D, 2-D, 3-D) (scanning and printing elements by pointer).
4. WAP to implement double pointer pointing to 2-D array (scanning and printing elements by pointer).
5. WAP to implement pointer pointing to function.
6. WAP to implement pointer pointing to structure.
7. WAP to implement multiple different pointers pointing to different variable.
8. WAP to implement multiple different pointers pointing to 1-D array.
9. WAP to implement array of pointer pointing to different variables.
10. WAP to implement array of pointer pointing to 1-D and 2-D array.
11. WAP to implement void pointer pointing to all data types variables.
12. WAP to implement array of void pointer.
13. WAP to implement array of pointer to string.
14. WAP to implement pointer to an array.
15. WAP to take 1-D array size through malloc, calloc, free functions.
16. WAP to implement 2-D array size through malloc, calloc, free functions.

Structure

1. Create a structure to specify data on students given below: Roll number, Name, Department, Course, Year of joining
   Assume that there are not more than 450 students in the collage.

   (a) Write a function to print names of all students who joined in a particular year.
   (b) Write a function to print the data of a student whose roll number is given.
2. Create a structure to specify data of customers in a bank. The data to be stored is: Account number, Name, Balance in account. Assume maximum of 200 customers in the bank.
   (a) Write a function to print the Account number and name of each customer with balance below Rs. 100.
   (b) If a customer request for withdrawal or deposit, it is given in the form: Acct. no, amount, code (1 for deposit, 0 for withdrawal)

   Write a program to give a message, "The balance is insufficient for the specified withdrawal".

3. There is a structure called **employee** that holds information like employee code, name, and date of joining. Write a program to create an array of the structure and enter some data into it. Then ask the user to enter current date. Display the names of those employees whose tenure is 3 or more than 3 years according to the given current date.

4. Write a menu driven program that depicts the working of a library. The menu options should be:
    1. Add book information
    2. Display book information
    3. List all books of given author
    4. List the title of specified book
    5. List the count of books in the library
    6. List the books in the order of accession number
    7. Exit
5. Create a structure called **library** to hold accession number, title of the book, author name, price of the book, and flag indicating whether book is issued or not.

File Handling

1. There are 100 records present in a file with the following structure: struct date

```
{
int d, m, y ;
} ;
struct employee
{
int empcode[6] ;
char empname[20] ;
struct date join_date ;
float salary ;
} ;
```

Write a program to read these records, arrange them in ascending order of **join_date** and write them in to a target file.

2. A hospital keeps a file of blood donors in which each record has the format: Name: 20 Columns
   Address: 40 Columns
   Age: 2 Columns
   Blood Type: 1 Column (Type 1, 2, 3 or 4)
3. Write a program to read the file and print a list of all blood donors whose age is below 25 and blood is type 2.
   Given a list of names of students in a class, write a program to store the names in a file on disk. Make a provision to display the $\mathbf{n}^{th}$ name in the list (**n** is data to be read) and to display all names starting with S.
4. In a small firm employee numbers are given in serial numerical order, that is 1, 2, 3, etc.
   - Create a file of employee data with following information: employee number, name, sex, gross salary.
   - If more employees join, append their data to the file.
   - If an employee with serial number 25 (say) leaves, delete the record by making gross salary 0.
   - If some employee's gross salary increases, retrieve the record and update the salary.

   Write a program to implement the above operations.
5. Write a program to read a list of words, sort the words in alphabetical order and display them one word per line. Also give the total number of words in the list. Output format should be: Total Number of words in the list is _____
   Alphabetical listing of words is:

   Assume the end of the list is indicated by **ZZZZZZ** and there are maximum in 25 words in the Text file.
6. Write a C program to read a large text file 'NOTES.TXT' and print it on the printer in cut-sheets, introducing page breaks at the end of every 50 lines and a pause message on the screen at the end of every page for the user to change the paper.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES,
DEVI AHILYA UNIVERSITY, INDORE
M. Tech. (IT) 5 Yrs. I SEMESTER
IT-107D: PC Software Lab
Assignments

Assignment-1

Excel Spreadsheets

1.Introduction
Exercise 1.1 – Creating a Spreadsheet
Exercise 1.2 – Changing the look and style
Exercise 1.3 – Adding Formulae
Exercise 1.4 – Adding a Row to a Spreadsheet
Exercise 1.5 – Making a Graph of the Data
Exercise 1.6 – Multiple Sheets
Exercise 1.7 – Dynamic Linking
More Advanced Excel Functions

2. Advanced Word Techniques
Exercise 2.1 – Building a Word Template
Exercise 2.2 – Updating Normal.dot
Exercise 2.3 – Inserting a Table of Contents
Exercise 2.4 – Inserting Cross-References

3.Composite Documents
Exercise 3.1 – Producing a Spreadsheet
Exercise 3.2 – Making a Graph of the Data
Exercise 3.3 – Making a Drawing
Exercise 3.4 – Adding a Picture to the Document Exercise 3.5 – Adding a Table to the Document Exercise 3.6 – Adding a Graph to the Document Exercise 3.7 – Adding an Object

Assignment -2
Ms-Power point presentation

Assignment 1

1. Add new slides at least 75% of the time
2. Enter and edit text in a slide at least 75% of the time
3. Insert a Text Box at least 75% of the time
4. Format the fill and border of a Text Box
5. Change text direction and Text alignments in Text boxes
6. Format text size, font face, color, and bold at least 75% of the time
7. Format Slide background

1. The Learner will be able to:
2. Insert and Format Slide Text
3. Insert Picture from Clip Art at least 75% of the time
4. Format picture using Picture Tools at least 75% of the time
5. Insert an AutoShape
6. Format AutoShape color and lifestyle at least 75% of the time
7. Group and move Objects

1. Create a new PowerPoint using a Design template

2. Insert and Format pictures from ClipArt of from Files at least 75% of the time
3. Use and modify animations at least 75% of the time
4. Add Sound to Custom Animation Effects
5. Insert slide transitions and modify the timing
6. View the Slide Show at least 75% of the time

1. Change the View to Slide Master at least 75% of the time
2. Use the Slide Master to change the text formatting at least 75% of the time
3. Add an image to the Slide Master at least 75% of the time
4. Modify the Slide Background
5. Edit the Footer
6. Close the Slide Master and Return to the Normal View at least 75% of the time
7. Add sample text and review the slide design

Assignment-3

MS-Office -Assignment

Assignment -1

1. Format text color, bold, and size at least 75% of the time
2. Insert a file INTO an existing Word document
3. Format text into columns
4. Insert a picture from Clip Art and the Design Gallery Live at least 75% of the time
5. Change text wrapping around a picture at least 75% of the time
6. Apply borders and shading to a whole page using the Format Borders and Shading command

Assignment -2

Working with Pictures

Open a blank Microsoft Word document. You can use Microsoft ClipArt, or Clips Online, to do the following practice exercises.

Insert a picture of a sun or sunset.
Use **Format->Size** to resize the picture to 1.5" wide
Use In-Line **Text Wrapping**
Next to the picture **type**: The weather is great!

Insert a picture of a camera.
Change the Text Wrapping to Tight
Resize the picture to be 2.5 inches tall
Place the picture to the bottom of the page
Insert a picture of a beach.
Format Text Wrapping to Tight
Place the picture into the center of the page
Add a thick BLUE border around the picture
Crop the picture .5 inches from the left

Save your practice document and name it: Beginning Word Practice 2<your name>

Assignment -3
Create a Letter
Example:-Below

Type the company name and address
Open a blank Microsoft Word document. Type the following information:

Indian house Academy,8923 Park dale,New Delhi, BC,V9B 4G9 , 474-5311

Select All of the text and use the Font options to format the type:
Tahoma, 12 point, bold, centered, and dark red

Select the first line of type and make it 14 point.

Insert a Picture from ClipArt
Search for a photo or cartoon of a lighthouse
Select an images and Download it.

Use one of the pictures for a company logo
Resize the picture
Center it above the Company name and address

Insert the Date and Time
Remember, the default Date and Time updates automatically. This option is not appropriate for medical or legal documents that must be date/time stamped, but is fine for this exercise.

Type a sample business letter:
Dear Mr. Chalifour,

Write in complete sentences and in paragraph form 10 things you like about Lighthouse Christian Academy.

Sincerely, Your Name

Assignment -4

4.1 Create a Resume.

Assignment -5

Dos command practical with Internal and External Com

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES

DEVI AHILYA UNIVERSITY, INDORE

M. Tech.(IT) 5 Years

Batch 2k18

Semester -II

JANUARY-JUNE 2019

Sub. Code	Subject Name	L	T	P	C
IT-201	Chemistry and Environment Sciences	**3**	**1**	**0**	**4**
IT-202	Probability and Statistical Methods	**3**	**1**	**0**	**4**
IT-203	Digital Computer Organization	**3**	**1**	**0**	**4**
IT-204	Basic Electronics	**3**	**1**	**0**	**4**
IT-206B	Programming with C++	**3**	**1**	**0**	**4**
IT-207B	C++ Programming Lab	**0**	**0**	**4**	**2**
IT-210C	Basic Electronics Lab	**0**	**0**	**4**	**2**
IT-208	Comprehensive Viva	**0**	**0**	**4**	**4**
Total					**28**

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES DEVI AHILYA UNIVERSITY, INDORE
M. Tech. (IT) 5 Years II SEMESTER
IT-201: Chemistry & Environment Science

Course Outcomes:

CO1: Gain knowledge about various polymers and uses of them.
CO2: Understand different types of pollution.
CO3: Understand society, ethics and human values.

Course Contents:
Unit –I High Polymer :

Introduction, types and classification of polymerization, Natural & Synthetic Rubber; Vulcanization of Rubber, Preparation, Properties & uses of the following- Polythene, PVC, PMMA, Teflon, Poly acrylonitrile, Nylon 6, Nylon 6:6, Terylene, Phenol formaldehyde Resin.

Unit –II Energy

Sources of Energy : Renewable & Non Renewable, Fossil fuel, Biomass, Geothermal, Hydrogen, Solar, Wind, hydal, nuclear energy

Unit –III Ecosystem

Segments of Environment : Atmosphere, hydrosphere, Lithosphere, biosphere, Cycles in Ecosystem – Water, Carbon, Nitrogen, Biodiversity: Threats and conservation.

Unit –IV Air Pollution & Sound Pollution -

Air Pollution: Air pollutants, classification, (Primary & secondary Pollutants) Adverse effects of pollutants. Causes of Air pollution chemical, Green house effect, ozone layer depletion, acid Rain.

Sound Pollution: Causes, controlling measures, effects of sound pollution

Unit –V Water Pollution & Sound Pollution -

Water Pollution– Water Pollution: Pollutants in water, adverse effects. Treatment of Domestic & Industrial water effluent.

Society, Ethics & Human values– Impact of waste on society. Solid waste management (Thermal, Plastic, Agriculture, domestic and e-waste). Ethics and moral values, ethical situations, objectives of ethics and its study. Preliminary studies regarding Environmental Protection Acts ,

Text Book:

1. “Energy Environment Ecology and Society” By Dr. Surinder Deshwal Dhanpat Rai Publication

References:

1. Harris, CE, Prichard MS, Rabin’s MJ, “Engineering Ethics”; Cengage Pub.

2. Rana SVS ; “Essentials of Ecology and Environment”; PHI Pub.

3. Raynold, GW “Ethics in information Technology”; Cengage.

4. Svakumar; Energy Environment & Ethics in society; TMH

5. AK De “Environmental Chemistry”; New Age Int. Publ.

6. BK Sharma, “Environmental Chemistry” ; Goel Publ. House.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES DEVI AHILYA UNIVERSITY, INDORE
M. Tech. (IT) 5 Years II SEMESTER
IT – 202 :- Probability and Statistical Methods

Course Outcomes:

CO1: Understand basic concepts of Probability and Statistical Methods for data analysis.
CO2: Learn Hypothesis testing.
CO3: Learn the application of different tests such as Chi-square, T & F statistic.

Course Contents:

UNIT 1

Theoretical Probability Distributions: Binomial Probability distribution, Poisson Probability distribution, Normal Probability distribution.
Estimation: Unbiased-ness, consistency, efficiency and sufficiency , minimum variance unbiased estimator , Cramer-Rao inequality and its application , Maximum Likelihood estimator.

Testing of Hypothesis, Simple and Composite hypothesis, Test of significance for Samples, Test for single proportion and for difference of proportion. Test of significance for single mean , Test of significance for difference of means.

UNIT II

Interval estimation: Confidence Interval and Confidence limits, Confidence limits for large samples.
Test of significance: Procedure for testing of Hypothesis, Test of significance for large samples, test for single proportion and for difference of proportions, Test of significance for single mean, Test of significance for difference of means.

UNIT III

Test of significance for small samples: Concept of Chi-square, t and F- statistics, Test for Chi-square distribution, to test goodness of fit, to test independence of Attributes, to test the homogeneity of correlation coefficients.
Test based on t- distribution: t-test for single mean, difference of means , paired t- test, t-test for testing significance of an observed sample correlation coefficient.

UNIT IV

Test based on F- distribution: Test for equality of population variance, Test for testing the significance of an observed multiple correlation coefficients.
Non parametric test: sign- test, median test, run test, Wilcox on signed rank test .

UNIT V

Analysis of variance and design of experiments: One -way and two- way classification with one observation per cell, Design of experiments, completely randomized design randomized block design and Latin square design.

Text Book:

1. S.C. Gupta & V.K. Kapoor : Fundamentals of Mathematical statistics, S. Chand sons.

Reference Books:

1. S.C. Gupta & V.K. Kapoor : Fundamentals of Applied statistics, S. Chand sons.
2. A.M.Gun, M.K.Gupta, B Dasgupta: An outline of statistical theory(Volume 1).
3. Kapoor and Saxena : Mathematical statistics , S. Chand and sons.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES DEVI AHILYA UNIVERSITY, INDORE
M. Tech. (IT) 5 Years II SEMESTER
IT-203: Digital Computer Organization

Course Outcomes:

CO1: Study the various functional units of CPU.
CO2: Study functioning of ALU and CU.
CO3: Understand instruction formats and addressing modes.
CO4: Understand interconnection and interfacing of various units of computer system.

Course Contents:

UNIT I

Introduction to computer organization, Von Neumann Architecture, Computer components, interconnection structures, Bus interconnection.

UNIT II

Input output organization: I/O interface, modes of transfer, Interrupt driven I/O, Priority interrupt, DMA, I/O processor, and serial communication, Synchronous, Asynchronous data transfer, strobe control, handshaking, PCI, Working mechanisms of Peripherals: Keyboard, Mouse, Scanners, Video Displays, Touch Screen panel etc.(features and principles)

UNIT III

Control Unit: Instruction word format, fetch and execution cycle, sequence of operation of control registers, control of arithmetic operations, microprogramming concepts.

UNIT IV

Memory Organization: Memory hierarchy, internal and external memory. Types of memories: ROM:
PROM, EPROM, EEPROM, RAM: SRAM, DRAM, High speed memories: Cache memory, Organization and mapping techniques, Virtual memory, secondary storage: Magnetic disk, tape, optical memory, DROM, DVD.

UNIT V

CPU Organization: General register organization, stack organization and accumulator type organization.
Instruction formats – three address instruction, two addresses, one address and zero address instructions,
Instruction set selection. Addressing modes: - Immediate, direct, indirect, register, indexed etc.

Text Books:

1. Computer Organization and architecture by William Stalling, 8th edition, Prentice Hall of India
2. Computer System Architecture by M. Morris Mano, 3rd edition, Prentice Hall of India

Reference Books:

1. Computer Organization by D A Godse and A P Godse
2. Computer Architecture and Organization by J. P. Hayes, 2nd edition, Tata McGraw-Hill
3. Structured Computer Organization by A. S. Tanenbaum, 3rd edition, Prentice Hall of India

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES DEVI AHILYA UNIVERSITY, INDORE
M. Tech. (IT) 5 Years II SEMESTER
IT-204: Basic Electronics

Course Outcomes:

CO1: Understand basic components of circuits.
CO2: Gain knowledge of the use of diodes as power supply rectifiers.
CO3: Learn the operation of transistors as switching circuits..

Course Contents:

UNIT I

Fundamental Laws and Rules- Introduction, Ohm's law, Kirchhaff's current law (KCL), Kirchhaff's voltage law (KVL), Current division rule, Voltage division rule, Source Transformation, Some more rules about sources, Duality. Star and Delta connection, Star to delta and delta to star conversion.

UNIT II

Basic Components: Circuit Symbols, Working Principle, Classification according to construction, Specification, and applications of passive components-Resistors & Color coding, Inductors, Switches, Relays (Electromagnetic), Thermistor, LDR

Capacitors: - Capacitance, Capacitor Specifications, Classification of Capacitor-Fixed (Mica, Paper, Ceramic, Plastic, Electrolytic etc), Variable capacitor (Trimmer, Padder, Gang), Stray capacitance, Area of Application. Difference between Capacitore, Inductore, and Resistor.

UNIT III

Energy Bands in Solids and Semiconductor: The nature of the atom, Atomic energy level, Electronic structure of the element, the energy band theory of Crystal,

Conductors, Semiconductors and Insulators, Classification on the basis of Band Theory, Intrinsic and Extrinsic Semiconductors, Diode.

UNIT IV

Junction Diode Characteristics:

P-N Junction-Forward and reverse bias of Diode. Concept of recombination of carriers, Temperature variation of Forward and Reverse Current through the P-N Junction. Characteristics of Forward & Reverse Bias Diode, Dynamic and Statics Resistances.

UNIT V

Special Diodes: Zener Diode, its construction and characteristics, Tunnel Diode, Varactor Diode, Schottky Diode, Step Recovery Diode, PIN Diode, Light Emitting Diode, Seven Segment Displays, Photodiode.

UNIT VI

Diode Applications: Introduction load line Analysis, Series diode configurations with DC Inputs, Parallel and Series-Parallel configurations, Half wave rectification, Full-wave rectification, Clippers and Clampers.

UNIT VII

Transistors:-Introduction, NPN and PNP Transistors, Operation on Transistor, Transistor circuit configuration, Current gain of a Transistor, Transistor Characteristics

.

Text Books:

1. Boylstad, Electronics devices and circuit theory.
2. Milliman J. Halkias C, Integrated electronics

Reference Books:

3. Malvino A.P., Electronics principal
4. B.L. Theraja, Electrical Technology
5. V.K. Mehta Principal of electronics.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES DEVI AHILYA UNIVERSITY, INDORE
M. Tech. (IT) 5 Years II SEMESTER
IT-206B: Programming with C++

Course Outcomes:

CO1: Understand object-oriented programming features in C++.
CO2: Apply these features to program design and implementation.
CO3: Learn the basic constructs and syntax of C++.
CO4: Build good quality software using object-oriented techniques.

Course Contents:
UNIT I

Principle of Object Oriented Programming, Object-Oriented Terminology, OOP Paradigm, Basic concept of OOP, Benefits of OOP, Application of OOP.
Introduction of C++: Tokens, Keywords, Identifier and constants, Operator, Data Type, Variable Manipulator, Expression and Control structure.

UNIT II
Classes and Function in C++ :

Class: Defining Classes in C++, Classes and Encapsulation, Member functions, Instantiating and Using Classes, Access specifiers, Static Class Members.
Constructor and Destructor: Use of Constructors, Multiple Constructors, Types of constructor, Using Destructors to Destroy Instances.
Function: Function Introduction, Main function, Function Prototyping, inline function, friend function.

UNIT III
Inheritance & Polymorphism: Overview of Inheritance, Defining Base and Derived Classes, Constructor and Destructor Calls, Virtual base classes, Abstract classes. Overview of Polymorphism
Operator & Function Overloading: Operator Overloading, Working with Overloaded Operator Methods, Introduction to Function overloading.

UNIT IV
Pointer and Virtual Function: Introduction of Pointer, Dynamic memory allocation, Pointers to object, this pointer, Pointers to derived classes, Virtual Functions, Pure virtual function.

UNIT V
Working with files in C++, Exceptions Handling and Templates:
Files: Standard Streams, Manipulators, Unformatted Input and Output, File Input and Output.
Exceptions: Basics of Exception handling, Exception handling mechanism.

Templates: Template Overview, Customizing a Template Method, Standard Template Library Containers.

Text Books:

1. The Complete Reference - C++, Tata Mcgraw Hill

Reference Books:

1. E. Balagurusamy, Object-Oriented Programming with C++
2. Yashwant Kanitkar, Let us C++.
3. Robert Lafore, Object Oriented Programming in Turbo C++

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES

DEVI AHILYA UNIVERSITY, INDORE

M. Tech.(IT) 5 Years

Batch 2k18

Semester -III

JULY-DECEMBER 2019

Sub. Code	Subject Name	L	T	P	C
IT-311	Linear Algebra	3	1	0	**4**
IT-301A	French	3	1	0	**4**
IT-304	Digital Electronics	3	1	0	**4**
IT-302B	DS with C++	3	1	0	**4**
IT-306	Engineering Drawing	3	1	0	**4**
IT-308D	Digital Elex. Lab	0	0	4	**2**
IT-307B	DS Lab	0	0	4	**2**
IT-309	Comprehensive Viva	0	0	0	**4**
					28

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Yrs. III SEMESTER
IT-311: Linear Algebra

Course Outcomes:

CO1: Develop the ability to solve problems using linear algebra.
CO2: Understand basic concepts of linear equations,matrix calculus and basic vectors operations.
CO3: Comprehense the use of various forms of complex numbers to solve numerical problems
CO4: Emphasize computational problems of linear Algebra
CO5: Develop abstract and critical reasoning by studying logical proofs and the Axiomatic method as applied to linear algebra

Composition Table, Revision of Group Structure, Extension of Group Structure. Ring, Integral Domain and Field structure, Detailed study of field structure Various examples of field.

Introduction of the algebraic structure for Linear space, Internal and External Compositions, Linear space. Properties of Linear Space. Sub Spaces, Criteria for sub spaces, examples of Sub-Spaces, Formation of Quotient Set, Binary Composition defines in Quotient Sets, Quotient Spaces–Examples of Quotient Space.

Linear combination of vectors over R and C, Linearly independent and dependent set of vectors over F, Concepts of Basis and Dimensions of Linear Space, Determination of Bases and Dimensions of VCF), coordinate representation of vectors over VCF).

UNIT IV

Linear Transformation, Isomorphism of linear spaces, properties, kernel of Linear transformation, Null space and range space, fundamental theorem of linear space, Homomorphism, Application of Linear transformation to theory of ordinary linear Differential equations. Matrix representation of linear transformation, Rank and Nullity of Linear transformation Eigen values and vectors of linear maps and matrices. Diagonalization of Matrices, Jordan Blocks and Applications, Inner Products – Inner product space. Norm of a vector in inner product space, Unit vectors. Schwartiz's Inequality, Triangle inequality, angle between vectors in inner product space, orthogonal vectors Distance in an inner product space.

UNIT V

Orthogonalization of bases, Orthogonal basis Ortho-normal set, Orthonormalization of basis, Gram-Schmidt's process of orthonormalization of base. Quadratic forms, Reduction of quadratic form to Canonical forms. Application, Normal form concept of rank, Index and signature of normal form. Conversion of quadratic form to normal form and determination of rank, Index and signature. Classifications of curves and sin face in 2 and 3 dim. Reduction and identification.

1. Dr. H. K. Pathak , Text Book of Linear Algebra .
2. Krishnamurthy, Linear Algebra
3. Hottman & Kunze, Linear Algebra
4. Dr. K. P. Gupta, Linear Algebra

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES DEVI AHILYA UNIVERSITY, INDORE
M.TECH (IT) 5 Years III SEMESTER
IT-310A French

Course Outcomes:

CO1: Get acquaint with a foreign language-French.
CO2: Understand vocabulary and grammar of French language.
CO3: Practical command of French, emphasizing language as means of communication.
CO4: Exposure of some aspects of France, its people and culture.
CO5: Emphasize and develop structural ,phonological and semantical linguistics skills.

Course Contents:

Unit I:A spring in Paris

Lesson 1:-Meeting
Lesson 2:-Sympathies
Lesson 3:-Tastes and preferences
Lesson 4:-Agreements and disagreements
Lesson 5:-Surprises

Unit II:Adventure in Bourgogne

Lesson 1:-Countryside house
Lesson 2:-Meals in Broussac

Unit III Grammare

Articles,Nouns Adjectives,Verbs,Interrogatives,Negatives,Conjugations,Present tense

Unit IV Communication

Introduce oneself,Invitation writing and accepting invitation,describe the person

Unit V Vocubulary:

Monuments,public places in Paris,professions,different types of houses,etc

Reference Books:
1.Apprenons le francais 2

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Yrs. III SEMESTER
IT-304: Digital Electronics

Course Outcomes:

CO1: Understand fundamental concepts and techniques in digital electronics
CO2: Understand the structure of various number systemsand its applications.
CO3: Designing various combinational and sequential circuits and its applications.
CO4: Understand TTL and CMOS circuit characteristics, followed by logic devices such as flip-flops, code converters, counters, multiplexers, and registers.

Course Contents:

UNIT I

Binary Systems and logic circuits. Decimal, Binary, Octal, Hexadecimal numbers and their inter conversions. ASCII, Gray, Excess-3, 8-4-2-1,Error detecting and BCD codes. Logic Gates. Boolean algebra. Demorgon's theorem. Binary addition and subtraction. Unsigned Binary numbers, Signed binary numbers. 2's complement representation and its arithmetic.

UNIT II

Circuit analysis and design.

Boolean laws and theorems. Sum of Product and Product of Sum simplification. Two, three and four variable karnaugh map. NAND and NOR implementation. Other two level implementation. Don't care conditions.

UNIT III

Combinational circuits.

Design procedure. Half adder, full adder, adder-subtractor circuit. Code converters. Various logic circuits. Multilevel NAND circuit. Multilevel NOR circuit. Data Processing circuits.

Multiplexers, demultiplexers, decoders and encoders. Binary parallel adder, look ahead carry generator, magnitude comparator, ROM, PROM, PLA.

UNIT IV

Sequential circuit.

Flip-flops, triggering of flip-flops. Analysis of clocked sequential circuits, state reduction and assignment, flip-flop excitation tables.

UNIT V

Registers, counters and integrated circuits.

Design of counters, registers, shift registers. Ripple counters, synchronous counters. TTL logic families.

Text Books:

1. Taub H. and Schilling D, Digital Integrated Electronics
2. Ronald J.Tocci ,Digital System:Principles and application

Reference Books:

1. M.Morris Mano , Digital Logic and Computer Design.
2. Malvino A.P. and Leach D.P, Digital Principals and Application.
3. Taub H. and Schilling D, Digital Integrated Electronics

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES,
DAVV, INDORE
M. Tech. (IT) 5 Yrs. III SEMESTER
IT-302B: Data Structures with C++

Course Outcomes:

CO1: Understand data structures such as linear lists, stacks, queues. Data structure and algorithms design method for a specified application.
CO2: Write data structures programs using object-oriented design principles.
CO3: Be familiar with advanced data structures such as balanced tree, search tree, priority queues and graphs.
CO4: Get a good understanding of sorting and searching techniques.

Course Contents:

UNIT I

Introduction to Data Structure: Introduction to C++, Definition of data st data types. Static and Dynamic implementations. Examples and real lif Structures: Arrays, Address calculation in a single and multi dimens matrices

UNIT II

Stacks, Queues and Lists: Definition, Array based implementation of stacks, Linked List based implementation of stacks, Examples: Infix, postfix, prefix representation Definition, Array based implementation of stacks, Linked List based implementation of stacks, Examples: Infix, postfix, prefix representation

Applications: Mathematical expression Evaluation

Definition: Queues & Lists: Array based implementation of Queues / Lists, Linked List implementation of Queues / Lists, Circular implementation of Queues and Singly linked Lists, Straight / circular implementation of doubly linked Queues / Lists, Priority queues, Applications

UNIT III

Sorting Searching Algorithm, Hashing: Introduction, Sorting by exchange, selection, insertions, Bubble sort, Selection sort, Insertion sort, Pseudo code algorithm and their C++ implementation, Efficiency of above algorithms, Merge sort, Merging of sorted arrays, merge sort algorithms. Quick sort algorithm, Heap sort algorithm, Radix sort

UNIT IV

Straight Sequential Search, Array implementations, Linked List representations, Search, non – recursive Algorithms, recursive Algorithms, Indexed Sequential Binary Search, Hashing, Hash function, Collision Resolution Techniques, Hashing Applications

UNIT V

Trees & Graphs: Definition of trees and Binary trees, Properties of Binary trees and Implementation, Binary Traversal - preorder, post order, in order traversal, Binary Search Trees, Implementations, Threaded trees, Balanced multi way search trees, AVL Trees, and their Applications.

Definition of Undirected and Directed Graphs and Networks, The Array based implementation of graphs, Adjacency matrix, path matrix implementation, The Linked List representation of graphs, Shortest path Algorithm, Graph Traversal – Breadth first Traversal, Depth first Traversal, Connectivity of graphs; Connected components of graphs, Weighted Graphs, Applications.

Text Books:

1. A. M. Tanenbaum, Langsam, Moshe J. Augentem, Data Structures using C, PHI Publ Reference Books:

3. E. Balagurusamy, Object – Oriented Programming with C++, Tata Mcgraw Hill.
4. A.V. Aho, J.E. Hopcroft and T.D. Ullman, Data Structures and Algorithms, Original edition, Addison-Wesley, 1999, Low Priced Edition.
5. Ellis Horowitz & Sartaj Sahni, Fundamentals of Data structures
6. Robert Kruse, Data Structures and Program Design in C, PHI Pub.
7. Willam J. Collins, Data Structure and the Standard Template library, Tata Mcgraw Hill.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Yrs. III SEMESTER
IT-306: Engineering Drawing

Course Outcomes:

CO1: Inculcate proper understanding of the theory of projection.
CO2: Exposure of the visualization skills.
CO3: Gain knowledge of various concepts like dimensioning, conventions and standards related to working drawings in order to become professionally efficient.
CO4: Learn basics of CAD/CAM software tools.

Course Contents:

Introduction: Drawing & Classification of drawings, Drawing Instruments and their uses, Indian standard for drawing. Geometrical Constructions; Polygon, Circle, Technical Lettering, Dimensioning.

Engineering Scales: Introduction – Engineering Scales, Graphical scale, Representative fraction, Types of scales – Plain, Diagonal, scale of chords.

Engineering Curves: Conic Section – Ellipse, Parabola, Hyperbola, Normal and Tangent to conic sections. Cycloidal Curves – Cycloid, Epi-cycloid, Hypo-cycloid, normal & tangent to Cycloidal curves. Involutes Curves – Involutes of circle, polygon, normal and tangents to involutes. Spirals Curves – Archimedean, Logarithmic, Tangents and Normal to spiral curves.

Projections: Types: Parallel and non- parallel projections. Orthographic – First and Third angle Projections, convention used, Orthographic Projection of Simple solids, conversion of 3-D view to orthographic views. Isometric Projection– Simple Solids, Isometric view, Conversion of orthographic view to isometric view. Introduction to oblique projection and perspective projection.

UNIT V

Projection of Geometrical features: Points, Straight, lines, Planes and Solids.
Section of Solids: Sections of Prisms, Pyramids, cones and cylinders.
Development of Surfaces: Development of surfaces of Prisms, Pyramids, cones and Cylinders.
Introduction to Computer aided drawings CAD

1. M. B. Shah & B. C. Rana , Engineering Drawing
2. N. D. Bhatt, Engineering Drawing

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES

DEVI AHILYA UNIVERSITY, INDORE

M. Tech. (IT) 5 Years

IV SEMESTER

Batch 2k18

JANUARY – MAY 2020

Sub Code	Subject Name	L	T	P	C
IT-401B	IT Act & Cyber Law	3	1	0	**4**
IT-402A	Numerical Analysis & Design	3	1	0	**4**
IT-403B	Data Base Management System	3	1	0	**4**
IT-409	Data & Computer Communication	3	1	0	**4**
IT-405A	UNIX Operating System	3	1	0	**4**
IT-407B	Data Base Management System Lab	0	0	4	**2**
IT-407D	UNIX Operating System Lab	0	0	4	**2**
	Comprehensive Viva	0	0	0	**4**
					28

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Years IV SEMESTER
IT-401B : IT Act & Cyber Law

Objectives: To understand:

- The basics of Cyber crime and its peculiarity
- Need for Cyber law and other governing laws
- Cyber Law in International and national arenas
- Practical Case laws on Cyber crimes in India

Prerequisite: Understanding of the Cyber security, Internet technologies and devices

Course Contents

1. **Introduction to Cyber Law & Cyber Crime**
   Definition of Cyber law, History of Cyber crime, Types of Cyber Crimes, Classification of Cyber Crimes, Distinction between Cyber Crimes and Conventional Crimes, Need of Cyber Law, Trends in Cyber Crimes, Cyber Criminals, Cyber Crime in India.

2. **Information Technology Act 2000**
   Introduction to IT Act 2000, Objective of the IT Act, 2000, Structure of the Act, Features of IT act 2000, Important Chapters of IT Act, Summary of the Act, Amendment Bill 2008, Jurisdiction on Cyber Crime, Filing of Complaint for Cyber Crime, Adjudication and appeal under IT Act 2000, Criminal Liability under IT Act, Civil Liability under IT Act

3. **Cyber Crime Investigation**
   Importance of Cyber Crime Investigation, Modes of Committing Cyber Crime, Motive behind Cyber Crime, Types of Cyber Crime, Steps & Procedures during Investigation, Correlating the evidence, Cyber Crime Investigation bodies, Procedure for Search and Seizure of Digital Evidence

4. **International Regime in Cyber Laws and Intellectual Property Rights**
   Introduction, United Nations and other International Organizations, IPR In India, Various Acts on IPR: Patents, Trademarks, Industrial Designs, and Geographic Indications of source, (patents), trademarks, industrial designs, The Semi Conductor Integrated Circuits Layout Design Act

5. **Cyber Crime & Other Laws**
   Indian Evidence Act and Cyber Crimes, Indian Penal Code and Cyber Crimes, Criminal Procedure Code and Cyber Crimes, Defamation on Cyber World, Arbitration

6. **Practical Study Cyber Crime Case Laws**

Recommended Books:

1. Cyber Law & Cyber Crimes By Advocat Prashant Mali; Snow White publications, Mumbai
2. Cyber Law in India by Farooq Ahmad; Pioneer Books
3. Information Technology Law and Practice by Vakul Sharma; Universal Law Publishing Co. Pvt. Ltd.
4. The Indian Cyber Law by Suresh T. Vishwanathan; Bharat Law House New Delhi
5. Guide to Cyber and E – Commerce Laws by P.M. Bukshi and R.K. Suri; Bharat Law House, New Delhi
6. Guide to Cyber Laws by Rodney D. Ryder; Wadhwa and Company, Nagpur
7. The Information Technology Act, 2000; Bare Act – Professional Book Publishers, New Delhi
8. Computer Forensics: Principals and Practices by Linda Volonino, Reynaldo Anzaldua and Jana Godwin; Pearson Prentice – Hall 2007
9. First Responder's Guide to Computer Forensics by Richard Nolan rt al; Carnegi Mellon, 2005.
10. Digital Evidence and Computer Crime, 2nd Ed. By Eoghan Casey; Academic Press, 2004.
11. The Regulation of Cyberspace by Andrew Murray, 2006; Rutledge – Cavendish.
12. Scene of the Cybercrime: Computer Forensics Handbook by Syngress.
13. Security and Incident Response by Keith J. Jones, Richard Bejtloich and Curtis W. Rose
14. List of Websites for more information is available on: Http://www.garykessler.net.library/ forensicsurl.html
15. Introduction to Forensic Science in Crime Investigation by Dr. (Smt) Rukmani Krishnamurthy

Web Site: http://www.cyberlawsindia.net

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Years IV SEMESTER
IT-402A : Numerical Analysis & Design

Course Outcomes:

CO1: Apply different numerical techniques to solve engineering problems .
CO2 : Solve numerical approximations of an equation by Newton method, Bisection Method, Secant Method, etc.
CO3: Using finite differences for interpolation and learn various interpolation methods.
CO4: Understand numerical integration and differentiation.
CO5: Establishing the limitations ,pros and cons of numerical methods.

Course Contents:

UNIT I
Introduction: - Error**,** Types of error, Solution of Transcendental and Algebraic equation, Zeros of a polynomial, Iterative method, Bisection method, False-Position method, Newton Raphson method.

UNIT II
Interpolation: - Finite Differences, Forward, Backward and Central differences, Differences of a polynomial, Newton's formula for interpolation, Related numerical and derivation, Gauss's central differences formula, Related numerical and derivation, Interpolation with unevenly spaced points, LaGrange's interpolation derivation and numerical, Inverse interpolation derivation and numerical, Divided differences and theirs properties, Newton's general interpolation formula, Method of successive approximations, Extrapolation.

UNIT III
Numerical Differentiation and Integration: - Introduction, Numerical Differential & Numerical Integration, General Formula for Integration, Trapezoidal rule, Simpson's 1/3 rule, Simpson's 3/8 rule, Boole's rule and Weddle's rule.

UNIT IV
Solution of differential Equations: - Newton - Cotes integration formula, Solution of differential equation, Taylor's series method, Picard's method of successive approximations, Euler's method, Runge - Kutta methods, derivation and numerical.

UNIT V
Ill-conditioned equation and refinement of solution: - Simultaneous Linear Equations, Solution of simultaneous linear equations, Gauss elimination method, Gauss elimination with pivoting derivation and numerical, Gauss - Seidel iterative methods, derivation and numerical.

Text Books:
1. S. S. Shastri, Numerical Methods (Text Book 1 for Numerical Methods)
2. Computer Based Numerical and Statistical Techniques by Dr. Santosh Kumar (S. Chand Publications)

Reference Books:
1. Computer Oriented Numerical Methods by *V.Rajaraman*
2. Numerical methods by *Veda Murthi and iyenger.*
3. C 77 by *Rama N. Reddy and Carol a.Zieglar*
4. Numerical Analysis by *Krishna Murthi.*

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE

M. Tech. (IT) 5 Years IV SEMESTER

IT-403B: Data Base Management System

Course Outcomes:

CO1: Understand the necessary concepts for database designing.
CO2: Design conceptual, logical database model and physical model.
CO3: Evaluate set of query using SQL and Relational algebra.
CO4: Understand the Concepts of RDBMS and Object oriented modeling

Course Contents:

UNIT I

Introduction, Purpose of Database System, View of data, Three Level -Architecture of DBMS, Data independence, Data models - Physical Model, Logical Model, Conceptual Model, Hierarchical data Model, Network data Model, relational data model,Object Oriented Model and their comparison, Database Languages, Transaction Management, Storage Management, Database Administrator, Database Users, Overall System Structure.

UNIT II

Entity-Relationship Model:- Basic Concepts, Design Issues, Mapping Constraint, Keys, Entity-Relationship Diagram, Weak-Entity Sets, Design of an E-R Database Scheme, Reduction of an E-R Schema to Tables, generalization and specialization in ER model

UNIT III

Introduction to relational
database systems, meaning of tuples, attributes, insertion, deletion, updating and retrieval in relational approach, various operations in relational approach like select, project, join, union.

UNIT IV

Structured Query Language:- Table Fundamentals,data types,creating ,viewing table, inserting,deleting, updating and modifying data in table,Applying data constraints-adding primary key,foreign key,unique key in table.Basic Structure, Set Operations, Oracle functions-string function,,numeric function,Aggregation Functions, Null Values, Nested Sub Queries, Joined Relation, Data Definition Language, Data Control Language, Data Transaction Language
Integrity Constraint:- Domain Constraint, Refrential Integrity, Triggers,

UNIT V

Relational Database Design:- Codd's 12 Rules, Pitfalls in Relational-Database Design, Decomposition, Functional Dependencies, Normalization up to 3NF.

UNIT VI

Introduction to VB and connectivity of database with VB.

Text Books:

1. A Silberschatz, H.F Korth, Sudersan "Database System Concepts" , MGH Publication.
2. Modern Database Management (5th Edition) (Hardcover) by Fred R. McFadden, Jeffrey A. Hoffer, Mary B. Prescott

Reference Books :

1 Elmasri & Navathe "Fundamentals of Database systems" – III ed.
2 B.C. Desai. "An introduction to Database systems" BPB.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE

M. Tech. (IT) 5 Years IV SEMESTER

IT – 409 : Data and Computer Communication

Course Outcomes:

CO1: Understand basic data communication components.
CO2: Understand the fundamentals of signaling and data transmission.
CO3 : Gain knowledge of Error detection and correction mechanisms
CO4: Functions of Data link layer and data link protocols.
CO5: Understand LAN standards.

Course Contents:

UNIT- I

Introduction & Overview of Communication Systems:

Basis for Data Communication, Guided Transmission Media: Twisted Pair; Coaxial Pair; Fiber Optics, Multiplexing Techniques: FDM; WDM; TDM; STDM, Unguided Transmission Media: Wireless Communication; Cellular Radio; Satellite Communication.

UNIT- II

Network Model: The OSI model :layered Network Architecture,peer-to-peer Processes,Layers in the OSI Reference model,The TCP/IP Model,Addressing :Physical,Logical ,Port and specific addressing,Comparing and Contrasting-OSI & TCP/IP Model.

UNIT- III

Physical Layer and Media:

Digital Data, Digital Signal: NRZL; NRZI; Bipolar AMI; Pseudo Ternary; Manchester; Differential Manchester; B8ZS; HDB3, Digital Data, Analog Signal: ASK; FSK; PSK, Analog Data, Digital Signal: PCM; PAM; DM; ADM, Analog Data, Analog Signal: AM; FM; PM, Switching: Circuit switch networks, Datagram Networks, Virtual Circuit networks, Multiplexing techniques:FDM,WDM,TDM,STDM.

UNIT- IV

The Data Link Layer:

Data Link Layer Design Issue: Framing; Character Count; Character Stuffing; Bit Stuffing; Physical Layer Coding Violation: Error Control; Flow Control; Error Correcting Codes; Error Detecting Codes; Hamming Codes; CRC Code. Protocols: Stop & Wait Protocol, Unrestricted Stop & Wait Protocol, Simplex Stop & Wait Protocol, Protocol for Noisy Channel, Sliding Window Protocol, Go Back N, Selective Repeat, Verification using File State, HDLC Data Link Protocol, ISDN, ATM.

UNIT-V

The Medium Access Protocols:

The Medium Access Sub Layer: Channel Allocation; Static; Dynamic, Multiple Access Protocols: ALOHA; CSMA, Collision Free Protocols, Limited Connection Free Protocols, WDMA, Wireless LAN Protocols, Digital Cellular Radio. Overview of IEEE Standards.

Text Books:

1. Data Communications and Networking (IV Edition). B.A. Forouzan (Tata McGraw Hill Publications)

Reference Books:

1. Computer Networks (IV Edition), A.S. Tanenbaum (PHI Publications)
2. Data and Computer Communications, William Stallings (PHI Publications)
3. Data Communications and Networks, Achyut S. Godbole (Tata McGraw Hill Publications)

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Years IV SEMESTER
IT-405A: UNIX Operating System

Course Outcomes:

CO1 : Understand UNIX as operating system.
CO2: Understand UNIX shell and its functionality.
CO3: Learn to execute UNIX commands.
CO4: Learn to send and receive electronic mail and what are its real-world limitations
CO5: File handling and shell programming concepts.

Course Contents:

UNIT I

Introduction and familiarization: History of UNIX operating system, Architecture of Unix login and log out

UNIT II

UNIX file system: File system hierarchy: file name, attributes, access rights and their change, copying moving and removal of files.

File permission mask, /etc/passwd file, su, newgrp, chown, chgrp commands. Contents of file and file commands. Hard and Soft links, search in file system find command.

UNIT III

Filters, standard input and standard output, pipes, pipelines, simple text manipulation utilities, utilities for comparing text files. Regular expression grep, egrep, fgrep, programmable filters sed, awk. Back up of files and directories, tar, cpio, dd.

UNIT IV

UNIX shell: Basic UNIX user skill, shell as command language, interpreter, command line, shell file metacharacter, script writing, examples of script. Process, ps, shell as process, job control, signals. Vi editor

UNIT V

Shell programming concept. Shell script control statements, loops, branching, return codes, test statements, shell parameters.

Text Books:

1. Sumitabha Das, UNIX: Concepts and application.

Reference Books:

1. Maurice J. Bach, The design of the UNIX operating system.
2. Y. Kanetkar, UNIX shell programming
3. Kamran Hussain, Linux Unleashed, Tim Parker.
4. Christopher Vickery, UNIX shell programmer's Interactive Workbook.
5. Mark F. Komarinsk, Cary Colette, Linux system administration handbook.
6. Dent and Gaddis, Guide to using Linux

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Years IV SEMESTER
IT-407B DBMS Lab Assignment

Section -A

1. Study and implementation of following DDL commands:
    a. CREATE TABLE
    b. ALTER TABLE
    c. DROP TABLE
    d. RENAME
    e. TRUNCATE TABLE
2. Study and implementation of following DML commands:
    a. INSERT INTO
    b. SELECT
    c. UPDATE
    d. DELETE
3. Study and implementation of following DCL commands:
    a. GRANT
    b. REVOKE
4. Study and implementation of following TCL commands:
    a. COMMIT
    b. ROLLBACK
    c. SAVEPOINT

Section -B

1. Define the schema for the following databases with specific data type and constraints, the table name and its fields name are to be taken from database description which are given below :

   A database is being constructed for storing sales information system.
   A product can be described with a unique product number, product name, selling price, manufacturer name. The product can sale to a particular client and each client have it own unique client number, client name, client addresses, city, pin code, state and total balance to be required to paid. Each client orders to buy product from the salesman. In the order, it has unique sales order number, sales order date, client number, salesman number (unique), billed whole payment by the party or not and its delivery date.
   The salesman have the name, addresses, city, pin code, state, salary of the sales man, delivery date, total quantity ordered, product rate.

   a) Draw an Entity Relationship diagram for above scenario. Make and state your assumptions where required.
   b) Convert above ER model into relational model in step by step manner.
   c) Write the SQL queries for the following –
      1. Create above tables with all constraints required and insert data into above tables.
      2. Retrieve the list of names and the cities of all the clients.
      3. List the various products available.
      4. Find the names of all clients having ‘a’ as the second letter in their names.
      5. List all the clients who are located in TEZPUR.
      6. Find products whose selling price is greater than 2000& less than or equal to 5000
      7. Add a new column NEW_PRICE into the product_master table.
      8. Rename the column product_rate of Sales_Order_Details to new_product_rate.
      9. List the products in sorted order of their description.
      10. Display the order number and date on which the clients placed their order.
      11. Delete all the records having delivery date before 25th August, 2008.
      12. Change the delivery date of order number ON01008 to 16-08-08
      13. Change the bal_due of client_no CN01003 to 1200
      14. Find the product with description as ‘HDD1034’ and ‘DVDRW’
      15. List the names, city and state of the clients not in the state of ‘ASSAM’
      16. List of all orders that were canceled in the of March .

2. **Consider the schema for the following databases with specific data type and constraints, the table structure is given below:**

   1.Employee F_Name varchar2(15) NOT NULL

LName varchar2(15) NOT NULL,
Emp_id varchar2(5) Primary Key,
city varchar(10),
Gender char(1) ,
Emp_hire_date date
Job_code varchar(5)
Supervisor_id varchar(5)
Dept_no number(4)
Constraint- Emp_id pK
Emp CHECK (Sex IN ('M', 'm', 'F', 'f')),
Supervisor_id Foreign key references emp_id of employee
Dept_no foreign key references Dep_no of Department

2.Department DName varchar(15) ,
DepNo unmber(4)
Mgr_id char(9) NOT NULL
Constraints- unique(DName),
Primary Key (DepNo),
Foreign Key (Mgr_id) REFERENCES employee (emp_id)

3.Project PName varchar(15) not ,
PNumber number(5) not null,
DepNo number(4),

Constraints - Primary Key (PNumber),
Foreign Key (DepNo) REFERENCES department (DepNo)

4.Works_on emp_id varchar(5) ,
PNo number(5)

Constraints - Primary Key (ESSN, PNo),
Foreign Key (emp_id) REFERENCES employee (emp_id)
Foreign Key (PNo) REFERENCES project (PNumber)

5.Dependent Emp_id varchar(5) ,
Dependent_Name varchar(15) not null,
gender char(1)

Constraints - Primary Key (emp_id, Dependent_Name),
Check (Gender IN ('M', 'm', 'F', 'f')),
Foreign Key (emp_id) REFERENCES employee (emp_id)

Write SQL queries for following:

1. Create above tables with all constraints mentioned.
2. Insert data into above tables.
3. Write the SQL code to change the job code to 501 for the person whose emp_id is'888665555'. After you have completed the task, examine the results, and then reset the job code to its original value.
4. Write the SQL code that lists all details of employees with a job code of 502.
5. Write the SQL code to delete the row for the person named William Smithfield, who was hired on June 22, 2004, and whose job code classification is 500. (*Hint*: Use logical operators to include all the information given in this problem.)
6. List the names of all employees who work in department 508.
7. Add a new column named salary in employee table.
8. List names and salaries of all employee ordered by salary.
9. List the name of employees whose salary is between 30000 and 50000.
10. List the name of employees who lives in Houston.
11. List department number and number of employees in each department, ordered by number of employees in each department

12. List department number and number of employees in departments that have more than 2 employees, ordered by department number.
13. List the emp_id of employees who works on project 3388 or project 1945.
14. list department with their manager name(join)
15. List the name of all female employees.
16. List the first name of all employee whose last name begins with letter 'sm'
17. Find the total no of departments.
18. Find the name of senior most employee (max(hire date)
19. Display from the Employees table the first name (fname), last name (lname), employeeID(emp_id) and job level (job_lvl) columns for those employees with a job level greater than 200; and rename the column headings to: "First Name," "Last Name," "IDENTIFICATION#" and "Job Level."
20. Show all the different projects for which employee work. Display only projects in which more than four employees are employed.
21. find emp_id of all employees working in the project in department named research
22. list employees who joined on the date on which 'john' joined.
23. Find the emp_id who works on project named 'projectF'
24. list the name of female dependents of employee named 'maria'
25. Execute query 23 using join.
26. List employee details along with their dependent's details(use join)
27. List employee details along with their dependent's details and also include employees those do not have dependents
28. List employees with their supervisor name.
29. Change the name of table employee to employee_details
30. List the name of employees who doesn't has supervisor
31. increase salary of employee with emp_id 5 by 10%

32 delete all the tables.

Section -C

1. Study and implementation of basic controls and their properties of Visual Basic 6.0 with help of designing simple forms.
2. Design a form for entering, storing and displaying employee details in employee table mentioned in question no. 2.

SQL Quick Reference

	Syntax
AND / OR	SELECT column_name(s) FROM table_name WHERE condition AND|OR condition
ALTER TABLE	ALTER TABLE table_name ADD column_name datatype or ALTER TABLE table_name DROP COLUMN column_name
AS (alias)	SELECT column_name AS column_alias FROM table_name or SELECT column_name FROM table_name AS table_alias
BETWEEN	SELECT column_name(s) FROM table_name WHERE column_name BETWEEN value1 AND value2
CREATE DATABASE	CREATE DATABASE database_name
CREATE TABLE	CREATE TABLE table_name (column_name1 data_type, column_name2 data_type,

	column_name2 data_type, ...)
DELETE	DELETE FROM table_name WHERE some_column=some_value or DELETE FROM table_name (Note: Deletes the entire table!!) DELETE * FROM table_name (Note: Deletes the entire table!!)
DROP DATABASE	DROP DATABASE database_name
DROP TABLE	DROP TABLE table_name
GROUP BY	SELECT column_name, aggregate_function(column_name) FROM table_name WHERE column_name operator value GROUP BY column_name
HAVING	SELECT column_name, aggregate_function(column_name) FROM table_name WHERE column_name operator value GROUP BY column_name HAVING aggregate_function(column_name) operator value
IN	SELECT column_name(s) FROM table_name WHERE column_name IN (value1,value2,..)
INSERT INTO	INSERT INTO table_name VALUES (value1, value2, value3,....) *or* INSERT INTO table_name (column1, column2, column3,...) VALUES (value1, value2, value3,....)
INNER JOIN	SELECT column_name(s) FROM table_name1 INNER JOIN table_name2 ON table_name1.column_name=table_name2.column_name
LEFT JOIN	SELECT column_name(s) FROM table_name1 LEFT JOIN table_name2 ON table_name1.column_name=table_name2.column_name
RIGHT JOIN	SELECT column_name(s) FROM table_name1 RIGHT JOIN table_name2 ON table_name1.column_name=table_name2.column_name
FULL JOIN	SELECT column_name(s) FROM table_name1 FULL JOIN table_name2 ON table_name1.column_name=table_name2.column_name
LIKE	SELECT column_name(s) FROM table_name WHERE column_name LIKE pattern
ORDER BY	SELECT column_name(s) FROM table_name ORDER BY column_name [ASC|DESC]
SELECT	SELECT column_name(s) FROM table_name
SELECT *	SELECT * FROM table_name
SELECT DISTINCT	SELECT DISTINCT column_name(s) FROM table_name

SELECT INTO	SELECT * INTO new_table_name [IN externaldatabase] FROM old_table_name *or* SELECT column_name(s) INTO new_table_name [IN externaldatabase] FROM old_table_name
SELECT TOP	SELECT TOP number|percent column_name(s) FROM table_name
TRUNCATE TABLE	TRUNCATE TABLE table_name
UNION	SELECT column_name(s) FROM table_name1 UNION SELECT column_name(s) FROM table_name2
UNION ALL	SELECT column_name(s) FROM table_name1 UNION ALL SELECT column_name(s) FROM table_name2
UPDATE	UPDATE table_name SET column1=value, column2=value,... WHERE some_column=some_value
WHERE	SELECT column_name(s) FROM table_name WHERE column_name operator value

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Years IV SEMESTER
IT-407D UNIX Lab Assignment

Assignment 1

Q. 1 Explain Unix functional layer model with the help of a diagram.

Q. 2 Explain any five services provided by an operating system.

Q. 3 Why Unix is so popular? List any five reasons.

Q. 4 Write the purpose of following commands in a table :-
(4.1) ls –F *.*
(4.2) mkdir dir1 dir1/dir2 dir1/dir2
(4.3) cd ../..
(4.4) mkdir –p asia/India/mp/indore/iips
(4.5) rm -i file1 file2 file3

Q. 5 Explain following commands with their options in a table:-
(5.1) wc
(5.2) comm
(5.3) split
(5.4) cmp
(5.5) lp

Q. 6 (6.1) What does the command egrep "dan|robin|ben|mari" phone_list do?
(6.2) How do you locate lines containing “saxena” and “saksena”.
(6.3) What is the use of the command:- grep −r “\.p[ly]” *
(6.4) Is ‘du’ a command? If so, what is its use?
(6.5) Write about the data structure used to maintain file identification?

Q. 7 What are a pipe, tee and a filter? Give an example of each.

Assignment 2

Q:-1 What do you mean by “UNIX is a layered operating system“. Explain?

Q:-2 Explain the following command with syntax and example :
1) pipe
2) time
3) who
4) cat
5) cup

Q:-3 Differentiate between Internal and External commands used in UNIX

Q:-4 Explain following option with particular command :
1. ls (-x,-F,-r,-l)
2. who (-H,u,a)

Q. 5 What are links and symbolic links in UNIX file system?

Q.6 How does the inode map to data block of a file?

Assignment 3

Q 1.

1. What is common option in rm, cp, mv command & what it will do ?
2. Which character can't be used in a filename ?
3. Which ls option marks directories and executable separately ?
4. What does cd do when used without arguments ?
5. When will rmdir fail to work ?
6. What will cat f1 f1 f1 display ?
7. How will you copy a directory structure bar1 to bar2 ?
8. How will you remove a directory tree even when it's not empty without using rmdir ?
9. How will you display only the lines common to two files?
10. Create a file and then assign all permission to the owner and remove all permission from others. How do you do that ?
11. How will you assign read permission for all to files beginning with a dot and having at least three characters after the dot ?
12. A user is not able to change a file's permissions. When can that happen ?
13. How will you double-space a file ?
14. How will you produce a list of all files in the current directory without headers, but in three columns ?
15. Select lines 5 to 10 of a file ?
16. How will you remove duplicate records from a file ?
17. How will you remove blank lines from a file ?
18. What does grep "^*" do ? Is the \ really necessary ?
19. How do you locate lines containing "saxena" and "saksena".
20. Locate all lines longer than 15 characters ?
21. Which important attribute of a file is not maintained in the inode ?
22. If the owner doesn't have write permission on a file, but his group has, can he edit it ?
23. What will command touch file do ?
24. What do you do make sure that no one is able to see the names of the files you have ?
25. A file was not writable by group and others, and yet it could be deleted by them. How ?
26. When you issue the ls –l command, it changes the access time of the file. True or False ?

Q:-2 What is Regular Expression ? What is use of it ?

Assignment 4

Q. 1 Explain following commands with description:-

1. find
2. finger
3. fg
4. bg
5. nice
6. at
7. batch
8. tar
9. cpio
10. dd

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES

DEVI AHILYA UNIVERSITY, INDORE

M. Tech.(IT) 5 Years

Batch 2k18

Semester -V

JULY-DECEMBER 2020

Sub. Code	Sub. Name	L	T	P	C
IT-501C	Computer Architecture	3	1	0	4
IT-502A	Microprocessor and Assembly Language	3	1	0	4
IT-505B	Programming in Java	3	1	0	4
IT-511	System Analysis and Design	3	1	0	4
IT-512	Discrete Structures	3	1	0	4
IT-507C	Programming in Java Lab	0	0	4	2
IT-508E	Microprocessor and Assembly Language Lab	0	0	4	2
IT-509	Comprehensive Viva	0	0	0	4
					28

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Years V SEMESTER
IT-501C Computer Architecture

Course Outcomes:

CO1 : Understand the concepts of design and analysis of the hardware of a computer system and its components such as control unit, arithmetic and logical (ALU) unit, input/output, and memory unit.

CO2: Concepts of microprogramming in the design of the central processing unit of a computer system.

CO3: Understand various ways for interconnecting I/O devices to the system.

CO4: Learn basic concepts of parallel processing

Course Contents:

UNIT I

Introduction and vocabulary, History of computer architecture, Overview of computer organization, Difference between Computer architecture & organization, von Neumann/Turing, IBM 360 series, Moore's law, Performance measurement: IPC, CPI, MIPS, Amdahl's law, CPU performance equation, Speeding it up, Performance Mismatch & Solutions, Instruction cycle, Interrupt cycle, Bus interconnections: Types, Arbitration, PCI.

UNIT II

CPU Structure, Registers, User Visible Registers, General Purpose Registers, accumulator organization, general register organization, stack organization of CPU, High level issues in CPU design, Memory: Location, Capacity, Unit of transfer, Access method, Performance (Access, cycle, transfer rate), Physical type (semi conductor or magnetic), Physical characteristics (volatile, erasable etc.), Locality of references, Cache mapping techniques, Cache write policies, Cache initialization, External memory, RAID organization of hard disks.

UNIT III

Input/Output: Programmed I/O, Interrupt Driven I/O, Direct Memory Access. Representing information digitally, Byte Ordering: Big-Endian & Little-Endian. Instruction sets, Elements of an Instruction, Instruction Representation, Instruction types, Number of Addresses, Design Decisions [CISC/RISC], Addressing Modes, Large Register File in RISC.

Register and data flow design, data fetch and instruction fetch in indirect instruction cycle, CPU control unit, Functions of Control Unit, Micro-Operations, Micro Programmed Control and Hardwired control unit and their advantages-disadvantages.

UNIT IV

Instruction level parallelism: Pipeline design, Synchronous & Asynchronous Pipeline conflicts: Resource conflict, Data dependency, and Branch difficulties. Solutions to deal with pipelining: Hardware interlocks, operand forwarding, Delayed load, Pre fetch target instruction, Branch target buffer, Loop buffer, Branch prediction, and Delayed branch. Super scalar design; Super pipelining, and VLIW processors.

UNIT V

Parallel Processing, Flynn's classification: SISD, SIMD, MISD, MIMD. Vector processor, Array Processor, Symmetric multi processing, NUMA, Cache coherence in parallel computing.

Reference Books:

1. William Stallings, Computer Organization and Architecture: Design for performance 8th Ed., Pearson Education.
2. Rajkamal, Computer Architecture, ISP 2006, Tata McGraw HILL.
3. Andrew Tanenbaum, Structured computer organization, 4th Ed., Prentice – Hall, Upper Saddle River, NJ, 2000. (Alternate reference)
4. M. Morris Mano, Computer System Architecture, 3rd Ed., Pearson Education.
5. Kai Hwang, Computer Architecture

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Years V SEMESTER
IT-502A: Microprocessor & Assembly Language

Course Outcomes :

CO1: Understand the basic concepts of microprocessor and assembly language programming.
CO2 : Understand the operation of microprocessors.
CO3: Assembly language programming skills .
CO4: Importance of peripheral devices
CO5 : Case Study of some popular microprocessors.

Course Contents:

UNIT I

Microprocessor–Based Systems: Hardware and Interfacing, Microprocessors, Microcomputers and Assembly Language8085, Architecture & Memory Interfacing I/O Devices.

UNIT II

Instruction Set and Addressing modes: Data transfer, Arithmetic, Logical, Branch & Machine control instructions, related programs & Addressing modes.
Additional Programming Techniques and Stack Operations: Subroutine, Counters & time delay, Code conversion, BCD arithmetic, 16 bit data operation.

UNIT III

Interrupt & Interfacing some peripheral I/O: Interfacing data converters, Programmable Interface Devices: 8155 I/O and Timer, 8279 Keyboard / Display interface

UNIT IV

General purpose programmable peripheral devices: 8255 (Bidirectional data transfer between two computer) 8254 (Programmable Interval Timer), 8259A Interrupt Controller, 8237 DMA, Serial I/O Communication.

UNIT V

Other eight bit, sixteen-bit Microprocessor: Z80, MC-6800, MC-68000, NSC
Introduction to advance Microprocessor: 8086, 80286, 80386, Microcontroller 8051.

Text Books:

1. R.S. Gaonkar, Microprocessor Architecture Programming and Application of 8085(Latest Edition).

Reference Book:

1. Shridhar and Ghosh, 0000 to 8085 Microprocessor.
2. Intel Corporation, Microprocessors and peripheral hand book.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Years V SEMESTER
IT-505B: Programming in Java

Course Outcomes :

CO1: Understand fundamentals of Java programming language such as its syntax, idioms, patterns, and styles with object oriented programming concepts.
CO2 : Understanding fundamentals of object oriented programming in the Java,including defining classes, invoking methods, using class libraries etc and exception handling mechanisms.
CO3 : Have the ability to write a Java program to solve specified problems.
CO4: Understand the principles of polymorphism and inheritance
CO5: Identify the usage of interfaces, packages
CO6: Identify the usage of collection framework

Course Contents:

UNIT I

Introduction to Java: Features of Java, Object-oriented programming overview, Introduction of Java Technologies, How to write simple Java programs, Data Types, Variables, Memory concepts, decision making operators, Naming Conventions Introduction to Class, Objects, Methods and Instance Variables, Primitive type Vs Reference Type, Initializing Objects with Constructors. Type conversion & casting, Operators, Control statement, while, do-while,for, foreach Statements, switch Multiple-Selection Statement, break and continue Statements. Static Method, static field and Math Class, Argument Promotion and Casting, Scope of declaration and Method Overloading.

String Handling & Arrays: String Handling: The String constructors, String operators, Character Exaction, String comparison, String Buffer.

Arrays: Declaring and Creating Arrays, Passing Arrays to Method, Multidimensional Arrays, Variable-Length Argument lists, Using Command-line Arguments. Final Instance Variables, this reference, static import, overloaded Constructors, Garbage collection and method finalize, Overloading methods, Parameter passing.

UNIT II

Inheritance & Polymorphism: Inheritance: Extending classes, protected Members, relationship between Superclasses and Subclasses, Using super, Constructor in Subclasses

Polymorphism: Method overriding, upcasting, Dynamic Method Dispatch, final Method and classes, Abstract classes and Methods, instanceof operator, Downcasting

Packages and Interfaces: Packages: Defining a Package, Understanding CLASSPATH, Access Protection, Importing packages, creating own packages.

Interfaces: Defining an Interface, Properties of interface, advantages of interface, Achieving multiple inheritance through interfaces, Variables in Interfaces.

UNIT III

Nested Classes & Exception Handling: Nested Classes: Overview of nested class and interfaces, static nested class and interfaces, non-static nested class and, anonymous classes.

Exception Handling: Introduction, overview of doing it and keywords used, when to use it, Java Exception Hierarchy, finally block, chained exceptions, declaring new exception types .

Streams and Files: Introduction to Data Hierarchy, Files and Streams, Sequential-access Text Files, Object Serialization, Random-Access files, Java Stream class Hierarchy.

UNIT IV

Multithreading: What are threads, The java thread model, Thread priorities, Thread life cycle, Creating thread and executing thread, Thread Synchronization, producer-consumer problem without Synchronization. Producer-consumer problem with Synchronization, Other class and Interfaces in java.util.concurrent, Monitor and Monitor Locks, Thread Groups, Synchronization, Inter-thread Communication.

Introduction to GUI & Applets: Introduction To GUI : Introduction, Overview of swing Components, Displaying text and Images in a window, Introduction to Event Handling, Common GUI Event Type and Listener Interfaces, How Event Handling Works, Adapter Classes, Layout Managers

Applets: Applet basics, Applet Architecture, Applet life cycle methods, Applet HTML Tag and attributes, Executing applet in web browser and in the appletviewer, in Passing parameters to Applets, doing GUI programming in applet.

UNIT V

Generic & Collection: API Generic: Introduction, Motivation for Generic Methods, Generic Methods : Implementation and Compile- time Translation Issues, Overloading Generic Methods, Generic Classes, Raw Types, Generic and Inheritance

Database connectivity: JDBC, The design of JDBC, Typical uses of JDBC, The Structured Query language, Basic JDBC Programming concepts, Executing Queries.

Text Books:

1. Deitel & Deitel, JAVA How to Program, Pearson Education, Sixth Edition
2. Herbert Schildt , Java : The Complete Reference, Tata McGraw- Hill, 7th Edition

Reference Books:

1. John Hubbard , Programming with Java (Schaum's Easy Outline)
2. JAVA 2 Black Book
3. Bruce Eckel , Thinking in Java, Prentice Hall
4. Gary Cornell, Cay Horstmann Core Java: Volume 1 Fundamentals, Eighth Edition, Pearson,
5. Sams Teach Yourself Java6 in 21 Days

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Years V SEMESTER
IT-511: System Analysis & Design

Course Outcomes :

CO1 : Understand system characteristics, project management, prototyping, and systems development life cycle phases.

CO2: Transform requirements specification onto practical and achievable design specifications

CO3 : Evaluate a wide range of problems related to the analysis and design of information systems.

CO4: Develop team building and communication and interviewing skills , which are essential to successful system projects

Prerequisite(s): Knowledge of following concepts is required, computer applications and software's, computer programming, Database management systems.

Course Contents:

UNIT- I

Overview of system analysis and design: Systems concepts, Definition, Characteristics of a system, Elements of a system, Types of System Physical or Abstract System, Open or Closed Systems, Man-Made Information Systems: Categories of Information, Formal Information Systems, Informal Information Systems.

UNIT- II

System Development Life Cycle: Recognition of need, feasibility study, Analysis, Design, Implementation, Post implementation and Maintenance, Project Termination, Prototyping.

Role of the system Analyst: Definition, Skills, Academic and Personal Qualifications, The Multifaceted Role of Analyst.

UNIT- III

System Analysis:

System Planning and the Initial Investigation: Bases of Planning in System Analysis, Dimensions of Planning, Initial Investigation, Needs Identification, Strategies for Determining Information Requirements, Problem Definition and Project Initiation, Background Analysis: Fact-Finding, Fact Analysis, Determination of Feasibility.

Structured Analysis: Introduction, Tools of Structured Analysis: Dataflow Diagrams, Data Dictionaries, Decision Tables, Decision Trees, Structured English.

Feasibility study: Introduction, Feasibility Considerations, Feasibility Study Stages, Feasibility Report, Cost/Benefit Analysis.

UNIT- IV

System design:

The Process and Stages of System Design: Introduction, The Process of Design: Logical and Physical Design, Design Methodologies: Structured Design, Form-Driven Methodology – The IPO Charts.

Input /Output and Form Design: Introduction, Input Design, Output Design, Form Design.

File Organization and Data Base Design: Introduction, File Structure, File Organization, Data Base Design, Views of Data, Data Structure.

UNIT- V

System Implementation, Post Implementation and Maintenance: Introduction, Testing objectives, System Testing, Types of System Tests, Quality Assurance: Quality Factors Specifications, Levels of Quality Assurance, Post Implementation and Maintenance, Project Scheduling, Project management.

Text Books:

1. System Analysis and Design by Elias M. Awad (GALGOTIA Publications)

Reference Books:

1. Analysis and Design of Information Systems by V. Rajaraman (PHI Publications)

2. System Analysis and Design & MIS by Anurag Jain (EXCEL BOOKS Publications)

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M.Tech. (IT) 5 Years V SEMESTER
Subject Code: IT-512 Subject Name: Discrete Structure

Course Outcomes :
CO1: Understand the notation of mathematical concepts, proofs .
CO2: Enhance mathematical reasoning
CO3: Understand Discrete Mathematics such as sets, permutations, relations, graphs, trees and finite-state machines.
CO4 : Enhance algorithmic thinking and apply in problem solving.
.

Course Contents:

UNIT I

Set theory: Introduction, sets and elements, universal set and empty set, subsets, Multi-set, Countable and uncountable sets, Venn diagrams, Set operations, Algebra of sets, Power sets, Partitions, Inclusion and exclusion, Mathematical induction, Ordered pair, Cartesian product, Computer representation of sets.

UNIT II

Relations: Introduction to relations, Pictorial representation of relations, Domain and range, Types of relations, Composition of relations, Equivalence relations, partially ordered relations. *Functions*: Introduction to functions, functions in terms of ordered pairs, Pictorial representation of functions, Types of functions: surjective, bijective, injective, etc., Inverse function, Equality of functions, Composition of functions.

UNIT III

Logic: Propositions and logic operations, Existential and universal quantifiers, Tautologies, Contradiction, Contingency, Logical equivalence.

Boolean algebra: Combinatorial circuits and their properties, Boolean functions and synthesis of circuits.*Lattices*: Partially ordered sets, Chains and anti chains, Representation and construction of Hasse diagrams, Special elements in POSETs, Lattices.

UNIT IV

Graph Theory-I: Definition and applications, Finite and infinite graphs, Incidence and degree, Isolated vertex, Pendent vertex, Types of graph, Subgraphs and isomorphic graph, Operations of graph, Paths, Cycles and connectivity, Eulerian and Hamiltonian graph, Planar graphs, Trees, Fundamental properties of trees, rooted and binary trees, spanning trees, fundamental circuits.

UNIT V

Graph theory-II: Cut sets and their properties, connectivity and separability, Network flows, 1 and 2 isomorphism, Matrix representation of graphs: Incidence and adjacency matrices, Diagraphs and shortest path algorithms, Applications of graphs, General discussion.

Reference Books:

1. J.P.Tremblay and R. Manohar . Discrete mathematical structures with applications to computer science, Tata McGraw Hill Publication
2. C.L.Liu . Elements of Discrete Mathematics, Tata McGraw Hill Publication
3. Llipschutz and Lipson. Discrete Mathematics, Schaum's outline series, Tata McGraw Hill Publication
4. K.A.Ross . Discrete Mathematics.
5. Bernard Kolman & Robert C. Busby. Discrete mathematical structures for Computer Science

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Years V SEMESTER
IT-507C Programming in Java Lab Assignment

SNo.	Program related to UNIT -I
1.	Write a program that produces the following output: Hello World! It's been nice knowing you. Goodbye world!
2.	State the order of evaluation of the operations in each of the following Java statements and implement them to show the value of x after each statement. (1) x = 7 + 3 * 6 / 2 – 1; (2) x = 2 % 2 + 2 * 2 – 2 / 2; (3) x = (3 * 9 * (3 + (9 * 3 / (3))));
3.	Write an application that declares 5 integers, determines and prints the largest and smallest in the group.
4.	Write an application that declares 5 integers, calculates and print the average of these numbers.
5.	Write an application that declares two integers, determines whether the first is a multiple of the second and print the result. [Hint : Use the remainder operator.]
6.	Write an application that calculates the product of the odd integers from 1 to 15.
7.	Write an application that evaluates the factorial of the integers from 1 to 5.
8.	Write an application Program to demonstrate your first object in java.
9.	Write an application Program to demonstrate all control statements(selection,iteration and transfer).

10.	Write an application Program to demonstrate Mehtod call activation records.
11.	Write an application Program to demonstrate Method overloading.
12.	Write an application for calculating Compound-interest (interest rate of 5% for 10 years) with for loop.
13.	Write an application for demonstrating with for-each loop.
14.	Write an application for demonstrate all shift operators.
15.	Modify the above compound-interest application to repeat its steps for interest rates of 5, 6, 7, 8, 9 and 10%. Use a for loop to vary the interest rate.
16.	Write an application Program of factorial number.
17.	Write an application Program of fibonacci series.
18.	Write an application Program of armstrong number.
19.	WAP to determine whether an entered number is prime or not.
20.	WAP in java to implement Selection Sort Algo.
21.	WAP in java to implement Bubble Sort Algo.
22.	WAP in java to implement Binary Search Algo.
23.	WAP in java to demonstrate Stack class.
24.	WAP in java to demonstrate Anonymous Array.
25.	Write a Java program that randomly fill a 3 by 4 by 6 array and then prints the largest and smallest values in the array.
26.	WAP in java to demonstrate 3D Array.
27.	WAP in java to demonstrate VARANGS.
28.	WAP in java to demonstrate Scanner class.
29.	WAP in java to demonstrate Enumarated data type.
30.	Write an application that uses String method equals and equalsIgnoreCase to tests any two string objects for equality.
31.	Write an application that uses String method indexOf to determine the total number of occurrences of any given alphabet in a defined text.
32.	Write an application that uses String method concat to concatenate two defined strings.
33.	Write an application that finds the length of a given string.
34.	Write an application that uses String method charAt to reverse the string.
35.	Write an application that finds the substring from any given string using substring method and startsWith & endsWith methods.
36.	Write an application that changes any given string with uppercase letters, displays it , changes

	it back to lowercase letters and displays it.
	Program related to UNIT -II
37.	Create a class called Employee that includes three pieces of information as instance variables – a first name (type String), a last name (type String) and a monthly salary (double)
38.	Create a constructor in above class to initialize the three instance variables. Provide a get method for each instance variable.
39.	Write a test application named EmployeeTest that demonstrates class Employee's capabilities. Create two employee objects and display each object's yearly salary.
40.	Give each employee a 10% raise and display each Employee's yearly salary again.
41.	Create a class Account with an instance variable balance (double). It should contain a constructor that initializes the balance, ensure that the initial balance is greater than 0.0.
42.	Create two methods namely credit and getBalance. The first one adds the amount (passed as parameter) to balance and does not return any data. The second method allows clients (i.e. the other classes that use this class) to obtain the value of a particular Account object's balance.
43.	Create class AccountTest to create and manipulate an Account object.
44.	Write another method debit in the above program that withdraws money from an Account. Ensure that the debit amount does not exceed the Account's balance. In that case the balance should be left unchanged and the method should print a message indicating "Debit amount exceeded account balance". Modify class AccountTest to test method debit.
45.	Write an application that reads a five digit integer and determine whether it is a palindrome (digit that reads the same backward and forward eg. 12321, 45554 etc.) . display an error message, if the number is no5 five digits long and allow the user to enter a new value.
46.	Write an application that reads three nonzero value entered by the user and determines and prints sum, product, average, smallest & largest of three.
47.	Write an application that prompts the user for the radius of a circle and uses a method called circleArea to calculate the area of the circle.
48.	Add another method in the above program circlePerimeter to calculate the perimeter of the circle.
49.	Write an application to create a super class Employee with information first name & last name and methods getFirstName(), getLastName() derive the sub-classes ContractEmployee and RegularEmployee with the information about department, designation & method displayFullName() , getDepartment, getDesig() to print the salary and to set department name

	& designation of the corresponding sub-class objects respectively.
50.	Derive sub-classes of ContractEmployee namely HourlyEmployee & WeeklyEmployee with information number of hours & wages per hour, number of weeks & wages per week respectively & method calculateWages() to calculate their monthly salary. Also override getDesig () method depending on the type of contract employee.
51.	Write an application to create a super class Vehicle with information vehicle number,insurance number,color and methods getConsumption() and displayConsumption(). Derive the sub-classes TwoWheeler and FourWheeler with method maintenance() and average() to print the maintenance And average of vehicle.
52.	Extend the above TwoWheeler class with methods getType() and getName() which gives the information about the type and the name of the company.Create sub-classes Geared and NonGeared with method average() to print the average of a geared and non-geared two wheeler.
53.	Create a super class CommunityMember with the information of member i.e. name, address, contact, date_of_join, through methods getName (), getAddress (), getContact (), getDate_of_Join () and derive sub-classes Employee and Student with method Qualification () to print the related information with his/her qualification.
54.	Create a super class Shape with methods getName() which gives the information about the type of the shape.derive its sub-classes TwoDim and ThreeDim with method area() and volume() respectively which prints the area and volume of a two-dimensional and three-dimensional shape.
55.	Extend the class TwoDim with methods getLength(),getBreadth() which displays the length and breadth of two dimentional shapes.Derive sub-classes rectangle, rhombus with method getArea() and getPerimeter() to calculate the area and perimeter of this two dimensional shapes. .
56.	Extend the class ThreeDim with methods getLength(),getBreadth(),getHeight() which displays the length , breadth and height of three dimentional shapes.Derive sub-classes cuboid,tetrahedron with method getArea() and getVolume() to calculate the area and volume of this threee dimensional shapes. .
57.	Create a super class Student with methods getQual (), getFirstName(),getLastName(), getAddress(), getContat(), which gives basic details of student.derive sub-classes Faculty and Scholar with method salary(), Course() resp. which gives the additional information about the salary and course of faculty and scholar resp. .
58.	Create an abstract class Shape which calculate the area and volume of 2-d and 3-d shapes with methods getArea and getVolume. Reuse this class to calculate the area and volume of

	square ,circle ,cube.
59.	Create an abstract class Employee with methods getAmount() which displays the amount paid to employee. Reuse this class to calculate the amount to be paid to WeeklyEmployeed and HourlyEmployee according to no. of hours and total hours for HourlyEmployee and no. of weeks and total weeks for WeeklyEmployee.
60.	Create an Interface payable with method getAmount ().Calculate the amount to be paid to Invoice and Employee by implementing Interface.
61.	Create an Interface Vehicle with method getColor(),getNumber(),getConsumption(). Calculate the fuel consumed, name and color for TwoWheeler and FourWheeler by implementing interface Vehicle.
62.	Create an Interface Fare with method getAmount() to get the amount paid for fare of travelling. Calculate the fare paid by bus and train implementing interface Fare.
63.	Create an Interface StudentFee with method getAmount(), getFirstName(),getLastName(), getAddress(), getContact(). Calculate the amount paid by the Hostler and NonHostler student by implementing interface StudentFee
64.	WAP to create your own package. Package should have more than two classes. Write a class that uses the package.
65.	Create a package named org.shapes. Create some classes in the package representing some common geometric shapes like Square, Triangle, Circle and so on.
	Program related to UNIT -III
66.	Exception Handling program for division of two numbers that accepts numbers from user.
67.	Exception Handling program for storing values in array of int or String that results into buffer overflow
68.	Exception Handling program for NullPointerException--thrown if the JVM attempts to perform an operation on an Object that points to no data, or null
69.	Exception Handling program for NumberFormatException--thrown if a program is attempting to convert a string to a numerical datatype, and the string contains inappropriate characters (i.e. 'z' or 'Q')
70.	Exception Handling program for ClassNotFoundException--thrown if a program can not find a class it depends at runtime (i.e., the class's ".class" file cannot be found or was removed from the CLASSPATH)
71.	Exception Handling program for IOException--actually contained in java.io, but it is thrown if the JVM failed to open an I/O stream

72.	Write a program that shows that the order of the catch blocks is important. If you try to catch a superclass exception type before a subclass type, the compiler should generate errors.
73.	Program for demonstrating the use of throw, throws & finally - Create a class with a main( ) that throws an object of class Exception inside a try block. Give the constructor for Exception a String argument. Catch the exception inside a catch clause and print the String argument. Add a finally clause and print a message to prove you were there.
74.	Create your own exception class using the extends keyword. Write a constructor for this class that takes a String argument and stores it inside the object with a String reference. Write a method that prints out the stored String. Create a try-catch clause to exercise your new exception.
75.	Write a program to rethrow an exception – Define methods one() & two(). Method two() should initially throw an exception. Method one() should call two(), catch the exception and rethrow it Call one() from main() and catch the rethrown exception.
76.	Write a program to change the priority of thread.
77.	WAP for producer consumer problem (with synchronization).
78.	Open a text file so that you can read the file one line at a time. Read each line as a String and send the results to System.out.
79.	Modify Exercise 1 so that the name of the file you read is provided as a command-line argument.
80.	Modify Exercise 2 to force all the lines in the results to upper case and send the results to System.out
81.	Modify Exercise 2 to also open a text file so you can write text into it.
	Program related to UNIT -IV
82.	Create an application to draw a horizontal line.
83.	Create an application to draw one line perpendicular to other. One line parallel to other.
84.	Create an application to display a circle within rectangle
85.	In the above application fill different colors in the circle & rectangle.
86.	Write an application that displays any string. Choose color from combo box to change the color of this displayed string.
87.	WAP to demonstrat AWT buttons with event handling.
88.	WAP to demonstrat BorderLayout in AWT window.
89.	WAP in java to create a file.
90.	WAP in java to delete a file.

91.	WAP in java to determine a file or dir exist or not.
92.	WAP in java to determine whether a file or dir.
93.	WAP in java to exit from a Frame window when we click on Close button.
94.	WAP in java to move a file.
95.	WAP in java to read a file using FileReader and break the contets using StringTokenizer.
96.	WAP in java to write into a file using FileWriter.
97.	WAP in java to demonstrat RandomAccessFile.
98.	WAP in java to rename a file.
99.	WAP in java to get file length.
100.	WAP in java to reverse a string by word.
101.	WAP in java to demonstrate StringTokenizer class.
102.	WAP to create your own package in defined a class StringUtils in this package.
103.	WAP in java to create thread that print counting by extending Thread class.
104.	WAP in java to demonstrate current thread.
105.	WAP in java to create a thread using Runnable interface.
106.	WAP in java to determine whether a thread is alive or not.
107.	WAP in java to demonstrate join() method of Thread class.
108.	WAP in java to implement toString() method in your class to print objects.
	Program related to UNIT -V
109.	WAP to change background color according to selected color from combo box.
110.	Write a program in java to scroll a string using Applet.
111.	WAP in java to demonstrate all mouse events.
112.	WAP in java to demonstrate all keyboard events.
113.	WAP in java to demonstrate GridLayout.
114.	WAP in java to create an Applete having status bar.
115.	WAP in java to demonstrate Color class.
116.	WAP in java to event handling using adapter classs.
117.	WAP in java to demonstrate Check Boxes in applet.
118.	WAP in java to demonstrate Calander class.
119.	WAP in java to display all available fonts in an applet window
120.	WAP to copy the content of a file to another file.
121.	WAP in java to demonstrate Random class.
122.	WAP in java to create an Applet that's background color will be change on each second.
123.	WAP in java to sum two 2-D matrix and store the result into third matrix.
124.	Create a program that will print every argument given on the command line. consider how your program will deal with no argument.
125.	WAP to draw a string and choose its size respectively from combo box.
126.	WAP in java to demonstrate data entry program.
127.	Create an application of cash withdrawal from the bank account that have no. of users that are operating the accounts.(synchronization)
128.	WAP to create three text boxes and save entered value into a file.
129.	Implement a class Reader that count the number of times a particular character, such as e, is

		read. The character can be specified when the stream is created.
	130.	Construct a program Wc ("word count"), which counts number of chars, words and lines of the text file. Space is counted as a character. Empty rows are counted as lines. "Word" will represent a string.
	131.	Write a small application with a default date 01/01/2000 and three combo boxes displaying valid days, months & year(1990 – 2050). Change the displayed date with the one chosen by user from these combo boxes.
	132.	Create a GUI with a text field and three buttons. When you press each button, make some different text appear in the text field.
	133.	Create a GUI application to take input of two numbers(text field) from user. When you press button it should display sum of the two numbers in a third text box.
	134.	Create an applet with a Button and a TextField. Write a referenceEvent( ) so that if the button has the focus, characters typed into it will appear in the TextField.
	135.	Write an application to create a GUI with two buttons such that clicking on the first displays the message “Welcome to SCS” on the window and clicking on the second changes the color of the message(hint : toggle the color)
	136.	Create a GUI with title STUDENT which has labels roll no., name, class, address with textboxes for taking input from the user(without any functionality).
	137.	Create a GUI application for fees receipt which contains checkboxes for selecting the course, radio buttons for selecting gender and labels and corresponding textboxes for name, class, date and amount paid.
	138.	Create a GUI application to display a calculator using grid Layout (You do not have to provide functionality).
	139.	WAP that generate a random number (1 – 10000). Let the user guess the correct number. User will enter the digit. Program should let the user that input is right or wrong. No of turns that user can make a choice for input is twice the number of digits in the system generated numbers.
	140.	Convert the input date in words. Input format is dd mm yy.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M.Tech. (IT) 5 Years V SEMESTER
IT-508E Microprocessor and Assembly Language Programming Lab Assignment

1. Exchange of two variables through

(a) Memory Location (b) Two Register (c) Register and Memory location

2. Program to add 2 numbers from

(a) Two Memory Location (b) Two Register (c) Register and Memory location

3. Program to subtract 2 numbers from

(a) Two Memory Location (b) Two Register (c) Register and Memory location

4. Program to OR contents of register and accumulator.

5. Program to XOR contents of register and accumulator.

6. Program to check equality of 2 numbers.

7. Program to divide decimal 42 by 5 and store result in register D.

8. Program to multiply decimal 04 and 05.

9. Program to generate Fibonacci series at memory location from 2050 to 2059.

10. Program to find square root of decimal 36.

11. Program to find factorial of any number.

12. Program to find minimum of 10 numbers.

13. Program to find maximum of 10 numbers.

14. Program to add contents of memory location 2050 and 2051 and store result at 2090.

15. Program to find minimum of 2 numbers.

16. Program to AND contents of register and accumulator.

17. Program to multiply 2 decimal numbers in which result is greater than 8 bits.

18. Program to check 4^{th} bit of a 8 bit number.

19. Program to add two 16 bit numbers.

20. Program to find summation (n*n) where n varies from 1 to 8.

21. Program to add 2 BCD numbers.

22. Program to arrange numbers in ascending order stored which are at memory location: 2050 to 2059.

23. Program to arrange numbers in descending order which are stored at memory location: 2050

to 2059.

24. Program to subtract two 16 bit numbers.
25. Program to demonstrate use of ADC.
26. Program to exchange contents of DE and HL register pair.
27. Program to implement UP counter.
28. Program to implement DOWN counter.
29. Program to convert a number from hexadecimal to binary.
30. Program to implement above question with help of sub routine.
31. Program to compliment contents of the accumulator.
32. Program to find smallest element in the array.
33. Program to find largest element in the array.
34. Program to arrange array in ascending order.
35. Program to arrange array in descending order.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES

DEVI AHILYA UNIVERSITY, INDORE

M. Tech.(IT) 5 Years

Batch 2k18

Semester -VI

JANUARY-MAY 2021

Sub. Code	Sub. Name	L	T	P	C
IT-601A	Computer Network and Security	3	1	0	4
IT-612	System Programming	3	1	0	4
IT-610	Advanced Java	3	1	0	4
IT-603A	Web Technology	3	1	0	4
IT-605A	Analysis and Design of Algorithms	3	1	0	4
IT-609A	Advanced Java Lab	0	0	4	2
IT-608E	Web Technology Lab	0	0	4	2
IT-607	Comprehensive Viva	0	0	0	4
					28

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M.Tech (5 Years) VI SEMESTER
IT-601A: Computer Networks and Security

Course Outcomes:

CO1: Understand about network components, topologies, network models, protocols and algorithms.
CO2: Understand the functions of OSI reference and TCP/IP model.
CO3: Knowledge of the functions of Application layer and Presentation layer paradigms and Protocols.
CO4: Understand the Session layer design issues and Transport layer services.
CO5: Exposure of Network layer and routing algorithms, congestion handling mechanisms
CO6: Exposure of cryptography and various network security algorithms.

Course Contents:

Unit I.

Introduction

Uses of Computer Networks, Network Hardware: LAN, MAN, WAN, Wireless Network, Internetworks; Network Software: Protocol hierarchies, Design issues for the layers, Connection Oriented and Connection less Services, Service Primitives; Reference Models: OSI, TCP/IP, Comparison of OSI and TCP reference models.

Overview of The Physical Layer

Guided & Unguided Transmission media, Multiplexing Techniques: Frequency Division Multiplexing, Wavelength Division Multiplexing, Time Division Multiplexing; Switching: Circuit Switching, Message Switching, Packet Switching; Ethernet cabling, Manchester encoding, Differential Manchester Coding.

Unit II.

The Data Link Layer

Data Link layer design issues, Elementary Data Link protocols: Unrestricted simplex protocol, Simplex stop-and-wait protocol, Simplex protocol for a noisy channel; Sliding Window protocols: One-bit sliding window protocol, Protocol using Go back N, Example Data link protocol: Higher Level Data Link Control, Data link layer in the internet;

The Medium Access Control Sublayer

The Channel Allocation problem, Multiple access protocols: ALOHA, Pure ALOHA, Slotted ALOHA, Carrier Sense Multiple Access protocols, Persistent and Non persistent CSMA, CSMA with collision detection, Collision-Free protocols: Bit map protocol, Binary countdown; Limited Contention protocols; Brief introduction to IEEE 802 standards; Ethernet MAC address,.

Unit III.

The Network Layer

Network layer design issues, Routing Algorithms: Optimality principle, Shortest Path Routing, Flooding, Distance Vector Routing, Link State Routing, Hierarchical Routing, Broadcast Routing, Multicast Routing; Congestion Control Algorithms: Congestion Prevention Policies, Jitter Control, Techniques for achieving good quality of service**,** Congestion control for multicasting; Internetworking, The Network layer in the Internet.

Unit IV.

The Transport Layer

The Transport service, Elements of Transport protocols: Addressing, Connection Establishment, Connection Release, Flow Control and Buffering, Multiplexing, Crash recovery; A simple Transport protocol, The Internet Transport protocols: UDP, TCP.

Unit V.

The Application Layer and Network Security

Introduction to Application Layer and Application layer protocols,DNS,E-mail,WWW, Network Security: Cryptography: Introduction to cryptography, Fundamental Cryptographic Principles; Symmetric key encryption, Symmetric Key Algorithms: DES, Cipher Modes, Cryptanalysis; Public-Key Algorithms: Public-Key encryptions, Digital Signature,Management of public keys, Authentication protocols,E-mail Security

Text Book:

[1] Andrew S Tanenbaum ,Computer Networks, PHI publications, 5th Edition, 2012.

Reference Books:

[1] Forouzan, Behrouz A., Mosharraf Firouz., *Computer Networks A Top-Down Approach*,
TaTa McGraw Hill publications, First Edition, 2012.
[2] Stallings, William, *Data & Computer Communications*, Pearson Education Asia, 6th Edition, 2001

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (5 Years) VI Semester
IT-612: System Programming

Course Outcomes:

CO1: Understand basic concepts of system software and system programming.

CO2: Learn the design of assemblers, compilers and preprocessors.

CO3: Understand the structure and design of assembler, compiler, linker and loader.
CO4: Understand the concept and theory behind the implementation of high level languages.

Course Contents:
UNIT I
Introduction to Software: System Software and Application Software, System Programming, Components of Language Processing System, Fundamentals of Language processing systems.
UNIT II
Assembler: Elements of Assembly Language programming, a simple Assembly Scheme, Pass Structures of Assemblers, Design of a Two-pass Assembler, Algorithms for two pass assembler.
UNIT III
Macros and Macro Processors: Macro definition and call, macro expansions, nested macro calls, Advance Macro facilities, Design of Macro Preprocessor and macro Assembler.
UNIT IV
Compiler: Compiler and Translators, cross compilers, phases in complier Design, design of Lexical analyzer.

UNIT V
Loaders and Linkers: General loader scheme, Absolute loading, Relocating loading, Dynamic Run Time Loading, Linker, Dynamic Linker, Re-locatable and self-relocating programs.
Software Tools: Software tools for program development, Editors, Debugger, Dedug Monitors, Programming Environments, User Interfaces, Co-routines and reentrant programs.

Text Book:
1. John. J. Donovan, System Programming, Tata McGraw Hill.

Reference Books:

1. D. M. Dhamdhere, System Programming and Operating System, 5th edition

2. Aho and Ullman , Principles of Compiler Design, Pearson Education.

3. Leland L. Beck, “System Software An Introduction to Systems Programming”, Pearson Education 3rd Edition.

4. Dougles. V. Hall , “Microprocessors and Interfacing”, Tata McGraw Hill.

5. Assembly Language Techniques for IBM PC, BPB Publication, Alan R. Millar

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Years VI SEMESTER
IT-610: Advanced Java

Objectives:

CO1: Design and develop an understanding of the web applications of Java.

CO2: Learn Java programming language with new and enhanced versions.

CO3: Develop skills to program GUI, Threads, Servlets and JSP based systems.

CO4: Develop distributed object applications.

Course Contents:

UNIT I

Collections: Collection Interfaces, Concrete Collections, the Collections Framework **Multithreading:** Creating thread and running it, Multiple Thread acting on single object, Synchronization, Thread communication, Thread group, Thread priorities, Daemon Thread, Life Cycle of thread.

UNIT II

Networking: Internet Addressing,InetAddress, Factory Methods, Instance Method,TCP/IP Client Sockets, URL, URL Connection, TCP/IP Server Sockets, Datagrams
Java Database Connectivity (JDBC): Merging Data from Multiple Tables: Joining,
Manipulating Databases with JDBC, Prepared Statements, Transaction Processing, Stored Procedures C

UNIT III

Servlets: Servlet Overview and Architecture, Interface Servlet and the Servlet Life Cycle, Handling HTTP get Requests, Handling HTTP post Requests, Redirecting Requests to Other Resources, Session Tracking, Cookies, Session Tracking with HttpSession.

UNIT IV

Java Server Pages (JSP): Introduction, Java Server Pages Overview, A First JavaServer Page Example, Implicit Objects, Scripting, Standard Actions, Directives, Custom Tag Libraries.

UNIT V

Remote Method Invocation: Defining the Remote Interface, Implementing the Remote
Interface, Compiling and Executing the Server and the Client
Common Object Request Broker Architecture (CORBA): Technical/Architectural Overview, CORBA Basics, CORBA services

Text Books:

- Core JAVA Volume-II- Advanced Features, 9th edition , Horstmann Cornell- Pearson.
- "Advanced Java 2 Platform HOW TO PROGRAM" by H. M.Deitel, P. J. Deitel, S. E. Santry – Prentice
- "Beginning Java™ EE 6 Platform with GlassFish 3 From Novice to Professional" by Antonio Goncalves
- Head First Servlets and JSP, Bryan Basham, O'Reilly

Reference Book/Web:

- Deitel & Deitel, JAVA How to Program, Pearson Education, Sixth Edition
- Herbert Schildt , Java : The Complete Reference, Tata McGraw- Hill, 9th Edition
- http://www.w3schools.in/java/
- http://www.tutorialspoint.com/

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Yrs. VI SEMESTER
IT-613A: Web Technology

Course Outcomes:

CO1: Understand the fundamental concepts of working of internet.

CO2: Design, format and link web pages

CO3: Write dynamic interfaces using JavaScript.

CO4: Connect databases to web sites.

CO5: Develop web application using HTML, CSS, XML, JavaScript etc.

Course Contents:

UNIT I

Introduction to computer networks and Internet Basics: Client Server Architechture, Internet Service Provider (ISP), Search Engines, Web Browse Architecture, Internet Addressing: IP Address IPv4 and IPv6, Domain address, Uniform Resource Locator (URL), Internet Services: FTP, Telnet, E-mail (SMTP), WWW (HTTP), DNS.

UNIT II

Hypertext Markup Language (HTML*):* Web Terminologies, Web Characteristics, Effective web programming, Web Documents: Static, Dynamic, Active, Browser Architecture, Characteristics of HTML, Types of Tags, Basic Tags, List, Table, and Introduction to HTML 5 tags.

UNIT III

Dynamic Hypertext Markup Language (DHTML): Introduction, Cascading Style Sheet (CSS): Introduction, Attributes, Types (Inline style, Style element, External Style Sheet), Class, Introduction to *CSS-3*, Media Query, Responsive Site development. Use of CSS Library like *Bootstrap.*

UNIT IV

Java Script: Client side Vs Server side scripting, Introduction to Client side scriping, Document Object Model (DOM), Variables, functions and events, Data Types and operators, Decision making with control structure and statements, Forms, Cookies, AJAX, Use of Java Script library *JQuery*.

UNIT V

Introduction to PHP, connecting php pages to RDBMS, creating Server-side Applications with PHP, Introduction to Extensible Markup Language (XML*).*

Required Text(s) :

1. Data Communication and Networking By Behrouz A. Forouzan (Tata McGraw Hill)
2. Web enabled commercial application By Ivan Bayross (BPB)

Reference Books:

1. HTML By Herbert Schildt
2. Web Programming By Chris Bates.
3. HTML 5 and CSS 3: Develop with Tomorrow's Standard Today(Pragmatic Programmers) By Brian P. Hogan
4. Learning jQuery By Jonathan Chaffer & Karl Swedberg (PACKT Publishing)

Electronic Materials, Web Sites etc:

1. http://www.w3schools.com/html/
2. http://www.w3schools.com/css/
3. http://www.w3schools.com/js/
4. http://www.w3schools.com/css3/
5. http://www.jquery.com

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (5 Years) VI Semester
IT-605A: Analysis and Design of Algorithm

Course Outcomes:

CO1: Learn good principles of algorithm design.

CO2: Understand the application of algorithms and design techniques to solve problems.

CO3: Analyze the complexities of various problems in different domains and design efficient algorithms.

CO4: Understand asymptotic notation to provide a rough classification of algorithms

CO5: Study algorithms for fundamental problems in computer science and engineering work and compare with one another.

CO6: Understand the problems for which it is unknown whether there exist efficient algorithms or even algorithm

Course Contents:

UNIT I

Introduction to Algorithms: Definition, Algorithm Specification, Performance analysis. Review of Data Structures: Stacks, Queues, Trees and Graphs.

UNIT II

Divide and Conquer: General Method, Binary Search, Finding the Maximum and Minimum, Merge Sort, Quick Sort, Selection Sort, radix short.

Dynamic Programming:- The General Method, Matrix Chain Multiplication, Memoisation, Memoised Fibonacci series computation. 0/1 Knapsack, Traveling Salesperson Problem.

UNIT III

The Greedy Strategy: General Method, Knapsack Problem, Job Sequencing with deadlines, Minimum Cost Spanning Trees - Prim's Algorithm, Kruskal's Algorithm

UNIT IV

Basic Traversal and Search Techniques:- Techniques for Binary Trees and
Graphs Back Tracking:- The General Method, The 8-Queens Problem
Branch And Bound:- The General Method, Traveling Salesperson Problem.

UNIT V

NP-Hard and NP-Complete Problems:- The Basic Concepts, Non-Deterministic Algorithms, The Classes NP-Hard & NP-Complete.

1. Thomas H. Cormen, Charles E.Leiserson, Donald L.Rivest. Introduction to Algorithms. Indian Edition Published.
2. Ellis A. Horowitz, Sartaj Sahni, Fundamentals of Computer Algorithm, Computer Science Press.

International Institute of Professional Studies
Devi Ahilya University, Indore
IT-608E : Web Technology Lab
Lab. Assignment

1) Write HTML code for each, ordered list and unordered list with its all type (1,a,A,I etc. and bulled, circle etc.) for List of IIPS, SCSIT, IMS list item.

2 Write the HTML code for following list output and background of web page is of , different color than white(use rgb() function for color.) ?

- IIPS
- IET
- IMS

Above items are **anchor** and on clicking IIPS it open iips webpage and on clicking IET it opens iet webpage and on IMS it open IMS webpage.

3) Write the HTML Code for the following Table Structure :

Year	**Course Name**				**Total Student**
	MCA	**M.Tech.**	**MBA(MS)**	**B.Com.**	
2008	500	150	600	450	1700
2009	520	140	550	400	1610
Grand Total					3310

4)What is Image Map? How many type of Image Map are used in HTML and explain each type with example (HTML Code)?

5)Write a HTML page to show usages of **HTML Table tag** and its attributes. Define following attributes of Table **CELLSPACING, CELLPADDING, ROWSPAN and COLSPAN**?

6) Write HTML code for showing ***International Institute of Professional Studies*** in H1-H5 tags.

7) Write HTML code for 4 Horizontal Line with

i) size=10 ii) width = 50% and noshade iii) width=200 size=3 and noshade
iv) width = 100 and align = right

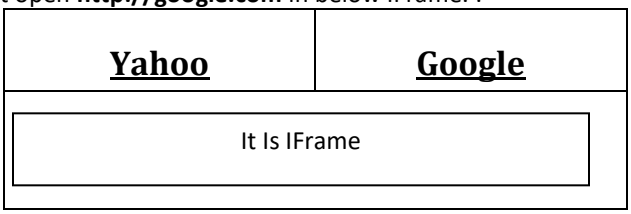
8) Create a main page in which there is 2 Column of 20% and 80%. In on column show Menu.html file which contain the list of Department of University (IIPS, IMS, etc) and on clicking particular department it opens the ***departmentname***.html(like iips.html,ims.html etc) file in the second column.

9) Create a Box class in style sheet and assign it to 2 **div** tags in one div show the information about University and other will show the information about IIPS. Box class have the following attributes values.

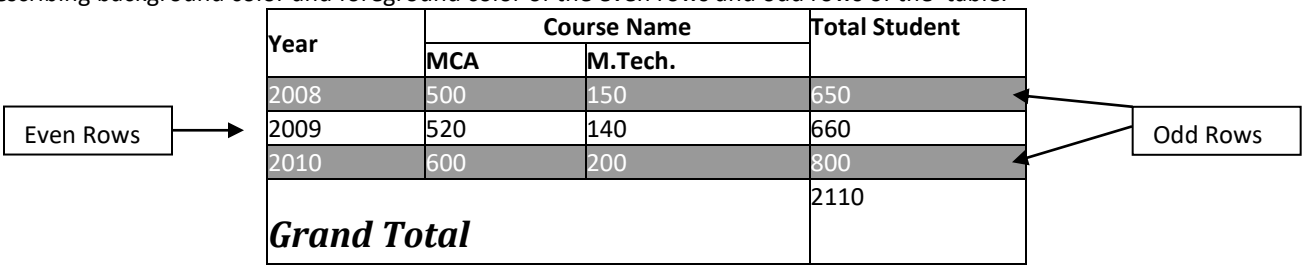
border: 1pt;
border-color: red;
border-style: solid;
width: 0%;
margin: 1em;
padding: 0.5em;
background-color : #ddddaa

10) Write a HTML for testing marquee tag with all its attributes. Put some anchor inside marquee also.

11) Write the HTML Code for the following Table Structure. If you click on Yahoo then it open **http://yahoo.com** and if you click google then it open **http://google.com** in below IFrame. :



12) Write HTML and CSS code for below given Table . In CSS you should use the class named ***even*** and ***odd*** for describing background color and foreground color of the even rows and odd rows of the table.



Year	Course Name		Total Student
	MCA	M.Tech.	
2008	500	150	650
2009	520	140	660
2010	600	200	800
Grand Total			2110

13) Write code for showing example of window.open(), alert(), prompt() methods and its attribute?

14) Write code for following CSS3 Property, create some tag and apply following css property on them:

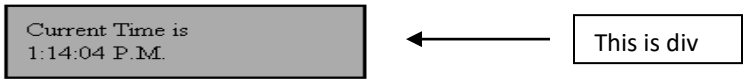
- transform.
- Scrollbar

15) Write HTML, CSS code for the following animation task.

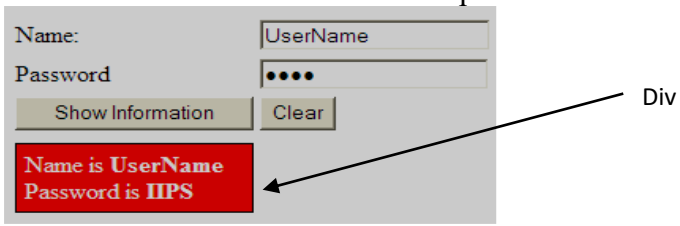
Your web page have a divs element, whose original coordinates are top 100px,left 100px, width 100 px and height 100px. Your animation works for 10 seconds and in this period its:

- background color will have to change from red to green,
- its size to double.

16) Write the javascript, html and CSS code for the below given design: this web page shows the client side clock and it will update its time on each second.



17) Write the HTML, JavaScript and CSS code for the following design: when user click on the "**Show Information**" button it show the name and password value in below given div and when user click "**Clear**" button it will clear the name and password textbox.



18) Write the PHP code for the following information:

Your database server url is =>**10.81.203.8:8558** ,

User Name =>**IIPS** ,

Password =>**IIPSPwd** ,

Database Name=>**StudentDB** .

There is a table **StudMast(Stu_ID int, Stu_Name Varchar(50), CGPA number(5,2))** in above said database. Your PHP page should read Stu_ID, Stu_Name and CGPA from user by HTML Forms input elements and then save them in database.

19) Write the PHP code for the following information:

Your database server url is =>**10.81.203.8:8558** ,

User Name =>**IIPS** ,

Password =>**IIPSPwd** ,

Database Name=>**StudentDB** .

There is a table **StudMast(Stu_ID int, Stu_Name Varchar(50), CGPA number(5,2))** in above said database. Your PHP page should show all records of the table from Database. Sample layout of web page is as follows:


Student List is :

Table: studmast

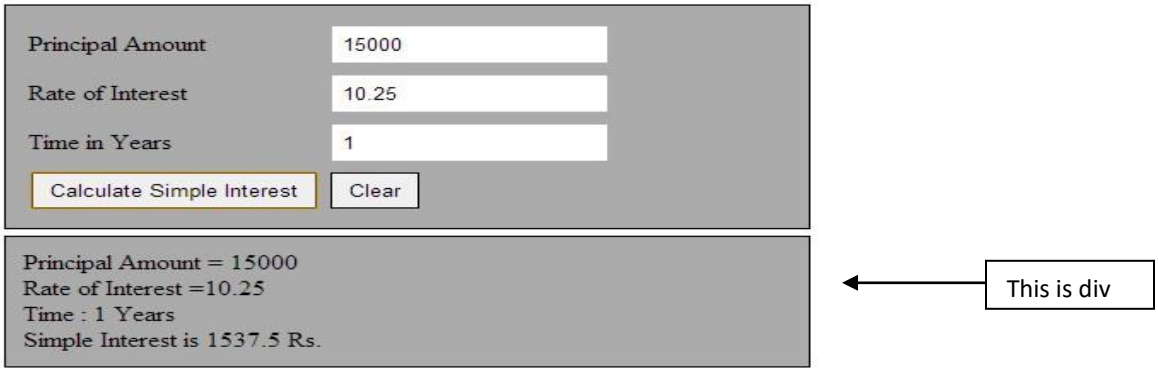
stu_id	stuname	cgpa
1	Kamlesh	8.72
2	Prakash	9.12
3	Shyam	8.88

20) Write a HTML page to test various CSS properties like transform, transition, animation, box-shadow etc.

21) Create your resume by HTML tags and beautify it by CSS selectors (H1, anchore, :hover etc.)

22) Write the necessary code for the web page. Your web page has 6 different images. All images has same width and height 200px X 200px and when you move mouse over a particular image, its size goes 1.5 times and a shadow will appear around the image and this action should take 1/10 seconds to complete.

23) Write the javascript, html and CSS code for the below given design**:** this web page shows the Simple Interest and other information in given format, when the ***"Calculate Simple Interest"*** Button is clicked. If we clicked the ***"Clear"*** button, it will clear all the entries. You can use *JQuery* syntax.



24) Write the PHP code for displaying the server date and time.

25) Create a XML file for following table structure.

SNo	RollNo	Name	
		FirsrName	LastName
1	10001	Akash	Mishra
2	10002	Mukesh	Jain

26) Write HTML, CSS and JavaScript code for the design given below. Stopwatch should show hours, minutes, seconds and 1/10th second in a div. There are 2 buttons one for starting the stopwatch and 2nd for stop the stopwatch. When user clicks on Start Stopwatch button then this event should start the stop watch and update the time in Div in each 1/10th second and when user clicks Stop Stopwatch then it will stops the stopwatch counter.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES

DEVI AHILYA UNIVERSITY, INDORE

M. Tech.(IT) 5 Years

Batch 2k18

Semester -VII

JULY-DECEMBER 2021

Sub. Code	Subject Name	L	T	P	C
IT-711	Advanced Database Management System	**3**	**1**	**0**	**4**
IT-702A	Theory Of Computation	**3**	**1**	**0**	**4**
IT-712	Computer Graphics and Multimedia	**3**	**1**	**0**	**4**
IT-705	Operating System	**3**	**1**	**0**	**4**
IT-709A	Computer Graphics and Multimedia Lab	**0**	**0**	**4**	**2**
IT-710	Project	**0**	**0**	**4**	**4**
IT-707	Comprehensive Viva	**0**	**0**	**4**	**4**
				Total	**26**

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Years VII SEMESTER
IT-711: Advanced Database Management System

Course Outcomes:

CO1**:** Learn advanced features of DBMS and build capacity to implement and maintain an efficient database system using emerging trends.
CO2: Master the concepts and design with proficiency databases under the relational model.
CO3: Understand the concept of a transactions and ACID properties.
CO4: Proficiency in the choice of DBMS platform to use for specific requirements.
CO5: Acquaint with a broad range of data management issues including data integrity and security, transaction processing and others.
CO6: Exposure of distributed DBMS, object database management, data warehousing and data mining.

Course Contents:

UNIT I

Introduction with DBMS and ER Model : Advantage of DBMS approach, various view of data, data independence, schema and sub-schema, primary concepts of data models, Database languages, transaction management, Storage management Database administrator and users, overall system architecture.

Basic concepts of ER model, design issues, mapping constraint, keys, ER diagram, weak and strong entity sets, specialization and generalization, aggregation, inheritance, design of ER schema.

UNIT II

Functional Dependencies and Normalization: Domains, relations, keys, super key, candidate, primary, alternate and foreign keys, Functional dependence, Full Functional dependence, trivial dependencies, transitive dependencies, Mutual independence, closure set of dependencies, non loss decomposition, FD diagram. Introduction to normalization, first, second, third Normal forms, dependency preservation, BCNF, Multivalued dependencies and fourth normal form.

UNIT III

PL/SQL fundamentals: Variables, reserve words, identifiers, anchored data types, blocks, labels, use of DML in PL/SQL, commits, rollback, savepoint, conditional control: if, case, nullif, coalesce, iterative processing with loops: Loop basics , simple loops, while, for loop.

UNIT IV

Database Integrity, Transaction, concurrency and Recovery: Basic idea of Database Integrity, Integrity rules, assertions, integrity Constraints, triggers.

Basic concepts of Transaction, ACID properties, Transaction states, implementation of atomicity and durability, concurrent executions, Serializability, Conflict serializability, View serializability, basic idea of concurrency control, Concept of locking, types of locks, basic idea of deadlock, deadlock handling.

UNIT V

Distributed Database and Emerging Fields in DBMS: Basic idea of Distributed database, distributed data storage, data replication, data fragmentation- horizontal vertical and mixed fragmentation.

Object oriented Databases-basic idea and the model, object structure, object class, inheritance, multiple inheritance, object identity.

Data warehousing- terminology, definitions, characteristics, data mining and it's overview, Database on www, multimedia Databases- introduction, similarity based retrieval, continuous media data, multimedia data formats, video servers.

Reference Books:

1. A Silberschatz, H.F Korth, Sudersan "Database System Concepts" , MGH Publication.
2. Modern Database Management (5th Edition) (Hardcover) by Fred R. McFadden, Jeffrey A. Hoffer, Mary B. Prescott
3. Elmasri & Navathe "Fundamentals of Database systems" – III ed.
4. B.C. Desai. "An introduction to Database systems" BPB.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Years VII SEMESTER
IT-702A: Theory Of Computation

Course Outcomes:

1. CO1: Gain knowledge about the basic concepts of Computation.
2. CO2: Understand regular expressions, which are used to specify string patterns in many contexts, from office productivity software to programming languages.
3. CO3: Understand finite automata, formalism mathematically equivalent to regular expressions, Finite automata are used in circuit design and in some kinds of problem-solving.
4. CO4: Learn Context-free grammars to specify programming language syntax.
5. CO5: Understand computability theory and decision problems.

Course Contents:

UNIT I

Formal languages: Introduction to Computation & Languages: Natural Languages, Computer Programming Langauges and Formal Languages. Language Concepts: alphabet, strings, properties of Strings, kleene closure. Properties of Formal Languages.

Grammar: Chomsky Hierarchy of grammar, languages represented by type 0,1,2,3 grammars.

UNIT II

Regular languages and finite automata-recursive definition, regular expression and corresponding languages, Pumping Lemma for non-regular languages. Finite automata, kleene's theorem, non-deterministic finite automata. Equivalence of FAs and NFAs. Minimal state finite automata, Mealy machine and Moore machine, Regular grammar and their equivalence to finite automata.

UNIT III

Context free languages Parsing, ambiguity, parse trees, parsing methods: Bottom up and top down, Simplification of grammar. Normal form of CFGs: Chomsky Normal Form and Greibach Normal Form, CKY algorithm, Closure Properties of CFLs

UNIT IV

Push Down Automata: definition, examples, deterministic PDA, non-deterministic PDA, Parsing and PDAs, PDA and Context Free Languages

UNIT V

Turing machines – models of computations, definition, Representation of Turing Machines, TMs as language acceptors, Techniques for TM construction, Church - Turing thesis, Universal Turing machines, Variants of Turing machine.

Unsolvable Decision Problems- Decidability, Decidable Languages, Undecidable Languages Halting Problem of Turing Machine.

Reference Books:

1. Hopcraft and Ullman, Introduction to Automata Theory, Languages and Computation, Narosa Publishing House.
2. K.L.P. Mishra, N. Chandrasekaran, Theory of Computer Science (Automata, Languages and Computation), Prentice Hall of India.
3. Peter Linz, An Introduction to Formal Languages and Automata, Narosa Publishing House.
4. Cohen Daniel I.A., Introdution to Computer Theory, John Weley and Sons , inc New York
6. Martyn John C, Introduction to Languages and Theory of Computation, McGraw Hill, N.Y. (Internal Edition McGraw Hill)
7. Mandrioli Dino, Ghezzio Carlo, Theoretical Fundamentals of Computer Science, John Weley and Sons, Inc , New York.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE

M. Tech. (5 Years) VII Semester

IT -712: Computer Graphics & Multimedia

Course Outcomes:

CO1: Understand the fundamental concepts of Computer Graphics and Multimedia.
CO2: Learn the graphics techniques and algorithms.
CO3: Knowledge of different display devices and their functioning.

CO4: Exposure of Windowing and Clipping techniques.
CO5: Knowledge of multimedia concepts and various I/O technologies.
CO6: Develop design animations, flash movies etc.

Course Contents:

Unit- I

Introduction:

Application of Computer Graphics, Raster Graphics Fundamentals: Scan conversion, Pixel, Frame Buffer. Graphics Primitives; Line algorithms Circle algorithms, Ellipse, Character generation, Polygon Representation, inside test, Polygon filling algorithms, Antialiasing.

Unit- II

Display devices:Random scan and Raster scan monitors, Colors CRT monitor, Plasma Panel;
Hard Copy devices:Printers and Plotters; Input devices:Joysticks, Mouse, Digitizer, Scanner, and Camera; Input Techniques;

Unit- III

Windowing and clipping:2D Transformation, Raster method of Transformation,Window, View port, Viewing, Window to View port Transformation, Line clipping algorithms, Polygon clipping algorithms.

Unit-IV

Multimedia: Introduction and Applications, Components of multimedia, Fundamentals of Information theory, Multimedia Authoring tools, Basics of Computer Animation (Design, types of animation, using different functions),Hypermedia, multimedia applications

Unit-V

Computer based Animation (Design and Programming)

Basic concepts , Animation design techniques, animation design using Macromedia flash : Drawing overview, Symbols, layers, Types, Buttons, sound creating animation, Publishing flash movies. Frame actions, Button actions, Variables and data types, Basic actions, Conditionals and operators, loops handling events, sound programming, color programming

Reference Books :

1. Computer Graphics: Donald Hearn and M.Pauling Baker, Prentice Hall of India. .
2. Procedural Element of Computer Graphics: David F. Rogers McGraw Hill International.
3. Multimedia Computing, Communications & Applications: Ralf and Klara, Prentice Hall.
4. Multimedia: Making It Work: Tay Vaughan, Tata McGraw-Hill Education, 01-Jan-2006

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Years VII SEMESTER
IT-705: Operating System

Course Outcomes:

CO1: Understands function, structures and history of operating system.
CO2: Understanding of design issues associated with operating systems.
CO3: Understands various process management concepts including scheduling, synchronization, multithreading and deadlocks.
CO4: Understands concepts of memory management including virtual memory.
CO5: Understands how system resources are shared among the users.
CO6: Learn issues related to file system interface and disk management.
CO7: Becomes familiar with protection and security mechanisms.
CO8: Becomes familiar with various types of operating systems including Unix.

Course Contents:

UNIT I

Introduction to Operating System:- Objectives and functions and the services provided by OS.

Evolution of operating system:- Concepts of batch processing, multiprogrammed batched system, time-sharing systems, Parallel Systems, Distributed systems. Operating system structure: -System calls and system programs.

UNIT II

Process Management: -Process concept, Process states, Process scheduling , Operations on processes , Co-operating processes and IPC.

CPU scheduling: - Basic concept and scheduling criteria, Long term, short term medium term schedulers, Scheduling algorithms, Multi-Processors Scheduling, Measurement of performance of processor.

UNIT III

Process synchronization: - Critical section problem, Mutual exclusion and synchronization, Concept of semaphores, Classical IPC problems. Deadlocks: - Characterization of deadlock, Methods of handling prevention, detection and avoidance, Recovery from deadlock.

UNIT IV

Memory management:-Logical and physical address spaces, Swapping and paging, Contiguous, allocation and its drawbacks, Non-contiguous allocation. Virtual memory: - Demand paging and its need, Performance of demand paging, Page replacement and its need, Thrashing and allocation of frames.

File system interface: - File concept, access methods, Directory structure, protection and consistency. File system structure, Allocation methods, Free space management, Efficiency and performance, Coincidence, protection and sharing.

UNIT V

I/O system: - Various i/o devices, Device drivers, structure of I/O software, Transforming
I/O request of h/w operation. Secondary storage structure:- Disk structure, Disk Scheduling, Disk management, Swap space management and Disk reliability.

Note:- Case study of windows and Unix operating system is to be done as assignment.

Text Book:

1. Silberschatz , Gagne, Galvin, Operating System concept, 8th edition, WILEY.

Reference Books:

1. D. M. Dhamdhare, System Programming and operating system, Tata McGraw Hill, 3rd edition.
2. Gary Nutt, Operating Systems, 3rd edition Pearson Education.
3. Andrew S. Tanenbaum, 3rd edition Modern Operating Systems

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Years VII SEMESTER
Lab Assignment
IT-709A:Computer Graphics & Multimedia Lab

PROGRAM 1:
Procedure to create an animation to represent the growing moon.

PROGRAM 2:
Procedure to create an animation to indicate a ball bouncing on steps.

PROGRAM 3:
Procedure to simulate movement of a cloud.

PROGRAM 4:
Procedure to draw the fan blades and to give proper animation.

PROGRAM 5:
Devise a routine to produce the animation effect of a square transforming to a triangle and then to a circle.

PROGRAM 6:
Create a web page for a clothing company which contains all the details of that company and at least five links to other web pages.

PROGRAM 7:
Procedure to display the background given(filename: tulip.jpg) through your name.

PROGRAM 8:
Procedure to simulate a ball hitting another ball.

PROGRAM 9:
Procedure to create an animated cursor using tartdrag("ss", true); mouse.hide();

PROGRAM 10:
Procedure to design a visiting card containing atleast one graphic and text information.

PROGRAM 11:
Procedure to take a photographic image. give a title for the image. put the border. write your names. write the name of institution and place.

PROGRAM 12:
Procedure to prepare a cover page for the book in your subject area . plan your own design

PROGRAM 13:
Procedure to extract the flower only from given photographic image and organise it on a background. selecting your own background for organisation.

PROGRAM 14:
Procedure to adjust the brightness and contrast of the picture so that it gives an elegant look.

PROGRAM 15:
Procedure to position the picture preferably on a plain background of a colour of your choice -positioning includes rotation and scaling.

PROGRAM 16:
Procedure to remove the arrows and text from the given photographic image.

PROGRAM 17:

Procedure to type a word and apply the effects shadow emboss

PROGRAM 18:
Procedure to use appropriate tool(s) from the toolbox, cut the objects from 3 files (f1.jpg, f2.jpg& f3.jpg); organise them in a single file and apply feather effects.

PROGRAM 19:
Procedure to display the background given (filename: garden.jpg) through your name using mask.

PROGRAM 20:
Procedure to make anyone of one of the parrots black & white in a given picture.

PROGRAM 21:
Procedure to change a circle into a square using flash.

.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES

DEVI AHILYA UNIVERSITY, INDORE

M. Tech.(IT) 5 Years

Batch 2k18

Semester -VIII

JANUARY-MAY 2022

Sub. Code	Sub. Name	L	T	P	C
IT-801B	Principles of Programming Language	3	1	0	4
IT-804B	Mobile and Wireless Computing	3	1	0	4
IT-803B	Artificial Intelligence	3	1	0	4
IT-802A	Software Engineering	3	1	0	4
IT-805A	Cloud Computing	3	1	0	4
	Elective –I 1.IT-808: Bio Informatics 2. IT-809: Image Processing 3. IT-810: Simulation and Modelling 4.IT-811A:Information Security 5.IT-812 :Real Time System	3	1	0	4
IT-807	Comprehensive Viva	0	0	0	4
					28

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE

M. Tech. (5 Years) VIII Semester

IT- 801B: PRINCIPLES OF PROGRAMMING LANGUAGES

Course Outcomes:

CO1: Define the semantics of programming language.
CO2: Investigate semantic issues in programming languages
CO3: Solve problems using a range of programming paradigms.
CO4: Assessment of different programming paradigms for a particular

Course Contents:

UNIT I SYNTAX AND SEMANTICS
Evolution of programming languages – describing syntax – context-free grammars – attribute grammars – describing semantics – lexical analysis – parsing – recursive-decent – bottomup parsing

UNIT II DATA, DATA TYPES, AND BASIC STATEMENTS
Names – variables – binding – type checking – scope – scope rules – lifetime and garbage collection – primitive data types – strings – array types – associative arrays – record types – union types – pointers and references – Arithmetic expressions – overloaded operators – type conversions – relational and boolean expressions – assignment statements – mixedmode assignments – control structures – selection – iterations – branching – guarded statements

UNIT III SUBPROGRAMS AND IMPLEMENTATIONS
Subprograms – design issues – local referencing – parameter passing – overloaded methods – generic methods – design issues for functions – semantics of call and return – implementing simple subprograms – stack and dynamic local variables – nested subprograms – blocks – dynamic scoping

UNIT IV OBJECT-ORIENTATION, CONCURRENCY, AND EVENT HANDLING
Object-orientation – design issues for OOP languages – implementation of object-oriented constructs – concurrency – semaphores – monitors – message passing – threads – statement level concurrency – exception handling – even handling

UNIT V FUNCTIONAL AND LOGIC PROGRAMMING LANGUAGES
Introduction to lambda calculus – fundamentals of functional programming languages – Programming with Scheme – Programming with ML – Introduction to logic and logic programming – Programming with Prolog – multi-paradigm languages

OUTCOMES:
Upon Completion of the course,the students will be able to describe syntax and semantics of programming languages
Explain data, data types, and basic statements of programming languages
Design and implement subprogram constructs14
Apply object-oriented, concurrency, and event handling programming constructs, Develop programs in Scheme, ML, and Prolog
Understand and adopt new programming languages

REFERENCES:
1. Robert W. Sebesta, “Concepts of Programming Languages”, Tenth Edition, Addison Wesley, 2012.
2. Michael L. Scott, “Programming Language Pragmatics”, Third Edition, Morgan Kaufmann, 2009.
3. R. Kent Dybvig, “The Scheme programming language”, Fourth Edition, MIT Press, 2009.
4. Jeffrey D. Ullman, “Elements of ML programming”, Second Edition, Prentice Hall, 1998.
5. Richard A. O'Keefe, “The craft of Prolog”, MIT Press, 2009.
6. W. F. Clocksin and C. S. Mellish, “Programming in Prolog: Using the ISO Standard”, Fifth Edition, Springer, 2003.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE

M. Tech. (5 Years) VIII Semester

IT-804B : Mobile and Wireless Computing

Course Outcomes:

CO1 : Understand the basic concepts of cellular system .
CO2: Understand the GSM architecture.
CO3: Understand the concept of wireless LAN, Mobile networks and sensor networks.
CO4: Acquaint with structures and components of mobile IP.
CO5: Understanding the techniques for security and privacy.
CO6: Possible future of Mobile Computing and Applications.

Prerequisites: Computer Networks

Course Contents:

Unit I

Introduction: Overview of the emerging field of mobile computing; Historical perspectives (mainly from the perspective of radio), Land mobile vs. Satellite vs. In-building communications systems, RF vs. IR.
Characteristic of Cellular Systems, Mobility support in cellular telephone networks, Mobile applications, Limitations, Health Concerns.

Unit II

Mobile communication: Fiber or wire based transmission, Wireless Transmission: Frequencies, Antennas and Signal Propagation – path loss of radio signals, Additional signal propagation effect, Multipath propagation, Spread Spectrum- DSSS and FHSS.
Modulation Techniques, Multiplexing techniques, Coding techniques, CDMA, Multiple Radio Access – Introduction Contention based protocols, Channel Allocation

Unit III

The Cellular Concept : Introduction, Cell Area, signal strength and cell parameters, capacity of a cell, Frequency reuse, Co-channel Interference, Cell splitting, Cell Sectoring.
Mobile Communication System : Introduction, Cellular System Infrastructure, Registration, Handoff support, Multicasting, Authentication & security, frequency hopping.
Introduction Contention based protocols, Channel Allocation. GSM- System architecture of GSM,
protocols, localization and calling, handover,security. **Unit IV**

IEEE802.11: Protocol architecture, layers, Information bases and networking, Case Study on Wireless LAN infrastructure and Bluetooth.
Mobile IP, goals, assumptions requirements, entities & terminology, IP packet delivery, tunnelling and encapsulation, Feature & formate IPv6, DHCP, TCP over Wireless.

Unit V

Characteristic of Ad Hoc networks, Applications, need for routing, routing classification, Wireless sensor networks, classification & Fundamental of MAC protocol for wireless sensor networks, Introduction to IOT

Text Books:-

1.Mobile Communications author Jochen Schiller, publication John Willy & Sons, Ltd.
2. Wireless And Mobile Systems author D P Agrawal & Qing-An zeng, publication Thomson.

Reference Books:-

1.Wireless Networks author P Nicopotidis, publication Addision –Wesley-An zeng
publication **2**: Mobile Computing author Dr. Rajkamal, publication Oxford University Press.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (5 Years) VIII Semester
IT-803B: Artificial Intelligence

Course Outcomes:

CO1: Exposure to techniques of solving problems that need human intelligence**.**
CO2: Formulate Artificial Intelligence problems
CO3: Using of heuristic techniques to solve the AI problem.
CO4: Understand the concepts of Knowledge Representation and Issues.
CO5: Explore the types of Knowledge, Representation and mapping, approaches and issues in knowledge representation.
CO6: Formulate Predicate Logics.
CO7: Learn and implements the concepts through Prolog Programming:

Course Contents:

Unit-I

Introduction to AI & Problem Solving in AI:
What is AI, AI Techniques, Defining the Problem in AI, Problem Spaces, Problem Characteristics, Production System and its Characteristics.

Unit-II

Heuristic Search Techniques: Heuristic Search, Criteria for Success, various search techniques-Generate and Test, Depth and Breadth First, Hill Climbing , Best first Search, A* algorithm.

Unit-III

Knowledge Representation and Issues: Types of Knowledge, Representation and mapping, approaches and issues in knowledge representation, Predicate Logic- representation of simple facts, computable functions, resolution, logic programming, matching, control knowledge.

Unit-IV

Prolog Programming:
Introduction and applications, facts, objects and predicates, Linguistic variables, Rules, input-output operations, controlling execution: Recursion, fail; Arithmetic operations, List, dynamic databases; expert system design.

Unit-V

Knowledge Representation Techniques and Advanced AI: Slot and filler structure – introduction, weak and strong structure, semantic nets, frames, conceptual dependency and Frames; fuzzy logic and robotics, Expert system-concept and design.

Reference Books:-

1. Artificial Intelligence: Elaine Rich and Kevin Knight (TMH publication)
2. Introduction to AI and expert systems: D.W. Patterson (PHI publication)
3. Essential References: Artificial Intelligence: Petric Henry Winston (Addison-Wesley)
4. N.J.Nilson: Principles of Artificial Intelligence, Narosa Publications.
5. Introduction to Turbo Prolog: Carl Townsand(BPB publication)

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Years VIII SEMESTER
IT-802A: Software Engineering

Course Outcomes:

CO1: Knowledge of various software application domains and different process model used in software development.
CO2: Understand various activities undertaken for software development project.
CO3: Develop a software project proposal
CO4: Develop software requirement specification and design documents.
CO5: Understanding of approaches of verification, validation and various testing approaches.
CO6: Organize different activities of project as per Risk impact factor.
CO7: Understanding of quality control standards.

Course Contents:

UNIT I

Introduction to Software Engineering: Software problem, Software engineering problem, Software engineering approach, Software characteristics and Applications.

Software Processes: Software processes and its components, characteristics of software processes, Software development processes: Linear Sequential model, Prototyping model, RAD model, Iterative Enhancement model, Spiral model, Component based development, Comparative study of various development models

UNIT II

Project management process: The people, product, process and project, Phases of project management process, the W5HH principle. Software configuration management process, Process management process: Capability Maturity Model (CMM).

UNIT III

Software Requirement Analysis and Specification: Software requirements, Problem analysis, Requirements specifications, Validation and Verification, Metrics.

Project Planning: Project estimation (Size & Cost), Project Scheduling, Staffing and personnel planning, Software configuration management plans, Quality assurance plans, Project monitoring plans, Risk management.

UNIT IV

Software Design: Design principles: Problem partitioning and hierarchy, Abstraction, Modularity, Top-down and Bottom-up strategies. Effective Modular design: functional independency, Cohesion, Coupling. Structured design methodology.

UNIT V

Software Quality Assurance: Quality concept, Quality management system, movements and assurance, Software reviews: formal and technical, Formal approaches to SQA, Statistical software quality assurance, Software reliability, ISO 9000, SQA plan.

Software Testing: Software testing techniques: Testing fundamentals, White box testing, Black box testing, testing for specialized environments, architectures and applications. Software testing strategies: A strategic approach to software testing, Strategic issues, Unit testing, Integration testing, Validation testing and system testing, the art of debugging

Reference Books:

1. Ian Sommerville, Software engineering, Ninth edition Pearson.

2. Pankaj Jalote, An Integrated Approach to Software Engineering, Narosa Publishing House.

3. R. S. Pressman, Software Engineering-A practitioner's approach, Tata McGraw-Hill International Editions, New York.

4. Richard E. Fairly, Software Engineering Concepts, Tata McGraw Hill Inc. New York.

5. W. S. Jawadekar, Software Engineering: Principle & Practice, Tata McGraw-Hill, New York
6. Rajib Mall, Fundamentals of Software Engineering, PHI, New Delhi.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Years VIII SEMESTER
IT-805A: Cloud Computing

Course Outcomes:

CO1: Understand the concepts, characteristics, delivery models and benefits of cloud computing
CO2: Understand the key security and compliance challenges of cloud computing
CO3: Understand the key technical and organizational challenges
CO4: Understand the different characteristics of public, private and hybrid cloud deployment models.
CO5: Apply different cloud programming model as per need.
CO6: Explore some important cloud computing driven commercial systems such as Google Apps, Microsoft Azure and Amazon Web Services and other businesses cloud applications.
CO7: Explore the concepts of VM management and Cloud Security.

Course Contents:

Unit-I

Introduction: Historical development ,Vision of Cloud Computing, Characteristics of cloud computing as per NIST , Cloud computing reference model ,Cloud computing environments, Cloud services requirements, Cloud and dynamic infrastructure, Cloud Adoption and rudiments .Overview of cloud applications: ECG Analysis in the cloud, Protein structure prediction, Gene Expression Data Analysis ,Satellite Image Processing ,CRM and ERP ,Social networking .

Unit-II

Cloud Computing Architecture: Cloud Reference Model, Types of Clouds, Cloud Interoperability & Standards, Scalability and Fault Tolerance, Cloud Solutions: Cloud Ecosystem, Cloud Business Process Management, Cloud Service Management. Cloud Offerings: Cloud Analytics, Testing Under Control, Virtual Desktop Infrastructure.

Unit –III

Cloud Management & Virtualization Technology: Resiliency, Provisioning, Asset management, Concepts of Map reduce , Cloud Governance, High Availability and Disaster Recovery. Virtualization: Fundamental concepts of compute ,storage, networking, desktop and application virtualization .Virtualization benefits, server virtualization, Block and file level storage virtualization Hypervisor management software, Infrastructure Requirements , Virtual LAN(VLAN) and Virtual SAN(VSAN) and their benefits .

Unit-IV

Cloud Security: Cloud Information security fundamentals, Cloud security services, Design principles, Secure Cloud Software Requirements, Policy Implementation, Cloud Computing Security Challenges, Virtualization security Management, Cloud Computing Secutity Architecture .

Unit-V

Market Based Management of Clouds , Federated Clouds/Inter Cloud: Characterization & Definition , Cloud Federation Stack , Third Party Cloud Services .

Case study : Google App Engine

Recommended Text:

1. Buyya, Selvi ," Mastering Cloud Computing ",TMH Pub
2. Kumar Saurabh, "Cloud Computing" , Wiley Pub
3. Krutz , Vines, "Cloud Security " , Wiley Pub
4. Velte, "Cloud Computing- A Practical Approach" ,TMH Pub
5. Sosinsky, " Cloud Computing" , Wiley Pub

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Years VII SEMESTER
IT-808: Bio-Informatics

Course Outcomes:

CO1: Develop an understanding of the basic principles of molecular and cell biology.

CO2: Become familiar with existing tools and resources for computational analysis of biological data, including sequences, phylogenies, microarrays, ontologies, and bio-molecular interactions.

CO3: Understand basic abstractions and computational approaches used for analysis including data warehouses, data mining, programming languages.

CO4: Analyse biological data using computational methods, as well as investigating problems in molecular and biology from a computational perspective

Course Contents:

UNIT I

What is bioinformatics? Definitions and concepts, Objectives/goals of Bioinformatics, Importance of Bioinformatics , Genome projects, DNA, RNA,DNA fingerprinting , types of RNA, functions of mRNA, tRNA, and rRNA, Amino Acids, Proteins, Central Dogma of Molecular Biology, Gene Coding,& Expression ,Genetic disorder , cloning.

UNIT II

Molecular Biology, RNA, DNA , Protein structure, DNA Sequencing, Base Pairs,Mutations and its type, Sequence Alignment, Dot plots, Simple Alignment. Scoring Matrices. Algorithms Pair wise sequence alignment - NEEDLEMAN and Wunsch, Smith Waterman algorithms; Multiple sequence alignments - CLUSTAL, PRAS; Patterns, motifs and Profiles in sequences.

UNIT III

Biological Databanks, Data Mining, Data warehousing, data capture, data analysis; Introduction to Nucleic Acid and Protein Sequence Data banks; Nucleic acid sequence data banks: Genbank, EMBL nucleotide sequence data bank, Protein sequence data banks: NBRF-PIR, SWISSPROT, Signal peptide data bank; Database Similarity Searches: BLAST, FASTA, PSI-BLAST algorithms.

UNIT IV

Programming Languages, Programming in C: Pointers, pointers to functions, macro and programming in C, graphs, data structure– linked list, stack, queue, binary trees, threaded binary trees, File and exception handling in C.

PERL: Strings, Numbers, and Variables. Variable Interpolation, Basic Input and Output, File handles, Making Decisions, Conditional Blocks, Loops, Combining Loops with Input, Standard Input and Output, Finding the Length of a Sequence File, Pattern Matching, Extracting Patterns, Arrays, Arrays and Lists, Split and Join, Hashes, A Real-World Example, BioPERL; Applications.

UNIT V

Bioinformatics medicine, Preventative medicine , Gene therapy ,Drug development | Alternative energy sources, personalized medicine, crop improvement, forensics analysis, Biotechnology etc. Machine learning overview, Neural networks, , Phylogenetic trees

Reference Books:

1. Pierre Baldi and Søren Brunak, Bioinformatics, The Machine Learning Approach, second edition, MIT Press, Cambridge, MA, 2001.
2. Dan E. Krane, Michael L. Raymer , Fundamental Concepts of Bioinformatics.
3. James Tisdall, Beginning Perl for Bioinformatics.
4. Cynthia Gibas, Per Jambeck , Developing Bioinformatics Computer Skills.
5. Arthur M. Lesk , Database Annotation in Molecular Biology: Principles and Practice.

International Institute of Professional Studies,
Devi Ahilya University, Indore.
Master of Technology(IT) 5 years VIII semester
IT-809:Image Processing

Course Outcomes:
CO1: Knowledge of basic concepts of a digital image processing system.
CO2 : Analyze images in the frequency domain using various transforms.
CO3 : Exposure of the techniques for image enhancement and image restoration.
CO4 : Learn various compression techniques.
CO5: Interpret Image compression standards.
CO6 : Learn image segmentation and representation techniques.

Course Contents:

UNIT I DIGITAL IMAGE FUNDAMENTALS
Introduction – Origin – Steps in Digital Image Processing – Components – Elements of Visual Perception – Image Sensing and Acquisition – Image Sampling and Quantization – Relationships between pixels - color models

UNIT II IMAGE ENHANCEMENT
Spatial Domain: Gray level transformations – Histogram processing – Basics of Spatial Filtering–Smoothing and Sharpening Spatial Filtering – Frequency Domain: Introduction to Fourier Transform – Smoothing and Sharpening frequency domain filters – Ideal, Butterworth and Gaussian filters

UNIT III IMAGE RESTORATION AND SEGMENTATION
Noise models – Mean Filters – Order Statistics – Adaptive filters – Band reject Filters – Band pass Filters – Notch Filters – Optimum Notch Filtering – Inverse Filtering – Wiener filtering Segmentation: Detection of Discontinuities–Edge Linking and Boundary detection – Region based segmentation- Morphological processing-erosion and dilation

UNIT IV WAVELETS AND IMAGE COMPRESSION
Wavelets – Subband coding - Multiresolution expansions - Compression: Fundamentals – Image Compression models – Error Free Compression – Variable Length Coding – Bit-Plane Coding – Lossless Predictive Coding – Lossy Compression – Lossy Predictive Coding – Compression Standards

UNIT V IMAGE REPRESENTATION AND RECOGNITION
Boundary representation – Chain Code – Polygonal approximation, signature, boundary segments – Boundary description – Shape number – Fourier Descriptor, moments- Regional Descriptors –Topological feature, Texture - Patterns and Pattern classes - Recognition based on matching.

Text books:
1.Digital Image Processing and Computer Vision, Sonka, lavac, Boyle, Cenage Learning.
2.Digital Image Processing, R.C. Gonzalez, R.R. Woods(TMH)
3.Digital Image Processing And Analysis, PHI, B. Chanda, D.Datta Mujumdar.
References Books:
1.Anil Jain, "Fundamentals Of Digital Image Processing", Anil Jain PHI, ISBN-81- 203-0929-4
2.Digital Image Processing using MATLAB, R.C. Gonzalez, R.R. Woods(Person), 2nd Edition.
3. Digital Image Processing, S.Jayaraman, T. Veerakumar (Mc Graw Hill).
4.Introduction to Digital Image Processing with MATLAB, Alasdair McAndrew, Cenage Learning

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (5 Years) VIII Semester
IT-811A: Information Security

Course Outcomes:
CO1: Knowledge of basic concepts of Information Security.
CO2: Insight and expertise in information security technology, digital forensics or security management.
CO3: Learn different Cryptographic Algorithms.
CO4: Apply knowledge in new areas within the field of information security.

Course Contents:

UNIT-1
Internet Ethics, Browser Security,Downloads, e-Mail Security and guidelines for using e-mail safely, Malware, Mobile Security ,Online Banking Risks, Online Scams, Password Threats

UNIT-2
Social Engineering, Desktop Security, Copyrights, Instant messengers, security risks, Data Security, Importance of securing data, Different methods of securing data, Identity theft, Online predators, Phishing and vishing scams,SPAM

UNIT-3:
Introduction to Cryptography: History of cryptography, Basic principles and theorem, Block and stream ciphers, Cryptographic Algorithms: DES, 3DES, RC-4, Twofish, Blowfish and AES, RSA, hash functions, Public and private key systems,

UNIT -4:
Approximate strength of ciphers, Authentication, Password system. Secure design principles (Least-privilege, fail-safe defaults, complete mediation, separation of privilege) ,TCB and security kernel construction, System defence against memory exploits Windows security.

UNIT-5
Data Security and Network security, Network Intrusion detection and prevention systems, Firewalls, User authentication, authentication-via- secret and session management,SQL Injection, Resource Protection models, Side channel attacks ,Authentication models, Authentication methods ,Trusted Computing ,Legal and Ethical Issues

References:

1. W.Stallings, "Cryptography and Network Security – Principles and Practices", Pearson Education, 2003.
2. Mann, Mitchell, Krell, "Linux System Security", 2nd Edition, Pearson Education, 2003.
3. Robert, C. Newman, "Enterprise Security", Pearson Education, 2003.
4. Kaufman, Perlman and Speciner, "Network Security, Private Communication in a Public Network", Prentice Hall of India, 2003.
5. Nortcutt & Judy Novak, "Network Intrusion Detection", 3rd Edition, Pearson Education, 2003.
6. Computer Security: Art and Science (2nd version)

Web sites:
1. www.infosecuritymag.com
2. www.list.gmu.edu

E-resources:
1. https://onlinecourses.nptel.ac.in/noc15_cs03/
2. https://onlinecourses.nptel.ac.in/noc16_cs01/
3. https://onlinecourses.nptel.ac.in/noc17_cs08/
4. https://onlinecourses.nptel.ac.in/noc18_cs24/
5. https://www.coursera.org/learn/information-security-data

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (5 Years) VIII Semester
IT-812: Real time System

Course Outcomes:
CO1: Understand the basic concepts and the classification of real time systems.
CO2: Gain knowledge of requirements for Real time systems.
CO3: Become aware of various real time languages.
CO4: Model real time systems using the concepts of RTOS.
CO5: Analyze various examples of real time systems.

Course Contents

Unit-1: Real Time Systems: Introduction to Real Time Systems, Classification of Real Time System, Concept of Computer Control, Types of Real Time Operating Systems.

Unit-2: Requirements for Real Time Systems: Human Computer Interaction in Real Time Systems, Hardware Requirement for Real time Systems, Specialized Processors, Interfaces & Communications.

Unit-3: Modeling Real-Time Systems: Purpose of the Model, Structural Elements, Interfaces, Event-Triggered versus Time-Triggered, Interrupts.

Unit-4: Real Time Languages: Overview of Real Time Languages, Few Real Time Languages, Modula 2 as Real Time Language, Ada as Real Time Language.

Unit-5: Real Time Operating Systems – 1: RTOS Overview, RTOS Components, Task Management & Memory Management, Scheduling Strategies, Commercial Real-time Operating Systems.

Text Book:

1. Phillips A Laptante-Real Time System: Design and Analysis, John Wiley-India Edition-2016.

Reference Books:

1. Rajib Mall- Real time Systems: Theory and Practice Pearson Edition.
2. J.W.S. LuiReal time Systems Pearson Education, New Delhi.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES

DEVI AHILYA UNIVERSITY, INDORE

M. Tech.(IT) 5 Years

Batch 2k18

Semester -IX

JULY-DECEMBER 2022

Sub. Code	Sub. Name	L	T	P	C
IT-901B	Data Mining and Warehousing	3	1	0	4
IT-908A	Object Oriented Analysis and Design	3	1	0	4
IT-902B	IT Project Management	3	1	0	4
IT-903B	Research Methodology	2	0	0	2
	Elective –II 1.IT-913A:Optimization Techniques 2.IT-914:Parallel Processing 3.IT-915:Information Extraction 4,IT-916:Design Patterns 5.IT-917:Distributed System	3	1	0	4
IT-912	Object Oriented Analysis and Design Lab	0	0	4	2
IT-906	Project Phase 1	0	0	4	4
IT-907	Comprehensive Viva	0	0	0	4
					28

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE

M. Tech. (5 Years) IX Semester

IT-901B: Data Mining & Warehousing

Course Outcomes:

CO1: Understand basic concepts of data warehousing and data mining.
CO2: Understand On Line Analytical Processing (OLAP).
CO3: Learn data mining techniques and understand various algorithms.
CO4: Knowledge of data mining tools and ETL tools.

Course Contents:

UNIT I

Data Warehouse, Evolution, Definition, Very large database, Application, Multidimensional Data Model, OLTP V/s Data Warehouse, Warehouse Schema, Data Warehouse Architecture. Data Warehouse Server, Data Warehouse Implementation, Metadata, Data Warehouse Backend Process: Data Extraction, Data Cleaning, Data Transformation, Data Reduction, Data loading and refreshing. ETL and Data warehouse, Metadata.

UNIT II

Structuring/Modeling Issues, Derived Data, Schema Design, Dimension Tables, Fact Table, Star Schema, Snowflake schema, Fact Constellation, De-normalization, Data Partitioning, Data Warehouse and Data Marts. OLAP, Strengths of OLAP, OLTP V/s OLAP, Multidimensional Data, Slicing and Dicing, Roll-up and Drill Down, OLAP queries, Successful Warehouse, Data Warehouse Pitfalls, DW and OLAP Research Issues, Tools.

UNIT III

Fundamentals of data mining, Data Mining definitions, KDD V/s Data Mining, Data Mining Functionalities, From Data Warehousing to Data Mining, DBMS V/s DM, Issues and challenges in Data Mining. Data Mining Primitives, Data Mining Query Languages. Data Mining applications-Case studies.

UNIT IV

Association rules: Methods to discover association rules. Various algorithms to discover association rules like A Priori, partition, Pincer search, Dynamic Itemset Counting Algorithm and more.

UNIT V

Classification Technique: Decision Trees, Web Mining, Web content mining, Web Structure mining, Text mining, Temporal Mining and Spatial Data Mining.

Text Books:

1. ARUN K PUJARI, Data Mining Techniques, University Press
2. JIAWEI HAN & MICHELINE KAMBER, Data Mining – Concepts and Techniques, Harcourt India
3. W. H. Inmon, Building the Data Warehouse, Wiley Dreamtech India Pvt. Ltd
4. RALPH KIMBALL, The Data Warehouse Life cycle Tool kit,WILEY STUDENT EDITION

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Years IX SEMESTER
IT-908A: Object Oriented Analysis and Design

Course Outcomes:

CO1: Understand the importance and basic concepts of object oriented modelling,
CO2: Specify, analyze and design the use case driven requirements for a particular system.
CO3: Model the event driven state of object and transform them into implementation specific layouts.
CO4: Identify, analyze the subsystems, various components and collaborate them

Course Contents:

UNIT I

Object oriented analysis and its design.Software engineering best practices. UML: its road map. Root causes of software failure and symptoms of software failure.

UNIT II

Introduction to the Rational Unified process: Workflow and Lifecycle. Introduction to Object Orientations: problem definition, modeling, using UML modeling mechanisms and there representation.

UNIT III

Requirements Management: key concepts, problem statement, Glossary, use- case model, supplementary specification, functional and nonfunctional requirements.

UNIT IV

Analysis and design overview: architectural analysis-layers. Use case Analysis- Responsibilities, attributes and association, Architectural design.

UNIT V

Describe concurrency, Describe distribution, Use- case design, Subsystem Design, Class design, package.

Reference Books:

1. P.Kruchen, The Rational Unified Process: An Introduction, Pearson EducationAsia, 2000.
2. G. Booch. I. Jacobson, J. Raumbaugh, The Unified Modeling Language-User's Guide, Addison Wesley, 1999.
3. W.Boggs and M. Boggs, Mastering UML with Rational Rose, BPB Publications, 1999.
4. G. Booch, Object oriented Analysis and Design with Applications, Addison Wesley, 1994.
5. M.Blaha, J. Rambaugh, Object oriented modeling and design with UML, Pearson education 2nd edition, 2007.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV,INDORE

M. Tech. (IT) 5 Years, IX Semester

IT-902B: Information Technology & Project Management

Course Outcomes:

CO1: Understand basic concepts of ITPM.
CO2: Develop the concepts of project integration.
CO3: Knowledge of project quality management etc.
CO4: Concepts of Human recourse planning.
CO5: Understand project communication management.
CO6 : Implementation of the concepts of ITPM in real world applications.

Course Contents:

UNIT I

Project, Project Management, Role of the Project Manager, Project Management and Information Technology Context, A system view of Project Management, Understanding the Organization, Stakeholder Management, Project Phases and the Project Life Cycle, Context of Information Technology Projects, Project Management Process Groups, Mapping Process Groups to Knowledge Areas.

UNIT II

Project Integration Management, Strategic Planning and Project Selection, Preliminary Scope statements, Project Scope Management, Scope Planning and Scope Management Plan, Scope Definition and the Project Scope Statement.

UNIT III

Project Time Management, Activity Definition and Sequencing, Activity Resource and Duration Estimating, Schedule Development and Control, Project Cost Management, Cost Estimating, Cost Budgeting, Cost Control.

UNIT IV

Project Quality Management, Quality Planning, Quality Assurance , Quality Control, Project Human Resource Management, Keys to Managing People, Human Resource Planning, Acquiring the Project Team, Developing the Project Team, Managing the Project Team.

UNIT V

Project Communication Management, Communication Planning, Information Distribution, Performance Reporting, Managing Stakeholders, Project Risk Management, Risk Management Planning, Risk Response Planning ,Risk Monitoring and Control, Project Procurement Management, Planning Purchasing and Acquisitions, Planning Contracting, Requesting Seller Responses, Selecting Sellers, Administering the Contract, Closing the Contract

Text Book:

1. Information Technology Project Management, Kathy Schwalbe, 6th Edition, Thomson Course technology.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE

M. Tech. (5 Years) IX Semester

IT-903B : Research Methodology

Course Outcomes:

CO1: Critically analyse research methodologies identified in existing literature
CO2: Distinguish appropriate research designs and methodologies .
CO3: Develop a comprehensive research methodology for a research question.
CO4: Identify different ways to collect qualitative and quantitative data.
CO5: Develop a broad understanding of the range of field-related education theories ,ideas and concepts
CO6: Successfully develop and defend a research proposal

Course Contents:

Unit-1:

The Information Systems and Computing disciplines, Evidence-based practice, The Internet, and Research. Definition and characteristics of Research, Evaluating research, Rigour, and relevance in research, The 6 P of Research, The purpose and products of research: Reasons for doing research, possible products/outcomes of the research, Finding and choosing research topics, Evaluating the purpose and products of research.

Unit-2:

Overview of the Research: A model of the research process, alternatives models of the research process, Evaluating the Research process. Need, types and applications of simulators for researching in CS.

UNIT-3:

Reviewing the literature: Purpose and resources of literature review, The internet, and literature reviews conducting a literature review Evaluating literature review Evaluating literature review. Surveys: Defining surveys, Planning and designing surveys, Grounded theory, and surveys, The internet and surveys, Examples of surveys in IS and computing research, Evaluating survey-based research. Interview, Observations, Questionnaire.

UNIT-4:

Design and Creation: Defining design and creation: planning and conducting design and creation research.Creative computing and digital art.the internet and design and creation research.Examples of designing and creation research in IS and computing, Evaluating design and creation research.Experiments, Case studies, Action Research, Ethnography, Documents.

UNIT-5:

Internet Research: Background to the internet and WWW, Internet Research topics, The internet and literature review The internet and research strategies and methods, Internet research, law and ethics. Participants and Research Ethics: The law and research, Rights of people directly involved, Responsibilities of an ethical researcher, Design, and creation of Project and ethics, Evaluating research ethics.

Text Book:

Briony J Oates, Researching information systems and computing, SAGE South Asia Edition,2007 ISBN: 978-81-7829-759-0

Reference Materials:

1. Research Design. Qualitative, Quantitative, and Mixed Methods Approaches. By John W. Creswell, Fourth Edition. SAGE Publication, 2014
2. The Craft of Research, By Wayne C. Booth, Gregory G. Colomb, Joseph M. Williams, Joseph Bizup, William T. FitzGerald, Third Edition, The University of Chicago Press, 2008
3. The Elements of Style. William Strunk Jr. and E. B. White, Fourth Edition, Pearson, 1999
4. Research Methodology By Panneerselvam R, 2nd Edition, PHI, 2014
5. Selecting Empirical Methods for Software Engineering Research, Steve Easterbrook, Janice Singer, Margaret-Anne Storey, D. Damian, Book Chapter in Guide to Advanced Empirical Software Engineering, Forrest Shull, Janice Singer, and Dag I.K. Sjøberg, Springer 2008

6. Statistical Design and Analysis of Experiments With Applications to Engineering and Science, Robert L. Mason, Second Edition, Wiley InterScience.[Good for Data Analysis and Hypothesis Testing]
7. THE DESIGN OF DESIGN: ESSAYS FROM A COMPUTER SCIENTIST, Frederick P. Brooks Jr., Addison-Wesley Professional, 2010.
8. Serge Demeyer. Research Methods in Computer Science
9. Aaron Sloman. TYPES OF RESEARCH IN COMPUTING SCIENCE, SOFTWARE ENGINEERING, AND ARTIFICIAL INTELLIGENCE

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE
M. Tech. (IT) 5 Years IX SEMESTER
IC-913A: Optimization Techniques

CO1: Understand different techniques of optimization, which help in analyzing the process of decision- making.
CO2: Learn problem formulation of optimization.
CO3: Learn the methods of optimization.
CO4: Exposure of the applications of optimization.
CO5: Understand basic concepts of Linear programming and Dynamic Programming

Course Contents:

UNIT I

Organizational behavior and management. Introduction to O.R. Techniques. Models: - Meaning and classifications.

UNIT II

Linear Programming Problems (L.P.P.), Graphical solutions, Simplex algorithm, Principle of Duality, post optimality analysis. Transportation problem, Initial basic feasible solutions, MODI'S optimality analysis, Degeneracy.

UNIT III

Assignment Problem, traveling Salesmen problem, Branch and Berend techniques. Integer program: - Necessity of Integer programming, use of Branch and Berend Technology for solving Integer Programming problem.

UNIT IV

Queue-theory: - Importance of waiting-line in networking Q-models. Dynamic programming problems.

UNIT V

Theory of Games: - Introduction, pay-off matrix, Minimum-Maximum principle, Saddle-point principle of Dominance. Introduction to Inventory Analysis

Reference Books:

1. Dr. S.D. Sharma, Text Book of Operations Research.
2. N.D. Vora, Quantitative Techniques in management.
3. Kanti Swarup, P.K. Gupta and M.M. Singh , Operations Research..
4. H.A. Taha, Introduction to Operations Research.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES, DAVV, INDORE

M. Tech. (5 Years) IX Semester

IT-914: Parallel processing

Course Outcomes:

CO1: Understand the concepts of design hardware of Parallel systems and its components.

CO2: Learn concept of parallel processing.

CO3: Understand various model of parallel computing.

CO4: Understand distributed computing systems.

Course Contents:

Unit I

Introduction

Parallel Computing, Parallel Architecture, Architectural Classification Scheme, Classification Based on Grain Size, Bernstein Conditions for Detection of Parallelism, Performance Metrics for Processors

Unit II Design aspect of pipelining, ways to improve performance of pipeling, Job sequencing and collision, MAL, Advance pipelining techniques,

SIMD Architecture and Programming Principles, SIMD Parallel Algorithms, Data Mapping and memory in array processors, interconnection network for SIMD, Memory interleaving, Case studies of SIMD parallel Processors.

Unit III Multiprocessor Architectures, Study and Comparison of loosely and tightly coupled multiprocessors. Crossbar switch, Multiport Memory Model, Memory contention and arbitration techniques, Cache coherency and bus snooping.

Unit IV Introduction to Distributed Systems

Definition, Issues, Goals, Types of distributed systems, Distributed System Models, Hardware concepts, Software Concept, Models of Middleware, Services offered by middleware, Client Server model.

Unit V Desirable Features of global Scheduling algorithm, Task assignment approach, Load balancing approach, load sharing approach, Introduction to process management, process migration, Threads, Virtualization, Code Migration.

Text Books

1. Computer Architecture and Parallel Processing – Kai Hwang and Faye A. Briggs, McGraw-Hill
2. Andrew S. Tanenbaum and Maarten Van Steen, "Distributed Systems: Principles and Paradigms, 2nd edition, Pearson Education, Inc., 2007, ISBN: 0-13-239227-5.

INTERNATIONAL INSTITUTE OF PROFESSIONAL STUDIES

DEVI AHILYA UNIVERSITY, INDORE

M. Tech.(IT) 5 Years

Batch 2k18

Semester -X

JANUARY-MAY 2023

Sub. Code	Sub. Name	Credit
IT-1005D	Project Phase 2	12

DEVI AHILYA VISHWAVIDYALAYA, INDORE

(Formerly University of Indore) , NAAC "A" Grade

State University of Madhya Pradesh, India

International Institute of Professional Studies

IIPS

DAVV

International Institute of Professional Studies

Syllabus Of Master of Business Administration (Advertisement and Public Relations) (2YDC)

Academic Session : 2018-20

THE DIRECTOR DESK

Dear Scholar,

Welcome to one of the most prestigious, academic institution in central India offering professional education in Management, Computer Science and Commerce Streams. It has state of art infrastructure, pool of multi discipline faculty and devoted staff that creates a conducive environment for academic excellence and holistic development of yours, paving the way for your bright career prospects. Team IIPS looks forward to contribute towards your successful future life.

Team IIPS-MANAGEMENT

Dr. Anand K. Sapre, Professor, Director Ph D,MBA	**Dr. B.K. Tripathi, Professor** Ph.D (Mgt), MBA(HR), Ph.D (Chem), M.Sc (Chem)	**Dr. Yamini Karmarkar, Reader,** Ph D, FDP-IIMA, MMS
Dr. Geeta Sharma, Reader **Ph D , MBA (Finance), PGDPM&IR**	**Dr. GeetaNema, Reader** Ph D , MBA	**Dr. Jyoti Sharma, Reader** Ph.D., MBA (HR), M.A.(Psy), PGDCABM
CS. Dr. Manish Sitlani, Reader Ph D , ACS, MBA, M Com , LLB (Hons),UGC NET	**Dr. Preeti Singh, Reader** Ph.D.,MBA, B.Ed(DE)	**Dr. Suresh C. Patidar, Reader,** Ph D, MBA, M.Com, CS Inter, UGCNET, LLB(Hons)
Dr. Ravindra Yadav, Sr Lecturer Ph D , FDP-IIMA,MBA, DEE	**Dr. Manminder S. Saluja, Sr Lecturer** Ph D (Economics), M Phil, MA	**Dr. Anshu Bhati, Sr Lecturer** PhD, MBA(APR)
Dr. Pooja Jain, Sr Lecturer PhD, MBA(APR)	**Dr. Sujata Parwani, Sr Lecturer** Ph.D. (Economics) , M.A., M.Phil	**Dr. Kapil Jain, Sr. Lecturer** PhD(Mgt), MBA(Fin), M Phil., M Com.
Dr Surendra Malviya, Lecturer Ph D, MBA (E Com)	**Dr Muskan Karamchandani, Lecturer,** PhD, MBA (MS)	**Dr. Gaurav Purohit, Lecturer** Ph D , MBA (Tourism)
Dr. Nirmala Sawan, Lecturer M Sc, Ph D (Statistics)	**Dr. Shilpa Bagdare, Lecturer** PhD, MBA(Mktg)	**Dr.Navneet Kaur Bhatia,Lecturer** Ph D, MBA (Finance)
Dr. Prerna Kumar, Lecturer, PhD, MBA(Mktg)	**Mr. Naresh Dembla, Lecturer** ME (Comp Sc Engg), MBA, BE	**Dr Shikha Pandey, Lecturer** Ph D, MBA(Tourism)
Dr. Jyoti Jain, Lecturer Ph.D., MBA, MA	**Dr. Neha Chouhan, Lecturer** PhD, MBA	**Mr Ravi Bunkar, Lecturer** MBA (Mktg)
Ms. Monalisa Khatre, Lecturer MBA (Mktg)		

MrYogendra Singh Bawal, Network Administrator Incharge, Administrative Officer M Sc(CS), M Sc. (Elex & Comm.), CCNA	**Dr Suresh Patidar,** Incharge, Placement Officer Ph D, MBA, M.Com, CS Inter, UGCNET, LLB(Hons.)
Dr. Kapil Jain, Ph.D.(Mgt),MBA(Fin), M Phil, M Com. Program Officer, National Service Scheme (NSS) Coordinator, Red Ribbon Club, MPSACS Warden, JN Boy's Hostel	**Dr. Sujata Parwani**, Ph.D. (Economics), M.A., M.Phil, Program Officer, National Service Scheme (NSS)

DAVV at a Glance

There are twenty seven teaching departments offering undergraduate, post-graduate and research programs in sixteen Faculties. It is amongst the first few Universities in the country to introduce innovative and integrated courses in the area of science, engineering, technology, management, law and media. The university has 270 affiliated colleges in addition to University teaching departments and centers. The University provides and nurtures research environment for promoting high quality original research. It offers Ph.D. and M. Phil. Programs in all the subjects**.**

The Hon'ble Governor of the State is the Chancellor of the University. The University functions as per Act, Statutes, Ordinances and Regulations. The Registrar, Examination Controller and Finance Controller of the University assist the Vice Chancellor in administrative, examination and financial matters. The University has duly constituted bodies - Executive Council, Academic Council, Boards of Studies, Finance and other committees for decisions on major academic, administrative and financial matters.

The University is prepared to embrace future challenges, explore new horizons and keep moving ahead on the path of excellence, innovation and enlightenment.

About IIPS

International Institute of Professional Studies (IIPS), a pioneer institute under Devi AhilyaVishwavidyalaya DAVV was established in 1991 to provide a new dimension to professional education. It has emerged as one of the best management schools of Central India. The Institute is located in the sprawling Takshashila campus of the University surrounded by lush green environment. The Institute offers following courses

1. Master of Business Administration (Management Science) (2YDC)
2. Master of Business Administration (Management Science) (5YDC) Integrated Programme
3. Master of Business Administration (Advertisement and Public Relations) (2YDC)
4. Master of Business Administration (Tourism Administration) (5YDC) Integrated programme
5. Bachelor of Commerce (Hons.) (3YDC)
6. Master of Business Administration (Entrepreneurship) (2YDC)
7. Master of Business Administration (Tourism Administration) (2YDC)
8. Master of Computer Application (6YDC) Integrated Programme
9. Master of Technology (Information Technology) (5YDC) Integrated Programme
10. Doctor of Philosophy (PhD) in Management
11. Doctor of Philosophy (PhD) in Computer Science

The lush green campus of the IIPS Includes an academic complex of classrooms, seminar room, an auditorium, a well-equipped library, computer labs and development center and administrative offices. The classrooms are specious and well equipped.

IIPS has one of the finest computing environments among the management Institutions in Central India. The institute provides internet facility through Wi-Fi to the students in campus.

Name of the Programme: MBA (APR)

Program Specific Outcomes

PSO1: Develop cadre of outstanding 'Communications' professionals with broad-based knowledge and critical interpersonal skills to meet the challenges of the corporate society

PSO2: Inculcate understanding of fundamental concepts and theory of business practice through foundation courses.

PSO3: Develop an integrated view of managerial problems and perspectives in communication industry through advanced knowledge of core issues.

PSO4: Subjects imparting advanced knowledge create a clear career interest, they intend to enable the students to develop specific skills and perspectives in their chosen career paths.

PSO5: Develop leadership capabilities to act as change agents and be a source of motivation in the organization they work

PSO6: Preparing students at strategizing.

PSO7: Apply knowledge of leadership and management theories and practice to solve business problems.

PSO8: Foster analytical and critical thinking abilities.

PSO9: Impart values and transformational learnings to evolve as global citizens and responsive human beings.

PSO10: Create awareness and ability to balance personal and life goals

International Institute of Professional Studies
Course curriculum scheme for MBA (APR) 2 Yrs PG Batch 2018

Subject Code	Sem I	Subject Code	Sem II
APR-101 B	Principles of Advertising Management	APR-201	Media Planning
APR-102	Principles of Marketing Management	APR-201A	Public Relations
APR-106	Business Statistics & Quantitative Techniques	APR-202A	Advertising and PR Research
APR-110	Organizational Behavior	APR-203	Creative Writing
APR – 111A	Accounting and Finance for Managers	APR-206 A	Business Communication and Personality Development
APR-112	Integrated Marketing Communications	APR-209	Mass Communication
APR-113	Fundamentals of Management	APR-212	Client Servicing & Account Planning
APR- 108	Comprehensive Viva	APR- 208	Comprehensive Viva
	7 subjects * 4 credits = 28 credits		**7 subjects * 4 credits = 28 credits**

Subject Code	Proposed For 2K18 onwards Sem. III	Subject Code	Proposed For 2K18 onwards Sem. IV
APR-301C	Corporate Communication.	APR-401A	Rural & Retail Marketing
APR-302	Commercial Designing	APR-402B	Marketing Strategies
APR-302B	Consumer Behavior	APR-403	Direct Marketing & Event Management
APR-306B	Computer Graphics	APR-408	Brand Management
APR-308	Service Marketing.	APR-415	Audio -Visual Production
APR-312/APR-314A	Decision Making Skills/Dissertation (Elective)	APR – 416	Digital Marketing
APR-307	Comprehensive Viva	APR- 406	Comprehensive Viva
	6 subjects * 4 credits = 24 credits		**6 subjects * 4 credits = 24 credits**

Total Credits (For Batch 2018 onwards) 104 credits
Virtual credits of CV in I,II, III and IV = 4*4 = 16 credits **GRAND TOTAL = 120 Credits**

Name of the Programme: MBA (APR)

MBA (APR) Semester – I

APR101B
Principles of Advertising Management

Course Outcomes

CO1: Understanding advertising management process and its strategies.
CO2: Creating ability to develop advertising plan.
CO3: Understanding evolution of advertising and role of marketing mix in advertising.
CO4: Understanding advertising objectives and its classification.
CO5: Understanding advertising communication process and creating advertisement.
CO6: Measuring advertising effectiveness.
CO7: Understanding digital advertising and its types.
CO8: Developing understanding of departments of advertising agency and client agency relationship.

Course Contents

1. Evolution of advertising, Importance of advertising, an overview of the ad scene in India, Introduction to advertising management, Advertising as a Marketing communication element, Role of advertising in marketing mix.
2. Functions/ roles of advertising, benefits of advertising, Classification /types of advertising: By target audience, by geographic area, by medium, by purpose. Advertising objectives, DAGMAR approach, Nature of demand – use of advertising for stimulating primary & selective demand, The Advertising Spiral
3 Promotion and communication process – Triangle of communication, AIDA model, Hierarchy of effects model, Innovation adoption model, 5W's principle, Lavidge& Steiner model
4. Creative execution: building advertisement – copy, illustration, layout Advertising Creative approaches and styles. Campaign Planning – defining campaign planning, various stages in campaign planning
5.Measuring advertising effectiveness. Advertising environment –SEC, Social issues, Ethical issues, Economic issues, Legal issues, Competition act 2002, Ruling of CCI,
6. Digital Advertising: concepts, interactive advertising, types of digital advertising,
7.Introduction to Ad agency, Basic departments of Advertising Agency, Organizational Structure, Functions, Types of Advertsing agency, Compensation of ad agency, Client – Agency Relationship.

Text Books

1. Advertising Procedures – Kleppner, 18thInternational Edition, Prentice Hall, New Jersey, U.SA.
2. Advertising Management - Batra, Aaker and Myers, 5thEd.Pearson Education, New Delhi, India

Suggested Readings

1. Advertising Planning and Implementation (2006) Sharma, Sangeeta, Singh Raghuvir, Prentice Hall of India, New Delhi, India

Websites

www.agencyfaqs.com ,and various advertising blogs

APR 102
Principles of Marketing Management

Course Outcomes

CO1: State the role and functions of marketing within a range of organization
CO2: Describe key marketing concepts, theories and techniques for analyzing a variety of marketing situations
CO3: Identify and demonstrate the dynamic nature of the environment in which marketing decisions are taken.
CO4: Analyze the relevance of marketing concepts and theories in evaluating the impacts of environmental changes on marketing planning, strategies and practices
CO5: Understand concept of marketing mix as a framework for marketing decision making
CO6: Access skills that enable students to target and secure work placements

Course Contents

1. **Marketing concepts**: Customer value and satisfaction, customer delight, orientation of marketing concepts: Production concept, product concept, selling concept, marketing concept and societal marketing concept, value chain

2. **Understanding the marketing environment**: Scanning the environment, Micro-environment, Macro-environment.

3.Marketing Segmentation, Targeting and Positioning: Market segmentation, bases of market segmentation, requirements of effective segmentation, evaluating the market segments, market targeting: Undifferentiated marketing, single segment and multi-segment structures, concept of Positioning.

4.Marketing research: Meaning, Process.

5. Consumer Behavior: Meaning, Factors Affecting buying behavior, Consumer buying behavior process.

6. Elements of Marketing Mix

6.1Product Decision: Objectives, core, tangible and augmented products, Product classification, product mix, product life cycle and strategies, new product development process, Introduction and factors contributing to the growth of packaging, Introduction of labeling.

6.2.Pricing Decisions: Factors affecting price, pricing methods, Price adaptation strategies.

6.3.Distribution Decisions: Importance and functions of Distribution channels, Considerations in distribution channel decision, distribution channel members, intensity of distribution, channel conflict and channel management.

6.4.Promotion Decisions: A view of Communication process, developing effective communication, Promotion mix elements.

7. **Emerging trends in marketing**: An introduction to internet marketing, multilevel marketing, CRM, green marketing, social media marketing, rural marketing, experiential marketing and event marketing, e- marketing.

Text Readings:

1. Philip Kotler, Principles of Marketing Management, New Delhi, Prentice Hall of India.

Suggested readings:

1. Ramaswamy and Namakumari, "Marketing Management", Macmillan India.
2. RajanSaxena,"Marketing Management", Tata McGraw Hill.

APR - 106

Business Statistics and Quantitative Techniques

Course Outcomes:

BUSINESS STATISTICS:

BY Understanding BUSINESS STATISTICS, students are able to learn, apply the principle and concepts of statistics commercially and are able to take decisions and are able to find:

CO1: How to calculate and apply measures of central tendencies (Mean, median, mode) and measures of dispersion (standard deviation and mean deviation) -- grouped and ungrouped data

CO2: How to apply discrete and continuous probability distributions to various business problems.

CO3: Perform Test of Hypothesis as well as calculate confidence interval for a population parameter for single sample and two sample cases. Understand the concept of p-values.

CO4: Learn parametric (t-test and z-test and also perform ANOVA and F-test) and non-parametric test such as the Chi-Square, kruskalwallis test for Independence as well as Goodness of Fit.

CO5: Compute and interpret the results of Simple and Bivariate Regression and Correlation Analysis, for forecasting

QUANTITATIVE TECHNIQUES:

CO1: Apply the most widely used quantitative techniques in decision making.

CO2: Grasps the wide applicability of quantitative techniques.

CO3:Apply mathematics to technical problems in business management.

CO4: Appreciate the value of mathematical reasoning and analysis in daily life situation.

CO5: Realize the Importance of certain mathematical techniques in getting the best possible solution to a problem involving limited resources.

CO6: Apply quantitative techniques to solve a variety of business problems for cost-benefit analysis

CO7: Use various Operations Research models like LPP, Network analysis, game theory, transportation and assignment models to solve business problems

CO8: Able to take better decisions in their organizations by applying concepts and methodology of various quantitative techniques.

Course Contents

1.1 Introduction to Statistics: Definition of Statistics, Functions, Scope , Applications, Role of Statistics in Management Decisions, Limitations of Statistics, Measures of central tendencies and its applications, Measures dispersion and its application.

1.2 Quantitative Techniques and Operations Research: Meaning, Scope of QT and OR, Methodology and models of QT/OR, Applications, Advantages and Limitations of QT/OR.

2. Probability Theory and Probability Distributions: Concepts of probability and its types, Baye's Theorem, Binomial, Poisson and Normal distributions- their characteristics and applications

3. Correlation & Regression: Correlation (Karl Pearson's and Spearman's Coefficient), Methods of computing simple correlation, regression and regression equations.

4. Time Series: Measurement of trend (moving average, exponential smoothing and least squares method) and its application in Business forecasting.

5. Linear Programming Problem (LPP): Meaning, formulation of LPP, Graphical method, Simplex Method of solving LPP.

6. Transportation and Assignment Problem: (Minimization and Maximization, balanced and unbalanced), Solution of Transportation problem by NWC, LC,VAM. Optimality test of solution by MODI Method. Solution of assignment problems using Hungarian Method.
7. Replacement Models and Game Theory: Introduction, Scope in Management, Individual and Group Replacement model, Introduction to Games, Maximin and Minimax Principles, Pure and Mixed Strategies, Solutions of Games using – Algebraic and Graphical Methods.

Text Reading

1.Richard I. Levin and D.S. Rubin, "**Statistics for Management"**, New Delhi: Prentice Hall of India, 2000
2. S. P. Gupta, "**Statistical Methods",** New Delhi, Sultan Chand and Sons, 2001
3. S. D. Sharma, "**Operations Research"**, Meerut: Kedar Nath Ram Nath and Co., 8th edn., 2002.
4. N. D. Vohra. "**Quantitative Techniques"**, New Delhi: Tata McGraw Hill Publications, 15th Ed., 2000.
5. V. K. Kapoor, "**Problems and Solutions in Operations Research"**, New Delhi: Sultan Chand and Sons, 2001.

Suggested Readings

1. D. C. Sancheti and V. K. Kapoor, "**Statistics: Theory, Methods and Applications",** New Delhi: Sultan Chand and Sons., 2001
2. D.N. Elhance, Veena Elhance and B. M. Aggrawal, "**Fundamentals of Statistics",Allahabad: Kitab Mahal, 1996**
3. P. K. Gupta and D. S. Hira, "**Operations Research",** New Delhi: Sultan Chand Publications, 2000.
4. C. R. Kothari, "**Operations Research Quantitative Techniques",** Delhi: Vikas Publications, 3rd Ed., 2001.

APR-110

Organizational Behavior

Course Outcomes:

CO1: Understand Evolution of Organizationbehavior in terms of cognitive, behavioristic and social cognitive aspects.

CO2: Understanding and application of factors affecting motivation with its theories beneficial for today's competitive environment today.

CO3: Understand factors affecting organizationalbehavior shaping Personality, Perception and Learning processes of employees.

CO4: Understand Interpersonal Processes and Behaviors, Team Development, Foundations of Group Behavior and Group Dynamics, Developing Work Teams, Team Effectiveness & Team Building for organizational benefit.

CO5: Knowhow of organizational systems and organizational change process, factors affecting change and its coping mechanism.

CO6: Understanding and application of Contemporary theories of leadership, Johari Window, Transactional Analysis and Success stories of today's Global and Indian leaders.

Course Contents

1 Fundamentals of OB:

Definition, scope and importance of OB, Evolution of OB, Theoretical framework (cognitive, behavioristic and social cognitive), Limitations of OB.

2 Individual Process:

2.1 Attitude: Importance of attitude in an organization, Right Attitude, Components of attitude, Relationship between behavior and attitude, Job attitude, Barriers to changing attitudes

2.2 Personality and values: Definition and importance of Personality for performance, The Myers-Briggs Type Indicator and The Big Five personality model, Significant personality traits suitable to the workplace (personality & job – fit theory), Personality Tests and their practical applications.

3 Behavior :

3.1 Perception: Meaning and concept of perception, Factors influencing perception, Selective perception, Attribution theory, Perceptual process, Social perception, Barriers of Perception.

3.2 Motivation: Definition & Concept of Motive & Motivation, The Content Theories of Motivation (Maslow's Need Hierarchy & Herzberg's Two Factor model Theory), The Process Theories (Vroom's expectancy Theory & Porter Lawler model), Contemporary Theories- Equity Theory of Work Motivation 3.3 Learning- Definition, Types and applicability

4 Interpersonal Processes and Behavior, Team Development :

Foundations of Group Behavior: The Meaning of Group & Group behavior & Group Dynamics, Types of Groups, The Five -Stage Model of Group Development, Managing Teams: Why Work Teams, Work Teams in Organization, Developing Work Teams, Team Effectiveness & Team Building

5 Organization System:

Organizational Culture: Meaning & Definition of Organizational Culture, Creating & Sustaining Organizational Culture, Types of Culture (Strong vs. Weak Culture, Soft vs. Hard Culture & formal vs. Informal Culture) , Creating Positive Organizational Culture, Concept of Workplace Spirituality.

6 Managing Change :

6.1 Organizational Change: Meaning, definition & Nature of Organizational Change, Types of organizational change, Forces that acts as stimulants to change.

6.2 Implementing Organizational Change: How to overcome the Resistance to Change, Kurt Lewin's-Three step model, Seven Stage model of Change & Kotter's Eight-Step plan for Implementing Change, Dealing with Individual & Group Resistance.

7 Leadership Development

Leadership: Concept of Leadership, Styles of Leadership, Trait Approach, Contingency leadership Approach, Contemporary leadership, Concept of transformational leadership, Contemporary theories of

leadership, Johari Window, Transactional Analysis, Success stories of today's Global and Indian leaders.

Text Books

1. Organizational Behaviour by Robins 2. Organizational Behaviour by Nelson & Quick
3 Organizational Behaviour by Fred Luthans 4 .OrganizationalBehaviour by Stephen Robins, Timothy Judge, Neharika Vohra 5. • Organizational Behaviour by K Ashwathappa

Reference Books

1. Understanding OB by Uday Pareek 2. Change & Knowledge Management by Janakiram, Ravindra and Shubha Murlidhar 3. • Organization Behaviour-Niraj Kumar

Websites

• http://papers.ssrn.com&http://www.nwlink.com/~donclark/leader/leadob.html

APR- 111A
Accounting and Finance for Managers

Course outcomes:

Students who successfully complete this course will be able to:

CO1: Explain the role of accounting in advertising and public relation organisation.

CO2: Discuss and apply sustainability principles and ethics to financial decision making in advertising and public relation organisation.

CO3: Analyse, evaluate business transactions and communicate financial information to a range of stakeholders.

CO4: Interpret, analyse and use information contained in published financial reports for making informed decisions about the allocation of financial resources.

CO5: Apply basic cost and management accounting techniques for business planning, control decision making in advertising and public relation organisation.

CO6: Understand the functions and importance of capital market.

Course Contents

1. INTRODUCTION TO DOUBLE ENTRY SYSTEM OF ACCOUNTS:

Concept of Double Entry System (DES) of accounting, DES account cycle, Golden Rules of DES. Introduction to Journal, Ledger & Trial Balance.

2. **FINANCIAL STATEMENTS:**

Preparation of Financial Statements: An Introduction to Financial Statement & related Concepts. Preparation of Financial accounts without adjustments.

3. **FINANCIAL STATEMENT ANALYSIS**:

Concept, Importance, Assumptions and Limitations, Managerial Uses of Ratios, Numerical Problems.

4. **COST CONCEPTS**:

Cost Concept and Classification, Costing for Service Industry, CVP Analysis- Concept and Numericals

5. **MARGINAL COSTING AND DECISION MAKING**:

Selling Price Decision, Make or Buy Decision

6. **BUDGETING AND BUDGETORY CONTROL:**

Concept and Types of Budgets, Role and Significance of Budgetary Control in Service Industry, Preparation of Cash and Flexible Budgets, Concepts of Zero based Budgeting.

7. PERSONAL FINANCE:

Introduction and Function of Capital Market, Primary capital Market and Secondary Capital Market, Shares and Debenture, Mutual Fund Concept and Benefit, Principles of Insurance in brief, General and Life Insurance Products.

TEXT BOOK & REFERENCES:

1. Management Accounting by I M Pandey, Vikas Publication
2. Management Accounting by Khan & Jain, Published by Mc Grawa Hill Education
3. Accounting for Management by Dinesh K Khatri, Published by Mc Graw Hill Education
4. Cost and Management Accounting by M N Arora, Vikas Publication

APR-112
Integrated Marketing Communications

Course Outcomes:

CO1: Understand the concept of Integrated Marketing Communication and its role in Marketing
CO2: Discuss various components of IMC campaign
CO3: Understand role of advertising and Public Relations in IMC
CO4: Discuss role, tools and importance of sales promotion in today's era as IMC component
CO5: Discuss role and tools of Direct Marketing in IMC
CO6: Understandinginfluence of Personal Selling on customer and its importance in IMC
CO7: Explain the role of unconventional media and tools in communication
CO8: Discuss the importance of issues affecting International marketing Communications

Course contents:

1. **Introduction to Integrated Marketing Communication:** The Promotional –Mix, Role of Marketing Communications in Marketing, Evolution and Importance of Integrated Marketing Communication, An overview of IMC components, Understanding the Communication process - Consumer Response Hierarchy, FCB planning Model, Budgeting and IMC campaign coordination
2. **Advertising as an IMC Tool:** Advertising concept, Advertising campaign, and coordination of Advertising with other IMC tools
3. **Public Relations and Publicity:** The concept, Relation between corporate Advertising and Public Relations, Public Relations and damage control
4. **Sales Promotion as an Integration tool:** Importance and growth of Sales promotions, Objectives and Sales Promotions Types, Risks of Sales Promotions
5. **Personal Selling and Direct Marketing:** Personal selling -Role of Personal Selling, Personal Selling Process, Personal Selling as an individual communication tool as compared to other communication mediums, Direct marketing - importance and applications, Types of direct marketing
6. **Events sponsorships** - Meaning, Reasons of growth of sponsorships, Types of sponsorships, **Unconventional Promotional Media -** Word-of-Mouth Advertising, In-film promotion, Social Media Marketing,
7. **International Marketing Communication:** Role of international marketing communication in international marketing, Cultural and other differences, Global Vs. localized marketing communications.

Text Books:

1. Advertising and Promotion: An IMC perspective- Belch, Belch, Tata McGrawHill
2. Advertising and Promotions: An IMC Perspective- Kruti Shah and Alan D'Souza, Tata McGrawHil

Reference Books:

1. Wells, W. D., Moriarty, S., & Burnett, J (2007). Advertising: Principles and Practice. New Delhi: Pearson Education India.
2. Clow, K. E., & Baack, D (2007). Integrated advertising, promotion and marketing communication. New Delhi: Pearson Education India.
3. Aaker, A. D., Batra, R. & Myers, J. G. (2009). Advertising Management, 5th Edition. Pearson Education India.

APR-113
Fundamental of Management

Course Outcomes:

CO1: Gain an understanding of the functions and responsibilities of the manager and providing them with necessary tools and techniques to be used in the performance of managerial job.
CO2: Examine the management theory with corresponding opportunities for application of these ideas in real world situations.
CO3: Understand the managerial functions of Assessing, Planning, Organizing and Controlling. Both traditional and edge approaches are introduced and applied.
CO4: Understand the ethical implications of managerial action and inaction.

Course Contents:

Unit I - Management: Concept and definition, Functions of Management, Principles of Management, Management skills, Evolution of Management

Unit II - Planning : Concept and Nature of Planning, Types of Planning, Planning Process, Implementation of Plans, Advantages and limitations of Planning.

Unit III - MBO & Decision Making: Concept and Nature of Objectives, Management by Objectives Benefits and weaknesses of MBO, Types of Decision making, Decision making process.

Unit IV - Organizing: Nature of Organizing, Organization structure, The Span of Management and, Level of Authority, Departmentation, Line and Staff Relationship,

Unit V-Directing: Nature and Purpose of Directing, Motivation, Leadership and Communication

Unit VI - Staffing: Human Resource Management and selection, Performance appraisal and career strategy, managing change through manager and organization development

Unit VII - Coordination and Control: Concept of coordination, types, process of Control, Principles or Requirements of Good Control System, Techniques of Controlling.

Case studies one case in each unit.

Text Readings

1. Harold Koontz, O'Donnell and Heinz Weihrich, "**Essentials of Management"**, New Delhi, Tata McGraw Hill.
2. R. D. Agrawal, "**Organization and Management**", New Delhi, Tata McGraw Hill, 1995.

Suggested Readings

1. Harold Koontz, Heinz Weihrich, "**Management: A Global Perspective"**, New Delhi, McGraw Hill,
2. Robert Krietner, "**Management",** Houghton Miffin Co.,
3. Hellriegel/ Jackson/Slocum," Management: A competency based approach", Thomson, South western

MBA (APR) Semester – II

APR-201
Media Planning

Course Outcomes:

CO1: Know-how of valid sources of mediainformation.
CO2: A grasp on the need of the agencies and departments specialized in Mediafunctions.
CO3: Generating crisp Media Brief and comprehending thesame.
CO4: Understanding Media Eco-Systemincluding thebrand, Itsmarkets, Itscompetition, Itsaudience.
CO4: Special skillson Creating MediaInnovation, Converting Media into amessage, and Cutting through mediaclutter.
CO5: Developing efficient and effective mediastrategy.
CO6: Special skillstobring a synergy amongst variousmedia and leverage changing mediatrends.
CO7: Executing the strategy with matching media plan andscheduling.
CO8: Using Media Buying as a tool to counter theCompetition.
CO9: Rare skill of leveraging BIGPROPERTIES.

Course Contents:

Unit I - An Overview of Indian Media Scenario

Understanding Media and its landscape, ownership & sociology; Defining Media Planning; The shift of Media Planning function from Advertising Agencies to independent Buying Agencies – The ramifications; Major media buying agencies and agency affiliations, Sources of Media Information: Population census, Annual Economic Survey, India-Year book, INFA Year Book, Audit Bureau of Circulation, Indian Newspaper Society (INS) handbook, Syndicated Research, Indian Readership Survey (IRS), Database for Electronic Media, BARC, Data on market share.

Unit II - Media Characteristics

Media Brief; Marketing information checklist; Marketing problem; Objectives; Product category information; Geography/location; Seasonality/timing; Target audience

Unit III - Media Planning and its Application

Defining media objectives, target audience objectives, distribution objectives, media terms, media weight theories,
Applications: Analysis, techniques and implication of a media plan,
Information Needs for Making a Media Plan: Marketing and copy background, marketing objectives, rationale, media strategy, gross impression analysis, media rationale,
Preparing a Media Brief: Marketing information checklist, the objectives, product category information, geographic location, seasonality and target audience.

Unit IV - Understanding Media Objectives, Strategy, Scheduling Strategy and Media Plan

Setting Media Objectives: Determining media objectives, budget constraints, creative constraints, reach and frequency, choosing the right media/media options and evaluation techniques, determining media values, qualitative value of media, ad positions within media, evaluating and selecting media vehicles.
Developing Media Strategy: Consideration in strategy planning, the competitive strategy, formulating strategy when budget is too small. Seasonal effect of media effectiveness

Scheduling Strategy and Tactics: The media flowchart (schedule), pulsing, fighting continuous media plan
Developing a Media Plan

Unit V - Budgeting and Evaluation Plan
Budgeting -Setting and allocating the budget, different methods of setting budget-competitive spending, objective and task, expenditure per rate, factors affecting the size of the budget; Presentation of media plan to a client and evaluation of media plan; Media matrix and measurability and global challenges; Differences between brand matrix and media matrix

Evaluation of Media Plan - Retrieval and interpretation of data; Audience audit techniques; People meter; single source data; geo-demographic measurement; Practical session on media information retrieval-IRS et al; Learning of relevant software

Unit VI - Digital Media Planning
Concepts and Process; Understanding Google AdWords – Choosing keywords, setting budgets, payment methods and optimization; Social Media Ad Planning – Understanding paid ad platforms, setting budgets, payment methods and monitoring; Real time campaign optimization

Unit VII - Media Buying
Media Buying Process : Structure, Roles and Responsibilities; Steps in Buying Process and Objectives of a Media Buyer; New Trends in Media Buying, Problems in Media Buying, Evaluating Media Buys; Media negotiations and strategies; Media Costs; Media Buying Problems; Considerations in Planning and Buying;
Media buying and planning for Digital Media

SUGGESTED READINGS:
BARBAN ARNOLD: Media Planning (USA NTC Business Book, 1997)
BARTON ET AL: Essentials of Media Planning (USA NTC Business Book, 1993)
COYNE RICHARD: Turning of Place: Sociable Space and Perspective Digital Media (UK: MIT Press, 2010)
DOMINICK JOSEPH R: The Dynamics of Mass Communication: Media in Digital Age (US: McGraw Hill Companies, 2007)
MENON ARPITA: Media Planning and Buying Principles and Practice in the Indian Context (India: Tata McGraw Hill Education Pvt. Ltd, 2010)
ROBERT W HALL: Media Math: Basic Technique of Media Evaluation (Illinois NTS Business Books 1995)
SISSORS AND MUMBA: Advertising Media Planning (USA NTC Business Book, 1966)
SURMANEK (JIM): Introduction to Advertising Media (USA NTC Business Book, 1997)
SURMANEK (JIM): Media Planning 3rd edition (USA NTC Business Book, 1997)
TURK (PETER B): Advertising Media Source Book, (USA NTC Business Book, 1997)
STAIGER JANET & HAKE SABINE: Convergence Media History (UK: Rutledge Publishing, 2009)

APR-201A
Public Relations

Course Outcomes:

CO 1: Making student understand concept, scope and functions of Public Relations (PR)
CO 2: Understand PR process and role of public opinion
CO 3: Understand PR Practices
CO 4: Learning importance of PR Stakeholders and maintaining relations
CO 5: Understand characteristics of traditional and New Media PR tools
CO 6: Describe evolving role of PR in different sectors in country
CO 7: Demonstrate role of PR in crisis communication

Course Contents:

Unit 1 Understanding PR

1.1 PR –Concepts, Definitions, Role, Scope, Functions
1.2 Difference and Similarities between PR, Marketing and Advertising and how they are relevant to each other
1.3 Understanding various concepts, viz., PR, publicity and advertising
1.4 Apex Bodies in PR
1.5 Theories and Models in PR

Unit 2 PR Practice and Process

2.1 The Power of public opinion and persuasion
2.2 Public relations process- Preparations, Implementations and Evaluation, RACE
2.3 In house PR- Structure, Scope, Role & Function
2.4 PR Consultancy- Structure, Role, Scope & Function
2.5 Difference between In-house PR and a PR Consultancy

Unit 3 Understanding PR stakeholders

3.1 Defining publics/stakeholders
3.2 Publics- their types and characteristics
3.3 Internal communication
3.4 Media relations, working with the Media, ways to maintain good media relations.
3.5 Community Relations, Definition of Community, Identifying Community, Advantages/Disadvantages of good/bad community relations program, identifying local media for community relations, community relations tools
3.6 Other Publics and their importance

Unit 4 PR Tools (Traditional)

4.1 PR and Media – PR as a source of news, Tools of Media relations: Press conference, Press release, Media tours, Video news release, Feature writing, Blog writing etc. Selection of media in reaching out to various publics
4.2 Corporate Advertising, Corporate Films, Periodicals/ In house magazines, Opinion Leaders, Events, Sponsorships, Verbal and Written Communication Tools

Unit 5 Public Relations Tools (New Media)

5.1 New Media- Definitions, The Power of New Media
5.2 PR in the age of Digital Media: Scope, Challenges and Opportunities
5.3 PR Tools of the Internet – Uses and their Online Application (online Media relations, online Media releases)
5.4 Relationship Building in an Internet Age - How organizations use websites, social networking sites and other digital platforms to communicate with their stakeholders and media
5.5 Blogging Role, Scope and Influence on Image Management

Unit 6 PR's Evolving Role -Changing Trends

6.1 Government PR departments, public affairs
6.2 PR in Social Sector
6.3 Entertainment and Celebrity PR
6.4 Introduction to PR awards
6.5 Laws and Ethics in PR

Unit 7 Crisis Communication - Role of PR in Crisis Management, Interacting with Media in Critical Times.

Text Readings

1. Public Relations Concepts, Strategies and Tools- Jethwaney, Sarkar and Verma
2. Public Relations for your business- Frank Jefkins
3. Effective Public Relations- Cutlip, Center and Broom

APR-202A
Advertising and PR Research

Course Outcomes:

CO1: Understand the concept and process of marketing, advertising and PR research in business environment
CO2: Know the use of tools and techniques for explorative, conclusive and causal research
CO3: Understand the concept of measurement in empirical systems
CO4: Use statistical techniques for analysis of research data

Course Contents:

I. Research Introduction and Understanding Research Methodology: Meaning and purpose of research, Objective of research, Types of the research, Approaches to research, Process of the research, Limitation of research, Secondary Research in Advertising and PR – Syndicated Research, Online Resources, Preparation of Research Design, Conducting detailed Literature Review, Sampling and Sampling Techniques

II. Questionnaire Design and Data Collection: Qualitative and Quantitative, Types of Questions – pros and cons, understanding variables and treatment, Attitude measurement and scale; Methods of collection data and their advantages and disadvantages; Establishing the validity and reliability of a research instrument.

III. Advertising Research: Role and Importance of Research in Advertising; Scope of Research in Advertising, Types of Advertising Research, Positioning Research, Ad Effectiveness Studies (Recall, Awareness, Comprehension And Empathy), Ad Test (Print And Audio- Visual) – Concept Testing, Story Board Testing, Copy Testing, TVC Testing, Audience Research- Tracking (Ad Spend Tracking And Modeling)

IV. Public Relations Research: Role and Importance of Research in Public Relations, Various Areas of Research in Public Relations, Opinion Surveys, Benchmark Research Communications, etc; Attitude Research/ Usage Research, Content Analysis

V. Data Analysis I: Introduction to SPSS (Statistical Package for the Social Sciences) application; Data Management, Preparation and descriptive analytics using spreadsheet and SPSS including data cleaning, coding, data structuring, entry, Frequency, Percentages, One Way, Cross Tabs, Central Tendencies, Dispersion, Tests of Significance.

VI. Data Analysis II: Hypothesis testing: Concept, Methodology, Types of errors, Important parametric and non-parametric tests for single, two and multiple group comparison. Test Normal distribution, f-test, t-test, z-test and chi square test. ANOVA, Correlation, Regression, Factor Analysis, Cluster Analysis

II. Report Writing: Significance of Report Writing; Steps in Report Writing; Layout of Report and Precautions in Writing Research Reports; Writing Bibliography.

Reference and Text books:

1. Marketing Research by Naresh K Malhotra &SatyabhushanDash, Publisher Pearson
2. Advertsing and Public Relations Research by Donald W. Jugenheimer
3. Marketing Research by Gilbert & Dawn Published by Thomson
4. Marketing Research – Boyd, Westfall 5. Marketing Research - G. C. Beri 6. Marketing Research – Luck, Rubin 7. Marketing Research in Marketing Environment – Dillon, Firtle
8. Research Methodology – D. H. McBurney 9. Marketing Research – Green, Tull, Albaum

APR-203
Creative Writing

Course Outcomes:

CO1: Making student think out of box and conveying ideas convincingly irrespective of the media.
CO2: Weighing various options to convey an idea to select the most effective.
CO3: Writing effectively for different media
CO4: Writing quality essays, articles, features, press releases and film reviews.
CO5: Writing stories, storyboarding, and dialogues.
CO6: Writing editorials, diaries and newsletters.
CO7: Understanding consumer psychology and creating ads, hoardings, Radio & TV commercials.
CO8: Brainstorming and script writing.
CO9: Column writing, blogs and review writing.
CO10: Writing reports and memoirs.
CO11: Understanding trademark and copyright.

Course Contents

Unit – I

What is creativity, Divergent Thinking & Convergent Thinking, Various ways of presenting a thought.The ideological functions of popular genres. Narrative arc exercise with genre (group exercise).Exploration of character arc and character indicators such as clothes, views, voice and opinions of others. Writing for different media**.**Beyond News Writing. Types and Areas of Beyond News Writing, Necessity and Importance of Beyond News Writing. New Trends in Beyond News Writing.

Unit – II

Article and essay- Definition and Difference. Writing skill and Important Points. Difference between Article and Feature, Types of Feature, Qualities of a Feature Writer, Factors that promote creativity. Barriers of Creativity, Media Culture**,** Effective writing - official purpose e.g. Press Release etc. Central idea, contents a research and development, develop the central idea, editing, revising, creating continuity, explaining, observing standard practices of effective writing, communicating facts, film critic.

Unit - III

Angles and points of view in stories, Character delineation and development.Origins and elements of comedy,the importance of the visual in film and at visual storytelling. Storyboarding exercise. basic film structure and the importance of professional script presentation.

As well as enhancing knowledge of film, this exercise develops requisite skills for telling stories, making them interesting and holding an audience's attention.importance of dialogue for character delineation as well as for conveying information. We study styles and techniques in dialogue writing. Dialogue writing exercise.

Unit – IV

Significance of Editorial Writing.Ideas and Analysis in Editorial Writing.Editorial Writing and Campaigning. Special Occasions Articles : Definition, Necessity.Diary and News Letter.What is copy writing, How is it different from Journalism, Feature writing.

Unit V

Understanding consumer psychology, Approach to Press Ads, Headlines, sub-head; slogan. Writing for outdoor media: Hoarding, Writing Radio & TV commercials. - Idea brainstorming, research for scripting formats, developing the idea, content treatment shot breakdown Script format - wide margin format, variety show format, double column format and checklist for script revision.

Unit – VI

Column Writing: Definition and Types. Importance of Column Writing and Necessity. Art Reviews. Music, Dance, Drama, Film Reviews. Book Reviews.SportsReviews.Economic Reviews. Commercials and announcements - ethical considerations, length of commercials and announcements, techniques of writing commercials, Placements of commercials, commercial formats, Creative blogs, Profile writing.

Unit – VII

Reportage Travel and Memoirs: Definition and Differences. Study of Important Travel Reportage. Importance of Reportage in Covering leisure and Life Style Social Sciences Studies.New Emerging Trends in Entertainment.Writing News: Press, Radio, TV, Presentation for news.Trademark, Copyright**.**

Text Readings

1. Principles of Advertising - Chunawala
2. Advertising Procedure – Otto Kleppner.
3. Scripts writing for Radio & TV – Arthur ASA Berger
4. Encyclopedia of Creativity.

Suggested Readings

1. Professional Journalism – M. V. Kamath.
2. The Journalist's Handbook – M. V. Kamath

APR-206A

Business Communication & Personality Development

Course Outcomes:

CO1: Nurture students into well balanced and positive thinking human beings. Developing students into professionals, who are capable of facing new challenges and becoming the winners in Life.

CO2: Enhancing Communication skills by practicing functions, processes and models.

CO3: Understanding of Effective Communication, Barriers to Effective Communication, order, advice, suggestions, motivation, persuasion, warning, education, raising morale, conflicts and negotiation, group decision making.

CO4: Practicingof various activities using dimensions of Communication- Upward, Downward, Lateral/Horizontal, Diagonal, grapevine, consensus, Channels of Communication- Formal, Informal; Patterns of Communication; Media of Communication-Verbal, Nonverbal.

CO5: Understanding the importance and usage of Listening skills by various interactive session developing students into a perfect personality in Interpersonal Communication like Transactional Analysis, Johari Window.

CO6: Understanding and practising complete knowhow of Business Correspondence its Layout, planning, inquiries and replies, complaints, follow up, circulars, notices, goodwill letters, applications for employment, Report Writing, Public Speaking: Speeches and presentations, Interviews, Professional use of the telephone.

CO7: Understanding and practising Self Improvement, Developing positive attitudes, Self-Motivation, Time Management, Stress management, Modern Manners for developed personalities.

Course Contents:

1. Communication: meaning, nature, definitions, features, processes, models, functions

Objectives of Effective Communication: information, Barriers to Effective Communication, order, advice, suggestions, motivation, persuasion, warning, education, raising morale, conflicts and negotiation, group decision making

2. Dimensions of Communication: Upward, Downward, Lateral/Horizontal, Diagonal, grapevine, consensus

3. Channels of Communication: Formal, Informal; Patterns of Communication; Media of Communication: Verbal, Nonverbal.

4. Listening, Interpersonal Communication: Transactional Analysis, Johari Window

5. Business Correspondence: Layout, planning, inquiries and replies, complaints, follow up, circulars, notices, goodwill letters, applications for employment

6. Report Writing, Public Speaking: Speeches and presentations, Interviews, Professional use of the telephone

7. Self Improvement, Developing positive attitudes, Self Motivation, Time Management, Stress management, Modern Manners

Text Books

1. Business Communication: K.K. Sinha
2. Business Communication: M. V. Rodrigues
3. The Art of Effective Communication: Margerison

Suggested Readings

1. Effective Communication: Asha Kaul
2. Managing Time: David Fontana
3. Managing Stress: David Fontana

APR-209
Mass Communication

Course Outcomes:

CO1: Understand the concept of Mass Communication, different forms and characteristics of mass media.

CO2: Description and detailed understanding of the different Media- Print media, Electronic Media, Folk media

CO3: Develop an understanding of the ethical challenges faced by the different media

CO4: Understand the concept of media and how social and commercial messages are Communicated through these media

Course Contents:

1. Introduction to Mass Communication: Definition; Difference among Intra-personal, Inter-personal, Group and Mass Communication; Characteristics and functions of mass communication; Importance of mass communication; Scientific Models of Communication – Definition, Purpose of Models.
2. Introduction to Mass Media: Mass Media and Society; Newspaper, Radio, TV, Web and traditional media, Application of Mass Communication in different sectors
3. Print Media: Nature, Challenges before print media and response.
4. Electronic Media: Radio: Nature of radio as a medium of communication; Educational radio and advent of FM; Radio and rural development; community radio; Television: Nature of TV as a medium of communication; Doordarshan versus other satellite TV channels; Role of TV in development of society
5. Traditional: Folk Culture and Traditional Media; The New Media and Future Trends
6. Mass Communication Research: Introduction; Methods of Mass Communication Research; Effects of Mass Communication Research on Individual and Government Policy.
7. Media and Ethics: Media and Democracy; Ethics of Journalism and Entertainment Media; Social Media Ethics.

Text Readings

1. The media in your life – Folkerts& Lacy
2. Mass communication in India – Keval J. Kumar

Suggested Readings

1. Encyclopedia of mass media and communication – Arvind Kumar

APR-212
Client Servicing and Account Planning

Course Outcomes:

CO1: Make students understand importance of client servicing and account planning function in advertising agency business.
CO2: Develop and understanding of types of clients and process to approach them.
CO3: Create understanding of presentations and negotiations for CS executive.
CO4: Gain insight into role of account planner in advertising process.

Course Contents:

1. Introduction to Client Servicing Department and its importance in the advertising agency; Functions, roles and responsibilities of a client servicing department
2. Types of clients and their classification based on business performance
3. Importance of Brief. Types of Briefs; Importance of pitching and Pitching Process
4. Presentations and negotiations
5. Introduction to Account Planning Department and its importance in the advertising agency, Evolution of Account Planning
6. Roles of Account Planner; Ideal Account Planner Recruitment Spec
7. Planning New Business- Market Oriented strategic Planning

Text Readings

1. Advertising Management - Aaker, Mayers& Batra
2. Advertising Management – Manendra Mohan

MBA (APR) Semester – III

APR-301C
Corporate Communication

Course Outcomes:

CO1: Crafting of the image a corporate project and the voice it propagates.
CO2: Creating powerful organizational identity.
CO3: Understanding roots, need, levels & limitations of Corporate Communication.
CO4: Understanding under laying ethics of Corporate Communication.
CO5: Understanding & analyzing Corporate Communication process
CO6: Managing effective Corporate identity and understanding its impact on corporate image and reputation.
CO7: Creating corporate advertising.
CO8: Understanding Corporate Social Responsibility.
CO9: Creating effective Employee Communication and Investor Relations
CO10: Understanding Digital Corporate Communication.

Course Contents:

1. **Understanding Corporate Communication**- Need of Corporate Communication - Cost of denial, Definition of Corporate Communication, Levels of Corporate Communication, Limitations of Corporate Communication.
2. **Roots of Corporate Communication** - Evolution of Corporate Communication, Roots of Corporate Communication, Contributions of Ivy Ledbetter Lee & Edward L. Bernays, Issues in Corporate Communication, Ethics of Corporate Communication.
3. **Corporate Communication Process** – Importance of top management involvement, Great Corporate Communicators, Corporate Communication Process, Placement of Corporate Communication in an organization.
4. **Corporate Reputation Management**- Building blocks of Corporate Reputation, Corporate Identity, Corporate Image, Corporate Reputation building.
5. **Corporate Communication Strategies** - Corporate Advertising, Functions of Corporate Advertising, Uses of Corporate Advertising, Challenges in Corporate Advertising, Corporate Social Responsibility and Sustainable Development, Financial Markets and Communication.
6. **Employee Communication and Investor Relations** - Importance of Employee Communication, Creating change through Employee Communication, Building Employee Care from roots, Lessons learnt on Employee Communication, Concept of Investor Relations, Importance of Investor Relations, psyche of an Investor, Developing successful Investor Relations program.
7. **Digital Corporate Communication –** Corporate communication channels, Corporate website, LinkedIn, Facebook, Twitter Youtube, Corporate Blogs, Building online corporate community.

Books and Suggested Readings

1. The power of corporate communication : Paul A. Argenti& Janis Forman, NY McGraw Hill, 2002
2. Corporate Communications: Theory and Practice : Joep Cornelissen, Sage Publications

3. Principles of Corporate Communication : Chris Blackburn, Prentice Hall
4. The Fundamentals of Corporate Communication : Richard R Dolphin, Butterworth Heinmann
5. Corporate Communication- Principles and Practice (OUP: New Delhi, 2010) : JethwaneyJaishri

Internet Reference

http://www.newswriters.in/2015/10/10/evolution-of-pr-in-india-and-its-present-status
http://www.authorstream.com/Presentation/sunitharatnakaram-1339892-unit
https://video-university.87seconds.com/corporate-communication-strategy-in-9-steps

Magazines/Newspaper

Business India
Business World
Business Today
The Business Standard,
The Economic Times
The Financial Express
The Times of India

APR - 302
Commercial Designing

Course Outcomes:

CO1: Understanding of design elements in commercial design.
CO2: Knowledge of type and color and their application in design.
CO3: Prepare brand identity material.
CO4: Knowledge of different types of press advertising and their layouts.
CO5: Understand packaging design for different type of material.
CO6: Online marketing design layouts.
CO7: Understanding of different printing techniques.

Course Contents:

1. **Basic Design:** Fundamentals of Design, Elements of Arts, Principle of Design, Practical Application of Basic Design in Advertising. Development of aesthetic sensibility towards design.

2. **Color Theory:** Color basics, Color selection process, Understanding Color psychology in Advertising, Color model study RGB/CMYK/Grayscale/Pantone, Color Modes on Computers, current practices

3. **Basic Typography:** History, Measure-width, spacing, tracking, Terms used in Typography/ Groups / Importance of feeling / prominence / legibility of type in Advertising. Practice of writing by hand based on study of traditional way of handwriting and script like Indian manuscripts, gothic and roman etc.Classification of the differenttypes with their names and character, mode, weight, orientation, position & sizes.

4.1 **Basic Conditioning:** Simulation, Understanding Consumer behaviors, Brand Appeals, and brand Identification, Outdoor Media. Photography for Advertising (product photography).

4.2**Corporate Identity/Information Design**: Corporate Identity - Complete Information Design, Case Studies. Logo Design, Business Card Design, letterhead etc.

5.1**Press Advertising**: Intro to working on briefs. Creating bullet tips, concept finalization, and various forms of Press / Magazine print advertising. Difference between social/commercial advertising. Publication Design

5.2Designing for Online/Digital Media, Newsletters, mobile and web contain design.

6. **Packaging Design:** Study of Structures & forms, Surface Graphics, Packaging Material Study, Case Studies. Field Practicum Packaging Unit visit

7. **Print Production:** Techniques, Printing/Folding/Cutting/Lamination/Binding, / digital prepress – Field Visit

Suggested Readings

1. Serious Creativity - Lateral Thinking - Edward De. Bono
2. Creative Visualization - Shakti Gwain
3. Ogilvy on Advertising - David Ogilvy
4. The language of Graphics - Edward Booth- Clibborn& Daniele Baroni
5. Type & color - Alan Cook

APR-302B
Consumer Behavior

Course Outcomes:

CO1: Knowledge amongst students of consumers, consumer behavior in the market place and their impact on marketing strategy with special focus on advertising arena.
CO2: Making students learn the principal factors that influence consumers as individuals and decision makers with an application to the buying decision process.
CO3: Understand the importance of subculture and global consumer and culture as marketing opportunities.

Course Contents:

1. Introduction to the study of consumer behavior: Nature, Scope and application.

2. Environmental influences on consumer behavior-I : Cultural, Social, Personal, Family, and situational influences, opinion leadership and life style marketing, characteristics of culture, cross-cultural understanding, nature of social class, social class and consumer behavior,

3. Environmental influences on consumer behavior- II: nature and significance of personal influence, marketing implications of personal influence, significance of family in consumer behavior and family life cycle, Opinion leadership forms.

4. Consumer as an Individual: Involvement and Motivation, Knowledge, attitude, perception, values, personality, learning and life style, Dimensions of involvement and its marketing implications, nature and role of motive, classifying motive, characteristics, functions and sources of attitudes, Attitude theory and model, Characteristics and classification of learning, Personality theory and application, Psychographics, Consumer Gifting Behavior.

5. Consumer Decision Process: Pre-purchase Process, Information Processing, Purchase Processes, Consumer Decision Rules, Post – Purchase Processes: Framework, Dissonance, Satisfaction / Dissatisfaction.

6. Consumer Behavior Models: Nicosia Model, Howard Sheth Model, Engel-Blackwell and Miniard Model, Family Decision Making Model

7. Organizational Consumer Behavior: Difference between consumer and organizational buying behavior, factors influencing organizational buying behavior.

TEXT READINGS:

1. Consumer Behavior, 10th Ed., Schifman Leon G, Kanuk Leslie Lazar, Ramesh Kumar, S., Pearson Education, UP, India
2. Consumer Behavior 10th Ed, Blackwell Roger D., Miniard Paul W, Engel James F., Thompson Southwestern.

SUGGESTED READINGS:

1. Consumer Behaviour: Building Marketing Strategy, 9th Ed.Hawkins Del I, Best Roger J, Coney Kenneth A., Mookerjee Amit, Tata McGraw Hill, New Delhi, India

APR-306B
COMPUTER GRAPHICS

Course outcomes:

CO1: Knowledge of different application of computer graphics.
CO2: Understanding of 2d, 3d design and their practical implication.
CO3: Knowledge of design application Corel draw.
CO4: Knowledge of design application Photoshop.
CO5: Knowledge of design application Illustrator.
CO6: Understand the difference of different design applications.

Course contents:

UNIT 1- Computer Graphics Basics - Introduction: Advantages & Applications of Computer Graphics. Types of Packages used in Computer Graphics, Streams of multimedia

UNIT 2- Colour Modes, Resolution, and Aspect ratio & File Formats. Basic understanding on 2D & 3D designing, practical examples of 2D and 3D animations and HTML5 Animations

UNIT 3 -Types of Computer Graphics (Vector/ Scalar/ Rastor), its implication with advertising industry, usage of computer Graphics in Films and Television Industry, Design Trends, Introduction to Scanning, Introduction to printing technology, types of printing and its Practical Implications.

UNIT 4 - Coral Draw- Introduction of Corel draw. Corel Draw Interface .Study of Vector Graphics. Tool Box. Drawing and Coloring, working with text, filters and effects. Creating logos and branding, brochures, Layout of magazine, and newspaper advertisement.

UNIT-5 - Photo Shop- Study of Pixel /Bitmap/Raster graphics, Layer system, different layouts (Development of boards), Study of tools to enhance the graphics, Photo editing, Drawing toots, Study of different colour modes, colour adjustment etc., Filters and different file formats, Printing techniques, Image modifications. (Changing Quality, Resolution, File formats, Color Modal, Size etc.) Creating Brochures, Newsletters and posters for digital marketing.

UNIT 6- Illustrator- The objective of this course is to familiarize students with Adobe Illustrator. it cover, in depth, all the basics which will allow you to start making professional looking graphics immediately.A Quick Tour of Adobe Illustrator CS6 Getting to Know the Work Area ,Selecting and Aligning, Creating and Editing Shapes, Transforming Objects, Drawing with the Pen and Pencil Tools, Color and Painting, Working with Type, Working with Layers, Working with Perspective Drawing, Blending Colors and Shapes, Working with Brushes, Applying Effect. Creating Web layout, web advertisement and digital marketing designing.

Unit 7- Practical Assignments of Corel Draw & Photoshop.

Text and Suggested Books:

1. Introduction to Multimedia
2. Text book of Corel draw
3. Text Book of Photoshop
4. Text book of illustrator

APR-308
Service Marketing

Course Outcomes:

CO1: Equipping students with core competencies and skills sets suitable for service sector
CO2: Create an in-depth understanding of service sector, service concept and service characteristics
CO3: Understand service marketing mix
CO4: Knowledge of development of service product, pricing, promotion and distribution decisions
CO5: Understanding service process role in service marketing mix and development of blue print
CO6: Managing and crafting Physical environment
CO7: Understanding the role of people in service organization and ways to maintain personnel quality
CO8: Describe Service quality concept, dimensions and model.

Course Contents:

1. Understanding Service Markets, Products and Customers: Services Perspective: service concept, service marketing triangle, and evolution of service marketing, reasons for growth of service sector, difference B/w Goods & services, and I's of services, classifications of services

2. Segmentation. Targeting & positioning in services: meaning and strategies

3. Service products: Service products: meaning of service product, service product levels, PLC, new service, service product range, process of new service development, and reasons for success or failure of new services –products, service product elimination.

4. **Pricing Services and Distributing Services**: price terminologies, costs of service incurred by customers, pricing tripod, pricing objectives, formulating pricing strategy, price tactics. Elements of distribution, methods of distributing services.

5. Services marketing communication: Promotional objectives, developing the promotion mix, key aspects of communication for the service marketers.

6. Extended P's of Service marketing

6.1Designing and managing **service processes**: service blue –print, steps in service process, self reinforcing service cycle.

6.2Crafting the Service Environment: elements of **physical evidence**, kinds of physical evidence, roles of service escape, approaches for understanding services escape effects, guidelines for physical elements strategy.

6.3Managing **People** for Service Environment: service personnel, service personnel quality, maintaining improving services personnel quality & performance, personnel audit, models of customer's as users of services.

7. Implementing Profitable Service Strategies

7.1 Service quality: impact of service quality, approaches to service quality, dimensions of service quality, models of service quality, SERVQUAL instrument, service productivity.

7.2 Designing a service strategy: internal marketing, external marketing, interactive marketing.

Text Readings

1. Zeithml, V.A. & Bitner, Mary, Jo. (2011).Services marketing. Tata- McGraw- Hill Edition.
2. 2. Shankar, R. (2011). Services marketing. Excel Books.

Reference Books

1. Lovelock,C., Wirtz, J., Chaterjee, J. (2011).Services marketing. Pearson Prentice Hall.

APR-312
DECISION MAKING SKILLS

Course Outcomes:

CO1: To help students to learn and to acquaint themselves with all the facets of Decision-Making Process in Advertising and Public Relation.

CO2: Understand Theories of decision making, SWOC Analysis, Thompson's matrix. Porter's five forces model, Mc Kinsey 7S model. PEST model for better decision-making process.

CO3: Identifying the need, means for deciding, possible options, tradeoffs etc. as Integrated Decision-Making Process.

CO4: Application of Intervening variables in decision making and Internal/External Implementing Decisions with Communication, types and Acceptability of decisions, long term impact assessment

CO5: Role of Group Decision making – Various stakeholders, collective bargaining process.

Course Contents:

1. Introduction to Decision Making - Types of decisions, Art or Science
2. Theories to decision making, SWOC Analysis, Thompson's matrix. Porter's five forces model, Mc Kinsey 7S model. PEST model
3. Integrated Decision Making Process – Identifying the need, Means for deciding, possible options, trade offs
4. Types of Problem Solving Behavior.
5. Intervening variables in decision making.- Internal & External
6. Implementing Decisions – Communication and Acceptability of decisions, long term impact assessment
7. Group Decision making – Various stakeholders, collective bargaining process

SUGGESTED BOOKS

1.Agarwal, R. D. Organization and Management. Tata McGraw-Hill Education. (1982).
2.Harold Koontz; Cyril O'Donnell ,Principles of management; an analysis of managerial functions, New York, McGraw-Hill
3.J Frank Yates, Decision Management, University of Michigan Business School, Wiley , India Edition

APR-314A
Dissertation

Course outcomes:

CO1: Considerably more in-depth knowledge of the major subject/field of study, including deeper insight into current research and development work.
CO2: A capability to contribute to research and development work.
CO3: The capability to use a holistic view to critically, independently and creatively identify, formulate and deal with complex issues.
CO4: The capability to plan and use adequate methods to conduct qualified tasks in given frameworks.
CO5: The capability to critically and systematically integrate knowledge to understand and solve management issues .
CO6: The capability to clearly present and discuss the conclusions as well as the knowledge and arguments that form the basis for these findings in written form.
CO7: The capability to identify the issues that must be addressed within the framework of the specific thesis in order to take into consideration all relevant dimensions of sustainable development.
CO8: A consciousness of the ethical aspects of research and development work.

MBA (APR) Semester – IV

APR – 401A
Rural and Retail Marketing

Course Outcomes:

CO1: Understand the significance of marketing for rural products.
CO2: Discuss FMCG, durables, agriculture products and understand importance for branding in rural markets
CO3: Understand rural consumer behavior and its major factors influencing it.
CO4: Learn problems of rural marketing
CO5: Describe sources of finance in rural areas
CO6: Understand acts pertaining to rural market and marketing
CO7: Create understanding of distribution system, challenges and future scope in rural marketing
CO8: Understand to communicate effectively with rural audience with right media.
CO9: Create an understanding of retailing in today's fast changing environment
CO10: Learn types of retailers and elements in retaining environment
CO11: Describe retail merchandising with pricing issues
CO12: Understand role of CRM in retailing

Course Contents:

Rural Marketing

1-A-Concept, Scope and Significance of Rural Marketing - Factors contributing to Growth of rural markets - Components and classification of Rural markets - Rural Market VS Urban Market, -e-rural marketing. Relevance of Marketing mix for Rural market/Consumers. Product Strategies, Rural Product Categories – FMCGs, Consumer Durables, Agriculture Goods & Services

Importance of Branding, Packaging and Labelling - Promotional Strategies. Segmentation, Targeting & Positioning for rural market.- Issues in Rural Marketing - Rural Consumer behaviour - features - factors influencing - Lifestyle of rural consumer - FMCG sector in Rural India - concept and classification of consumer goods - Marketing Channels for FMCG - Fast growing FMCG --Marketing of consumer durables - The role of Advertising.

- **B-** Problems in Rural Marketing –Nature of Competition in Rural Markets, the nature of fake brands,- Problems in rural marketing -Strategies for rural marketing - Integration, Efficiency, Cost and Price Spread - Need for marketing finance - Source of marketing finance - Non Institutional - Institutions - Commercial Banks - PACS, Farmers Service Societies (FSS), RRBs and NABARD -

2-A-Rural Marketing and Market Regulation
Regulated Market - APMC Act 1963 - Model bill Standardisation and Grading - Inspection of quality control - Inspection of AGMARK - Indian Standers and Grade Specifications - Food Products order (FPO) 1955 - Consumer Protection Act 1986. - The National Council for State Marketing Boards (NCOSAMB) State Trading corporation (STC), Public Distribution System (PDS).

- **B**-Institutional Support to Rural Marketing – Commission on Agriculture Costs and Prices (CACP), National Agriculture Co-operative Marketing Federation (NAFED), Agriculture and Processed Food Exports Development Authority (APEDA)

3- Distribution System in Rural Marketing

The National Co-operative Development Corporation (NCDC), Food Corporation of India (FCI), Panchayat Mandi --- State Agriculture Marketing Banks --- Future of Rural marketing , Problems of Institutional sources in marketing finance.

4-Communication Strategy.Challenges in Rural Communication, Developing Effective Communication, Determining Communication Objectives, Designing the Message, Selecting the Communication Channels. Creating Advertisements for Rural Audiences. Rural Media-Mass media, Non-Conventional Media, Personalized media.

Retail Marketing

5-Introduction, Economic Significance and Management Decision Process of Retailing, Product Retailing vs. Service Retailing, Types of Retailers, Retailing Environment, Indian vs. Global Scenario, - Elements in a Retail Marketing Environment, Environmental Issues

The Retail Marketing Segmentation: Criteria, Positioning Decisions , Limitations for Effective Segmentation - Store Location and Layout: Types and Factors Affecting Retail Location Decisions, Country/Region Analysis, Trade Area Analysis, Site Evaluation.

6- Retail Marketing Strategies: Introduction, Target Market and Retail Format, Strategy at different levels of Business, Building a Sustainable Competitive Advantage, the Strategic Retail Planning Process, Retail Models, Retail "EST" model.

Retail Merchandising: Understanding Merchandising Management, and Process, Tools of IMC-Retail Pricing: Introduction, Factors Influencing Pricing, Pricing Strategies, Psychological pricing, Mark-up and Mark-down Pricing

7-Customer Relationship Management in Retailing- Customer Relationship Management Strategies, Components of CRM. - International Retailing: Stages in Retail Global Evolution, Reasons and benefits of Going Global and Market Entry Methods.

E-Tailing: Role of Technology in Satisfying Market Demand, Technology in Retail Marketing Decisions, Structure and Developments in E-tailing, Factors Influences the Growth of E-Tailing, Advantages& Disadvantages of E-Tailing, Future of Electronic Retailing

Books

1-Badi R.V. Badi N.V. , Rural Marketing, Himalaya Publishing House – 2010, Page Nos. for Module 1 P.No. 3 to 7, 15 to 44, 33.
2-Acharya S.S. Agarwal N.L. , Agriculture Marketing in India, Oxford & IBH Publishing Company Pvt. Ltd. 113-B, ShahpurJat, Asian village side, Now Delhi India 110 049 India,Fax – 011 41517559 – 2004
3-Understanding Rural Buyer Behaviour, Jham, IIM – B Management Review Vol. 15 No. 3 2003
4- Retailing Management: Text and Cases, Swapna Pradhan, The Mcgraw Hill Company.
5- Emerging Trends in Retail Management: N. Panchanatham and R. Granaguru, Excel Books.
6- Managing Retailing: Piyush Kumar Sinha and Dwarika, PrasadVniyal, Oxford Higher Education.

Addition Readings

1-Habeeb U.R., Rahman K.S. , Rural Marketing in Indai, HPH- Mumbai 400 004 --- 2003
2-Rural Marketing- Gopalaswamy, Vikas Publishing House, New Delhi.
3- Kashyp Pradeep, Rant Siddhartha The Rural Marketing,,Biztantra, Mumbai., 2005

4- DograBalramGhumanKarmider , Rural Marketing concepts and practices Tata Mc Graw HILL Education Ltd. New Delhi, 2011

APR-402B
Marketing Strategies

Course Outcomes:

Upon successful completion of the requirements for this course, students will be able to:

CO1: Engage in strategic thinking including projecting future outcomes, setting goals, and reflecting on the implementation process to reach those goals;

CO2: Integrate marketing theory, prior practice and prior learning into the strategic marketingenvironment; and,

CO3: Communicate effectively in oral and written forms about marketing strategy using appropriate concepts, logic and rhetorical conventions.

Course Contents:

1.Introduction to strategy, key elements of marketing strategy formulation, formulating the marketing strategy, competition and marketing strategy, factors influencing competitive success, Basic marketing strategies, strategic role of marketing manager, factors influencing company's marketing strategy, Difference between marketing strategy and marketing management.

2.SWOT ANALYSIS: Mission, vision, formulation of policies, A framework for developing marketing strategy. **BCG MATRIX**: Strategies to improve performance, sales volume and profitability, Understanding business portfolio through BCG matrix. MARKETING STRATEGIES of market leader, market challenger, market follower and market nicher, Porter's three generic strategies.

3.PRODUCT STRATEGY: Meaning, strategies for developing new products, Product life cycle, Strategies at various stages of PLC, Branding strategies.

4.PRICING POLICIES AND STRATEGIES: Meaning of price, pricing objectives, role and significance of price, factors affecting pricing, pricing strategies for new products, established products, price flexibility strategy, Product-line pricing strategy, Leasing strategy, price-leadership strategy, pricing strategy to build market share.

5.**DISTRIBUTION (PLACE) STRATEGY**: Channel structure strategy, distribution scope strategy, multiple-channel strategy, channel modification strategy, channel-control strategy, conflict- management strategy.

6.PROMOTION MIX STRATEGY: Identify and understand the promotion mix variables, promotion objectives, strategies for developing promotional perspectives, Advertising strategies, Personal selling strategies.

7.CASE STUDIES: minimum one in each unit.

Text Books

1. Marketing Strategy by Vernon R. Stauble, Dryden Press.
2. Marketing Management by Philip Kotler, Pearson Publication.

Reference Books

3. Marketing Strategy and Management by Michael J. Baker, Palgrave Macmillan Publication
4. Competitive Marketing Strategies by Norton Paley, Thorogood Publication.

APR-403
Direct Marketing and Event Management

Course Outcomes:

CO1: Understand the importance and concept of Direct marketing
CO2: Description and detailed understanding of the different Direct Marketing Tools
CO3: Develop an understanding of the concept of interactive marketing practices
CO4: Understand the concept of Events, Classification and types of events with specific reference to the Indian industry.
CO5: Detailed understanding and application of Event Planning at Pre-event, During events and Post event stages.
CO6: Integrate the theoretical concepts with practical design of events.

Course Contents:

1 Nature and concept of Direct Marketing, Research in direct marketing.

2 Direct marketing plan and strategic planning.

3 Forms of Direct Marketing: Direct marketing offer 4Ps, direct mailing, Direct response print ads, Catalog marketing.B2B direct marketing. Direct marketing for retailers. Broadcast direct marketing. Telemarketing

4. Concept of Events, Event Management, Event as a marketing tool, Key elements of events Concept of product, price, and promotion in events.

5 Activities in event management (Pre, during, and post-events).

6 Strategic market planning, Evaluation – Event performance.

7 Event organization assignment

Text Readings

1. Creative strategy in direct marketing : Susan K.Jones
2. Direct marketing – concepts and cases: Mukesh Chaturvedi
3. Event marketing and management: Sanjay Gaur and Sanjay Saggere

Suggested Readings

1. Direct marketing: Bob Stone
2. HBRs and other related journals

APR-408
Brand Management

Course Outcomes:

CO1: Making student understand branding concept, role of brand in marketing and how a brand can be a reason of success/failure
CO2: Describe various sources of brand equity
CO3: Understand brand personality
CO4: Understand characteristics and role of brand elements in building a brand
CO5: Managing brand extensions and portfolios
CO6: Understand how to create positioning for the brand
CO7: Discuss how branding practices differ over international boundaries

Course Contents:

1. **Brand Definition and Concepts:** Definition, Strategic Significance of Branding, Branding Challenges and opportunities
2. **Brand Equity:** Customer-Based Brand Equity, Making a Brand Strong, Sources of Brand Equity, Cost based methods, Price based methods
3. **Brand Identity:** Brand Identity, The Identity structure, Brand Objectives, Choosing brand Elements, Criteria for Choosing Brand Elements
4. **Brand extension & Brand Portfolio strategy:** Types of brand extension, Need for brand extension Pros & Cons of brand extension, Category related extensions & unrelated extensions, Brand portfolio strategy.
5. **Brand Personality & Brand Repositioning:** Importance of Brand Personality, Brand Personality Scale, Positioning and repositioning
6. **Global Branding**
7. **Case Studies**

Skill Development

1. Group presentations on various Branding initiatives from diverse business sector
2. Case studies
3. Presentations on Branding news updates

Text Readings

1. Lane Kevin Keller., (2006). *Strategic Brand Management.* Pearson education

Reference Books

1. Al Ries and Jack Trout, Brand Positioning.
2. Simon David A. Aaker &Shcuster, *Building Strong Brands*
3. Kapferer Jean Noel., (2007). *The New Strategic Brand management.* Kogan page

Internet Sites

www.brandingasia.com www.brandchannel.com **Blogs** Thebrandingblog.com

APR-415
Audio Visual Production

Course outcomes:

CO1: Understand different stages of video production.
CO2: Knowledge of different Production techniques.
CO3: Outdoor and indoor shoot planning.
CO4: Set designing and crew management.
CO5: Knowledge of different type of productions.
CO6: Knowledge of workflow of add film.

Course Contents:

1. Production planning, pre production and post production planning (of video and audio), duties and responsibilities of producer/director. Above-the-line and Below-the-line personnel; key departments. AV Studio Equipment. Script & Screenplay formats.

2. Production techniques-video format; documentary, serial, talk show, interview, infomercials, discussion, profiles, commercials, news production. Types and formats of Radio programmes--News, Music, Interviews, Talks, Dramas, Discussions, Off-tube commentary, Features, Documentaries, Jingles, Phone-ins, Roadshows, Radio bridges, Spots, Sponsored programmes, Sponsorship and Info-commercials.

3. Set designing and make up -visualization and composition - aesthetics-directing the actors - directing the crew planning in career. Editing Basics.

4. Planning and Production of indoor and outdoor shootings, planning and management of live shows. Single & Multi cam Production.

5. Workflow of Ad Film Production House.

6. Promotion/ Dissemination. Multicast, Podcast, Webcast, Telecast, Broadcast.

7. Production Project - audio & video

Suggested Readings:

1. Lyver, D. and Shainson, G.: Basics of Video production, Focal Press, 1999.
2. Hart: Television Programme Making**,** Focal Press, 1999.
3. Kindem, G. and Musburger, R.: Introduction to Media Production: From Analog to Digital, Focal Press, 2009.

APR – 416
Digital Marketing

Course Outcomes:

CO1: Identify the basic understanding of digital marketing
CO2: Differentiate between Traditional Marketing and Digital Marketing.
CO3: Understand the strategies used in digital marketing environment.
CO4: Students must understand difference between Inorganic and Organic Content.
CO5: Develop basic understanding of Search Engine Optimisation.
CO6: Know the various Advertisement formats used in digital marketing.

Course Contents:

Unit 1 – Digital Marketing Introduction & Fundamentals

1.Digital marketing definition scope, advantages and disadvantages, process 2. Digital marketing Vs traditional marketing 3. Functions and responsibilities of marketing managers 4. Timeline and changes in digital marketing

Unit 2 – Content Creation Management & Curation

1.Inorganic vs organic content 2. Classification of content channels – video, blog, websites,press release, articles, e-books etc. 3. Understanding of content marketing basics4. Technical content writers vs creative writers5. Content creation

Unit 3 – Search Engine Optimazation (SEO)

1.Off page optimization2.On page optimization

Unit 4 –Search Engine Marketing (SEM)

1. Key word research, Google 2. SEM tools – ads words, bing ads, seven search, yahoo search ads3.Display ads, mobile ads4. Retargeting5. SEM models – PPC, PPM

Unit 5 – Social Media Marketing

1.Social media channels, testing of content, basic rule of social media , paid content on social ads

Unit 6 – Affiliate, Email and Influencer Marketing

1.Classification2.Brandend content3. Content research 4. Identifying audiences

Unit 7 – Understanding of Analytics

1.Search engine analytics 2.Social media analytics and insight3. App analytics 4. Advertising analytics5. Vanity matrix and actionable matrix

Text Readings

1.Digital marketing for dummies by RUSS HENNEBERRY and RYAN DEISS
2.The new rule of marketing and PR : 6th edition by DAVID MEERMAN SCOFF
3.E-MARKETING : JUDY STRAUSS and RAYMOND FROST

Web Reference

1.www.search engineland.com
2. www.search engine journal.com
3.www.socail mediaology.com

DEVI AHILYA VISHWAVIDYALAYA, INDORE

(Formerly University of Indore) , NAAC "A" Grade

State University of Madhya Pradesh, India

International Institute of Professional Studies

IIPS

DAVV

International Institute of Professional Studies

Syllabus
Of
Master of Business Administration (Entrepreneurship) (2YDC)

Academic Session : 2018-20

THE DIRECTOR DESK

Dear Scholar,

Welcome to one of the most prestigious, academic institution in central India offering professional education in Management, Computer Science and Commerce Streams. It has state of art infrastructure, pool of multi discipline faculty and devoted staff that creates a conducive environment for academic excellence and holistic development of yours, paving the way for your bright career prospects. Team IIPS looks forward to contribute towards your successful future life.

Team IIPS-MANAGEMENT

Dr. Anand K. Sapre, Professor, Director Ph D,MBA	**Dr. B.K. Tripathi, Professor** Ph.D (Mgt), MBA(HR), Ph.D (Chem), M.Sc (Chem)	**Dr. Yamini Karmarkar, Reader,** Ph D, FDP-IIMA, MMS
Dr. Geeta Sharma, Reader **Ph D , MBA (Finance), PGDPM&IR**	**Dr. GeetaNema, Reader** Ph D , MBA	**Dr. Jyoti Sharma, Reader** Ph.D., MBA (HR), M.A.(Psy), PGDCABM
CS. Dr. Manish Sitlani, Reader Ph D , ACS, MBA, M Com , LLB (Hons),UGC NET	**Dr. Preeti Singh, Reader** Ph.D.,MBA, B.Ed(DE)	**Dr. Suresh C. Patidar, Reader,** Ph D, MBA, M.Com, CS Inter, UGCNET, LLB(Hons)
Dr. Ravindra Yadav, Sr Lecturer Ph D , FDP-IIMA,MBA, DEE	**Dr. Manminder S. Saluja, Sr Lecturer** Ph D (Economics), M Phil, MA	**Dr. Anshu Bhati, Sr Lecturer** PhD, MBA(APR)
Dr. Pooja Jain, Sr Lecturer PhD, MBA(APR)	**Dr. Sujata Parwani, Sr Lecturer** Ph.D. (Economics) , M.A., M.Phil	**Dr. Kapil Jain, Sr. Lecturer** PhD(Mgt), MBA(Fin), M Phil., M Com.
Dr Surendra Malviya, Lecturer Ph D, MBA (E Com)	**Dr Muskan Karamchandani, Lecturer,** PhD, MBA (MS)	**Dr. Gaurav Purohit, Lecturer** Ph D , MBA (Tourism)
Dr. Nirmala Sawan, Lecturer M Sc, Ph D (Statistics)	**Dr. Shilpa Bagdare, Lecturer** PhD, MBA(Mktg)	**Dr.Navneet Kaur Bhatia,Lecturer** Ph D, MBA (Finance)
Dr. Prerna Kumar, Lecturer, PhD, MBA(Mktg)	**Mr. Naresh Dembla, Lecturer** ME (Comp Sc Engg), MBA, BE	**Dr Shikha Pandey, Lecturer** Ph D, MBA(Tourism)
Dr. Jyoti Jain, Lecturer Ph.D., MBA, MA	**Dr. Neha Chouhan, Lecturer** PhD, MBA	**Mr Ravi Bunkar, Lecturer** MBA (Mktg)
Ms. Monalisa Khatre, Lecturer MBA (Mktg)		

MrYogendra Singh Bawal, Network Administrator Incharge, Administrative Officer M Sc(CS), M Sc. (Elex & Comm.), CCNA	**Dr Suresh Patidar,** Incharge, Placement Officer Ph D, MBA, M.Com, CS Inter, UGCNET, LLB(Hons.)
Dr. Kapil Jain, Ph.D.(Mgt),MBA(Fin), M Phil, M Com. Program Officer, National Service Scheme (NSS) Coordinator, Red Ribbon Club, MPSACS Warden, JN Boy's Hostel	**Dr. Sujata Parwani**, Ph.D. (Economics), M.A., M.Phil, Program Officer, National Service Scheme (NSS)

DAVV at a Glance

There are twenty seven teaching departments offering undergraduate, post-graduate and research programs in sixteen Faculties. It is amongst the first few Universities in the country to introduce innovative and integrated courses in the area of science, engineering, technology, management, law and media. The university has 270 affiliated colleges in addition to University teaching departments and centers. The University provides and nurtures research environment for promoting high quality original research. It offers Ph.D. and M. Phil. Programs in all the subjects**.**

The Hon'ble Governor of the State is the Chancellor of the University. The University functions as per Act, Statutes, Ordinances and Regulations. The Registrar, Examination Controller and Finance Controller of the University assist the Vice Chancellor in administrative, examination and financial matters. The University has duly constituted bodies - Executive Council, Academic Council, Boards of Studies, Finance and other committees for decisions on major academic, administrative and financial matters.

The University is prepared to embrace future challenges, explore new horizons and keep moving ahead on the path of excellence, innovation and enlightenment.

About IIPS

International Institute of Professional Studies (IIPS), a pioneer institute under Devi AhilyaVishwavidyalaya DAVV was established in 1991 to provide a new dimension to professional education. It has emerged as one of the best management schools of Central India. The Institute is located in the sprawling Takshashila campus of the University surrounded by lush green environment. The Institute offers following courses

1. Master of Business Administration (Management Science) (2YDC)
2. Master of Business Administration (Management Science) (5YDC) Integrated Programme
3. Master of Business Administration (Advertisement and Public Relations) (2YDC)
4. Master of Business Administration (Tourism Administration) (5YDC) Integrated programme
5. Bachelor of Commerce (Hons.) (3YDC)
6. Master of Business Administration (Entrepreneurship) (2YDC)
7. Master of Business Administration (Tourism Administration) (2YDC)
8. Master of Computer Application (6YDC) Integrated Programme
9. Master of Technology (Information Technology) (5YDC) Integrated Programme
10. Doctor of Philosophy (PhD) in Management
11. Doctor of Philosophy (PhD) in Computer Science

The lush green campus of the IIPS Includes an academic complex of classrooms, seminar room, an auditorium, a well-equipped library, computer

labs and development center and administrative offices. The classrooms are specious and well equipped.

IIPS has one of the finest computing environments among the management Institutions in Central India. The institute provides internet facility through Wi-Fi to the students in campus.

Name of the Programme: MBA (Entrepreneurship)

Programme Specific Outcomes:

PS01: Develop ability to understand and solve entrepreneurial issues.
PS02: Inculcate skills o communicate and negotiate effectively, to achieve organizational and individual goals.
PS03: Develop ability to upgrade their professional and entrepreneurial skills in their workplace.
PS03: Inculcate skills to explore and reflect about entrepreneurial challenges
PS04: Develop ability to take informed entrepreneurial decisions in a dynamically unstable environment
PS05: Apply knowledge of leadership to take up challenging assignments.
PS07: Create ability to pursue lifelong learning.
PS08: Create fulfilling entrepreneurial career.

Course Curriculum Scheme for MBA (Entrepreneurship) 2 Years PG Batch 2018

Subject Code	**SEM I**	**Subject Code**	**SEM II**
ES-101A	Fundamentals of Entrepreneurship	ES-201A	Social Entrepreneurship
ES-102A	Creativity and Innovation	ES-202A	Business Environment
ES-103 A	Principles and Pracetice of Management	ES-203 A	Fundamentals of Finance -II
ES-104A	Fundamentals of Finanace -I	ES-204A	Business Communication
ES-105A	Human Resource Management	ES-205A	Service Management
ES-106A	Principles of Marketing Management	ES-206A	E-Business
ES-107A	Entrepreneurial Decision Making (Credits 2)	ES-207A	Digital Marketing (Credits 2)
ES-108	Comprehensive Viva	ES-209	Comprehensive Viva
	6 Subjects*4 credits=24Credits 1 subject*2 Credits=2 Credits Total = 26 Credits		6 Subjects*4 credits=24Credits 1 subject*2 Credits=2 Credits Total = 26 Credits
Subject Code	**SEM III**	**Subject Code**	**SEM IV**
ES-301A	Financi ng New Ventures and Business	ES-401A	Legal Aspects of Business
ES-302A	Managing Startup Strategic Framework for SMEs	ES-402A	Rural and Industrial Marketing
ES-303A	Introduction to Taxation	ES-403A	Business Ethics and Corporate Governance
ES-304A	Contemporary Issues in Strategy	ES-404A	International Business/EXIM Management
ES-305A	Production & Operations	ES-405A	Human Resource Development
ES-306A	Organizational Behaviour	ES-406A	Logistics and SCM
ES-307A	Enterprise Resource Planning (Credits 2)	ES-407A	Enterprise Resource Planning -I (Credits 2)
ES-309	Comprehensive Viva	ES-409	Comprehensive Viva
	6 Subjects*4 credits=24Credits 1 subject*2 Credits=2 Credits Total = 26 Credits		6 Subjects*4 credits=24Credits 1 subject*2 Credits=2 Credits Total = 26 Credits

Total Credits (For Batch 2018 onwards) 104 Credits

Virtual credits of CV in I, II, III and IV=4*4=16 credits Grand Total= 120 credits

ES-101A
Fundamentals of Entrepreneurship

.

Course Outcomes:

CO1. Developing basic understanding of entrtepreneurship
CO2. Inculcating analytical skills in order to identify business opportunities,
CO3. Enabling to identify the elements of success of entrepreneurial ventures
CO4. Developing ability to consider the legal and financial conditions for starting a business venture
CO5. Enabling to evaluate the effectiveness of different entrepreneurial strategies
CO6. Developing understanding of marketing and management in small businesses venture,
CO7. Enabling to create their own business plan.

Course Contents:

1. Entrepreneurship: An Introduction The concept of entrepreneurship, the introduction and concept of entrepreneur, characteristics of an entrepreneur, function of an entrepreneur.
2. Entrepreneurship and its environment: External: Market, economy, political & legal, technology, social and cultural. Internal: materials, machines & equipments, processes, capital, labour.
3. Problems and challenges of organizations/enterprises- Economic (capital, material and labor) Non-economic (social, political and personal)
4. Financial management issues- Financial requirement and its planning, balance sheet and income statement, determination of cost, cost-volume-profit analysis.
5. Marketing management issues- Functions of marketing, concept of product life cycle, issues related to product and its design, distribution, promotion, price.
6. Human resource management issues-HR planning, recruitment & selection, training & development, performance appraisal, motivation, compensation & rewards, relevant labor laws.
7. Legal issues- Patent, copyrights, trademarks.
8. New venture expansion strategies and issues- Joint venture, acquisition, merger, franchising.

Suggested Books

- Entrepreneurship: New Venture Creation: David H. Holt
- Entrepreneurship in small Scale factor: D Naxendra Kumar
- Entrepreneurship development – Programs & Practices: Jasmer Singh Saini
- Entrepreneurship: strategies & resources: Marc. J. Dollinger
- Entrepreneurship: Hirsch Peters

ES-102A
Creativity and Innovation

Course Outcomes:

Course Outcomes:

CO1: Understand the roles of skill, experience, motivation and culture in creative endeavour
CO2: Describe the perspective taken on creativity affects the policy used to engender it
CO3: Differentiate between radical and incremental innovation
CO4: Identify some potential disruptive innovations and take advantage of 'open' innovation
CO5: Reflect on experiences of creativity and innovation at work.

Course Contents:

1. Introduction -Making a case for creativity Creative thinking as a skill

2. Valuing diversity in thinking preferences, Creativity styles
3. Setting the stage for success-Basic philosophy, having a vision setting the right attitude recognizing and avoiding mental blocks, avoiding mindsets, Risk taking, Paradigm shift and paradigm paralysis, Individual and team work
4. Creativity in problem solving-(i)Problem Definition-Understanding, Representing (ii) Pattern Breaking-Thinking differently, changing your point of view, watching for paradigm shift, Challenging conventional wisdom, Lateral thinking, provocation (escape, random word), Mind stimulation: games, brain-twisters and puzzle (iii) General Strategies-Idea-collection processes, Brainstorming/Brain-writing, The SCAMPER methods, Metaphoric thinking, Outrageous thinking mapping thoughts other new approaches (iv) Using Math and Science-Systematic logical thinking, using math concepts.(v). Eight-Dimensional (8D) Approach to Ideation, 1. Uniqueness 2. Dimensionality 3. Directionality 4. Consolidation 5. Segmentation 6. Modification, 7. Similarity 8. Experimentation. (vi) Systematic Inventive Thinking-Systematic inventive thinking: The TRIZ methodology, Levels of inventions, Evolution of technical systems, Ideality and the ideal final result (IFR), Stating contradictions and the contradiction table,39 standards features and 40 inventive principle Separation principles, Using physical, geometrical, and chemical effects, fields
5. Decision and Evaluation-Focused thinking framework, six thinking hats, PMI, Ethical considerations

6. Design for Interaction-Introduction to design for interaction, Introduction to intellectual property:

7. Intellectual Property-Patents, Copyrights, Trademarks, Trade Secret, Unfair Competition.

Suggested Books

1. H. S. Fogler and S.E. LeBlanc, Strategies for Creative Problem Solving, Prentice Hall, 1995.

2. E. Sickafus Unified Structured Inventive Thinking, Ntelleck, 1997.
3. E. Lumsdaine and M. Lumsdaine, Creative Problem Solving, McGraw Hill, 1995.
4. Kaplan, Introduction to TRIZ, Ideation International, Inc., 1995.
5. G. Altschuller, Creativity as an Exact Science, 1983.
6. The Art of Inventing (And Suddenly the Inventor Appeared).
7. E. de Bono, The Use of Lateral Thinking, Penguin Books, 1990.
, de Bono's Thinking Course, Facts on File, 1981.
8. Serious Creativity, Harper Collins, 1992.
9. Six Thinking Hats, Little, Brown & Co., 1985 CoRT Thinking, Advanced Practical Thinking Training, Inc., 1995.
10. Tony Buzon, Use Both Sides of Your Brain, Dutton, 1983.
11. Scott G. Isaksen, Brian Dorval, and Donald Treffinger, Creative Approaches to Problem Solving, Kendall Hunt, 1994.
12. F. Osborn, Applied Imagination: Principles and Procedures of Creative Problem Solving, Charles Scribner's Sons, 1979.
13. D. Tanner, Total Creativity in Business and Industry, Advanced Practical Thinking Training, 1997.
14. D. Pressman, Patent It Yourself, NOLO Press, 2006.
15. T. Kelley. The Art of Innovation. Doubleday, 2001.
16. T. Kelley. The Ten Faces of Innovation. Doubleday, 2005.
17. J. Goldenberg and D. Mazursky, Creativity in product innovation. Cambridge University Press, 2002.

ES-103A

Principles and Practice of Management

Course Outcomes:

CO1: Understanding of the functions and responsibilities of the manager, and providing them with necessary tools and techniques to be used in the performance of managerial job.

CO2: Examine the management theory with corrosponding opportunities for application of these ideas in real world situations.

CO3: This course focuses on the managerial functions of Assessing, Planning, Organizing, and Controlling. Both traditional and cutting-edge approaches are introduced and applied.

CO4: Practice ethical implications of managerial action and inaction.

Course contents:

1 Management Concept and Theories: Concept and nature of Management, Role and responsibility and functions of Manager, Managerial Skill and organization hierarchy, Evolution of Management thoughts- (Classical School, Taylor,Fayol & Weber's Conditions), Neoclassical Theory (Elton Mayo Contribution) Modern Theory (Contingency & System Approach)

2 Planning: Nature and purpose of planning, Types of Planning, Planning Process, Nature and Objectives, MBO; Process, benefits and limitations.

3 Strategies, Policies and Planning: Nature and process of planning, Strategies planning process, TOWS Matrix, Porter's Generic Competency Model, Planning and Forecasting.

4 Organizing: Nature and Purpose of Organizing, Organizational Structure; Departmentalization, Line/Staff Authority & De centralization, Delegation.

5 Staffing & Directing: Concept, Nature, Importance and Steps of Staffing and directing.

6 Controlling: Concept and Process of Control, Control Techniques, Human aspects of Controlling, Use of IT in Controlling.

7 Decision Making: Decision Making; Nature, Type & Scope of Managerial decision making process, Model of decision making, Certainty in decision making.

Suggested Books

- Koontz – Principles of Management (Tata McGrew Hill, 1st Edition 2008)
- Robbins & Caulter – Management (Prentice Hall of India, 8th Edition)
- L.M. Prasad – Principles & Practices of Management (Sultanchand & Sons , New Delhi)

ES-104A
Fundamentals of Finance -I

Course Outcomes:

CO1: Understanding of the functions of Accounting
CO2: Undestanding legder posting and final accounts
CO3: Analyze financial statements
C04: Understand fundamentals of costing
CO5: Preparing the costsheet
CO6: Be able to handle CVP and BEP analysis and Budgeting

Course Contents:

1. Financial Management: An Introduction - Concept and Nature of Financial Management, Goals of Financial management, Scope of Finance. Organization of Finance Function, Relationship of Finance Function with other disciplines, Role and Functions of Finance Manager. Concept and Utility of Time Value of Money, Future and Present Value of a Single Cash Flow, Multiple Flows and Annuity. Compounding and Discounting Techniques, Numerical Problems.

2. The Management of Working Capital - Introduction, Concept and Classification of Working Capital, Working Capital Financing, Nature & Concepts, Management of Receivables, Cash and Inventory. Planning for Working Capital Management, Determinants of Working Capital, Estimation and Calculation of Working Capital, Numerical Problems, and Composition of ST Financing.

3. Long Term Sources of Finance and Leverage Analysis - Concept, Debt and Equity, Equity and Preference Shares, Debentures, Term Loans, etc. Lease. Concept of Leverage, Operating Leverage, Financial Leverage, and Combined Leverage. Importance of Leverages, Relationship of Leverages with Capital Structure, EBIT-EPS analysis, Indifference point. Numerical problems (Leverage Ratio).

4. The Cost of Capital - Introduction, Concept, Definition & Importance, Assumptions, Cost of Debt, Cost of Preference shares, Cost of Equity, Weighted Average Cost of Capital. Numerical Problems.

5. Capital Structure and Valuation: Introduction, Concept & Definitions, Capital Structure Theories- assumptions, Valuation of Firms- NI Approach & NOI Approach, Optimum Capital Structure, MM Approach.

6. Capital Budgeting: Introduction, Importance, Difficulties and kinds of CB Decisions, Basic Data Requirements- Identifying relevant cash flows, Basic Principles in estimating cost and benefits of investments. Appraisal Criteria's; DCF and Non DCF Methods for Evaluating Projects, Evaluating Mutually Exclusive and Independent Proposals. Evaluating projects with unequal life and capital ratios.

7. Dividend Decision - Dividend & valuation- an introduction, Irrelevance of Dividends- MM Hypothesis, Relevance of Dividends- Walter's Model & Gordon's Model, Numerical Problems, factors determining Dividend Policy, Cash Dividend Vs. Stock Dividend, Legal, Procedural & Tax Aspects.

Suggested Books

1. Financial Management Text & Problems by M Y Khan & P K Jain
2. Financial Management, I M Pandey
3. Fundamental of Financial; James C Van Horne & John M Wachowicz, Jr
4. Financial Management by A K Dhagat, Dreamtech Press

ES-105A
Human Resource Mangement

Course Outcomes:

CO1: Developing better leaders by enhancing their effectiveness in managing human resources.

CO2: Demonstrate the basic principles of strategic human resource management

CO3: The course will introduce the manager to practices and techniques for evaluating performance, structuring teams, coaching and mentoring people, and performing the wide range of other people related duties of a manager in today's increasingly complex workplace.

Course Contents:

1. Human Resource Management:

Relevance and spectrum, concept and evolution, Organization of HR Department, Role, Functions of HRM, HR Policies. Emerging dimensions in HRM.

2. Acquisition of Human Resource**:**

Human Resource Planning- Process and Importance of HRP, Quantitative and Qualitative dimensions; job analysis – job description and job specification; Concept and sources; recruitment – selection – Concept and process; test and interview; placement induction, Turnover, Retirement, layoff, retrenchment and discharge, VRS.

3. Training and Development**:**

Concept and importance; identifying training and development needs; designing training programmes; role specific and competency based training; training process outsourcing; management development systems.

4. Performance Appraisal System***:***

Nature and objectives; techniques of performance appraisal; potential appraisal and employee counseling; job changes - transfers and promotions.

5. Compensation:

Concept, policies and administration; job evaluation; methods of wage payments and incentive plans; fringe benefits; performance linked compensation. Maintenance: employee health and safety; employee welfare; social security; grievance handling and redressal.

6. Career planning and succession planning.

Concept, need and process of Career planning. Difference between Career planning and succession planning. Concept, process and benefits of both types of planning.

7. Separation**:** Retirement, Resignation, Lay off, Retrenchment, Discharge and Dismissal.

Suggested Books:

1. Human Resource Management Principles and Practice, P.G. Aquinas,
2. Personnel Management, Arun Monappa , Mirza Saiyadain,
3. Human Resource Management, V S P Rao,
4. Human Resource Management, Gary Dessler,

ES106A

Principles of Marketing Management

Course Outcomes:

CO1: Describe key marketing concepts, theories and techniques for analysing a variety of marketing situations.

CO2: Identify and demonstrate the dynamic nature of the environment in which marketing decisions are taken and appreciate the implications for marketing strategy determination and implementation

CO3: Use written formats to communicate marketing outcomes.

CO4: Analyse the relevance of marketing concepts and theories in evaluating the impacts of environmental changes on marketing planning, strategies and practices.

CO5: Demonstrate the ability to carry out a research project that explores marketing planning.

CO6: Synthesise ideas into a marketing plan.

Course Contents:

1. Marketing Concepts: Customer Value and Satisfaction, Customer Delight, Orientation of Marketing Concepts: Production Concept, Product Concept, Selling Concept, Marketing Concept and Societal Marketing Concept, Value Chain.
2. Understanding the Marketing Environment: Scanning the Environment, Micro-Environment, and Macro-Environment.
3. Marketing Segmentation, Targeting and Positioning: Market Segmentation, Bases of Market Segmentation, Requirements of Effective Segmentation, Evaluating the Market Segments, Market Targeting: Undifferentiated Marketing, Single Segment and Multi-Segment Structures, Concept of Positioning.
4. Consumer Behavior: Model of Consumer Behavior, Factors Influencing Buyer Behavior, Decision-Making Process in Buying.
5. Marketing Research: Meaning and Process.
6. Elements of Marketing Mix:
   - Product Decision: Objectives, Core, Tangible and Augmented Products, Product Classification, Product Mix, Product Life Cycle and Strategies, New Product Development Process, Introduction and Factors Contributing to the Growth of Packaging, Introduction of Labeling.
   - Pricing Decisions: Factors affecting Price, Pricing Methods, Price adaptation Strategies.
   - Distribution Decisions: Importance and Functions of Distribution Channels, Considerations in Distribution Channel Decision, Distribution Channel Members, Intensity of Distribution, Channel Conflict and Channel Management.
   - Promotion Decisions: A view of Communication Process, Developing Effective Communication, Promotion Mix Elements.
7. Emerging Trends in Marketing: An introduction to Internet Marketing, Multilevel Marketing, CRM, Green Marketing, Social Media Marketing, Rural Marketing, Experiential Marketing and Event Marketing.

Suggested Books

- Philip Kotler, Principles of Marketing Management, New Delhi, Prentice Hall of India.
- Ramaswamy and Namakumari, "Marketing Management", Macmillan India.
- Rajan Saxena,"Marketing Management", Tata McGraw Hill.

ES-107A
Entrepreneurial Decision Making

Course Outcomes:

CO1: Developing familiariaty with the process of business decision-making, gain knowledge about the possibility of using various methods, techniques and tools in taking decisions.

CO2: Awarding habits that enable them to use methods and tools for business decision making in practice corporate governance

Course Content:

This is fully based on case study and field visits.Cases related to concepts of entrepreneurship and implementation will be discussed in the class.

Suggested Books

- All basic and specialization books in entrepreneurship need to be referred**

ES201A
Social Entrepreneurship

Course Outcomes:

CO1: Explain the characteristics that define social entrepreneurship
CO2: Describe different forms of social enterprise organisations
CO3: Apply and critique social entrepreneurship frameworks
CO4: Explain key considerations in resourcing social entrepreneurship
CO5: Apply the theory of change model for social enterprises
CO6 Describe the challenges in growing a social enterprise and scaling social impact

Course Contents:

1. **Introduction to Social Entrepreneurship**- defining Social Entrepreneurship,Overview,Dimensions of Social Entrepreneurship,Identifying Social Entrepreneurs in Practice.
2**. Social Entrepreneurship for-profit setting**- Social Capital Built by Entrepreneurs, Social Network, Personality Traits that facilitate building of Social Capital, Gap analysis- Strength and Weakness, Open Source Marketing.
3. **Philanthropy and Hybrid Ventures**-Introduction, Nature and Concepts.
4. Nonprofits, Governments, and Social Entrepreneurship
5. **Capital/Funding/Financing**- Pitching strategies, Types of Investments, Angel Investors, Venture Capitals, Types of Loans available- Loan against collaterals, Project Loans, Loans without collateral, Term Loans, Government schemes and Agencies/Services, Government policies.
6. **Marketing in Social Ventures**- Marketing Mix Strategies for Social Organizations, Role of SSIC, NSIC and Role of Government, Purchasing Departments, Marketing Research Strategies including research design, Investment Design, Statistical Techniques and Data analysis.
7. **Addressing the challenges**- Important Issues: Scaling/Legal issues/Change (Risk, Physical, Dry run challenges), Funding, form of Organization –society , trust – multi state level , Society, Sec.8 Company Act 2013.

Suggested Books

- Social Entrepreneurship: The Art of Mission-Based Venture Development, by Peter C. Brinckerhoff.
- REDF, SROI Collection 2000. Available for free download at www.redf.org/publicationssroi.html
- Raising the Bar: Integrity and Passion in Life and Business: The Story of Clif Bar, Inc., By Gary Erickson.
- Bornstein, David. How to Change the World: Social Entrepreneurs and the Power of New Ideas (Oxford University Press, 2004)

ES-202A
Business Environment

Course Outcomes:

CO1. Discuss the supply and demand theory and its impact on insurance.
CO2. Explain the effects of government policy on the economic environment and insurance industry.
CO3. Outline how an entity operates in a business environment.
CO 4. Describe how financial information is utilized in business.
CO5. Explain the legal framework that regulates the insurance industry

Course Contents:-

1. **Meaning of Business Environment** - Business & Business Environment, Nature of Business in 21st century, Components of Business Environment, Stages of & Techniques for environmental analysis.

2. Economic Environment - Nature & Structure of Economy, Anatomy of Indian Economy, Economic Reforms, Economic Policies: - Industrial, Monetary & Fiscal Policies, Case Studies.

3. SWOT Analysis of Indian Economy. Recent Developments in Business Environment of India: - Privatization & Disinvestment – Mode, reasons, problems and Indian scenario; Foreign Investment. Case Studies.

4.International Business Environment:- Globalization- Meaning, scope, phases, indicators; WTO, Post 2007 International Economic Crisis, Case Studies.

5. International Financial Markets and Indian Business, Capital account Convertibility, global capital flow paradox, Forex Reserve Management and its impact on Indian Business. Case Studies.

6.Business Ethics – Social Environment and Business, Corporate Social responsibility, Corporate Governance, Technological development and its impact on various stakeholders of society. Case Studies.

7. Business and Nature: Economic development and Environment, market failure, Externalities, Economic solution to environmental problem. Ethical responsibility of Business towards nature. Case Studies.

Suggested Books

- Francis Cherullinum- Business Environment, Himalaya Publishing House, New Delhi
- K. Aswathappa – Essentials of Business Environment, Himalaya Publishing House, New Delhi
- Mishra &Puri – Economic Environment in India, Himalaya Publishing House, New Delhi
- Justin Paul:- Business Environment – Text & Cases, McGraw Hill Companies, New Delhi
- Raj Agrawal - Business Environment, Excel Books, New Delhi
- Dutt&Sundaram – Indian Economy, S. Chand & Co. New Delhi
- I.J. Ahluwalia& I.M.D. Little – India's Economic Reforms and Development, Oxford University Press, New Delhi.

ES203A
Fundamentals of Finance II

Course Outcomes:

CO1: Taking sound financing decisions.

CO2: Integrate student knowledge to estimate the cash flows from an investment project, calculate the appropriate discount rate, and determine the value added from the project, and make a recommendation to accept or reject the project.

CO3: Taking sound dividend decision.

CO4: Understand the demerits and merits of different types of long and short term sources of finance

Course Contents:

1. Fundamentals Of Finance Functions And Project Finance:

1. Scope of Finance Functions, Financial Decision-Making, Goal of Financial Decision-Making, Basic Dimensions of Financial Decisions, Finance Function and Financial Engineering, Capital Investment Process, Classification of Projects, Project life cycle, New concepts in Financing and execution of projects, Incentives in Project Planning, A review of Financial Appraisal-of-a-Project.

2. **Key Financial Decision I** (Investment and Capital Budgeting):
   Features and Significance of Capital Budgeting, Types of Capital Budgeting Decisions, Assumptions & Procedure, Estimations of Costs and Benefits of a Proposal, Cost of Various Sources, Calculation of WACC, Factors affecting WACC, Leverage Analysis and Project Financing, Techniques of Evaluation; Traditional and Discounted Cash Flow Techniques, Practical Questions.

3. **Key Financial Decision II** (Cost of Capital and Financing Decisions):
   Concept of Cost of Capital, Significance of Cost of Capital, Factors affecting Cost of Capital, Assumptions and Measurement of Cost of Capital, Practical Questions, Factors determining Capital Structure, Profitability and Capital Structure, Capital Structure Theories, Practical Questions.

4. **Key Financial Decision III** (Dividend Decisions):
   Concept and Significance, Dividend and Valuation of Firm, Relevance of Dividend policy, Dividend Payout Ratio, Stability of Dividends, Legal and Procedural Constraints, Dividend Policy and Share value, Practical Questions.

5. **Working Capital Management:** Introduction, Concept and Classification of Working Capital, Working Capital Financing, Nature & Concepts, Management of Receivables, Cash and Inventory. Planning for Working Capital Management, Determinants of Working Capital, Estimation and Calculation of Working Capital, Numerical Problems, and Composition of ST Financing.

6. **Leverage Analysis:**
   Concept of Leverage, Operating Leverage, Financial Leverage, and Combined Leverage. Importance of Leverages, Relationship of Leverages with Capital Structure, EBIT-EPS analysis, Indifference point. Numerical problems (Leverage Ratio).

7. **Financial Estimates and Projections:**
   Estimating Working Capital Requirements, Estimation of Profitability and Financial Position, Preparation of Projected Income Statement, Projected Cash Flow Statement

and Projected Balance Sheet, Pre-feasibility Study, Numerical Problems/case studies, Estimation of Profitability of Projects.

Suggested Books

- "Financial Management: Theory, Concepts and Problems" By R.P.Rustagi, Galgotia Publishing House.
- "Financial Management" By I.M.Pandey
- "Projects" by Prasanna Chandra, Tata McGraw Hill Publishing Company Ltd. Latest Edition "Project Management and Control" by Narendra Singh, Himalaya Publishing House
- "Project Management" by Vasant Desai, Himalaya Publishing House
- "Strategic Financial Management" by Ravi M. Kishore Taxmann Publishing Pvt. Ltd.

ES204A
BUSINESS COMMUNICATION

Course Outcomes:

CO1: Developing effective business writing and communications.
CO2: Practice research approaches and information collection.
CO4: Developing and delivering effective presentations.
CO5: Managing effective interpersonal communications.
CO6: Practice skills that maximise team effectiveness.
CO7: Do good time management.
CO9: Practice effective problem solving

Course Contents:-

1. Basic Principles of Communication*:* Introduction, Understanding Communication, the Communication Process, Barriers to Communication, the Importance of Communication in the Workplace,Types of Communication, Classification of Communication Channels,, Types of Business Communication, Communication Network in Organizations.

2. The Importance of Listening in the Workplace: Introduction, what is listening? Barriers to Listening, Strategies for Effective Listening, Listening in a Business Context

3. Written Business Communication: Writing Skills, Business Letters, Format and Types, Reports Memos, Circulars, Notices, Resume Writing, Email Writing, Covering Letter.

4. Oral and Reading Skills: Reading Skills, Oral Business Presentation, SWOT Analysis, Interview, Types of Interview, Stress Interview, Attending Job Interview.

5. Internal Business Communication: Types of Meetings, Common Mistakes made at Meetings, Corporate Etiquettes.

6. Advertising Skills in Communication: Communication through Internet E-mail, Follow-up Promotion Skills through Social Media, Communication with Media through News Releases Pamphlets, Hoardings, and Communication with Shareholders.

7. Public Speaking: Group Discussion (GD), Stress Grouse Discussion, Speech, Open Mike Soft Skills Activities.

Suggested Books

- Business Communication Today by Courtland L. Bovee, John V. Thill, Barbara E. Schatzman, Hardcover: 730 pages, Publisher: Prentice Hall
- Excellence In Business Communication (6th Edition) by John Thill, Courtland L. Bovee, Paperback: 656 pages, Publisher: Prentice Hall
- Essentials of Business Communication with Student CD-ROM by Mary Ellen Guffey, Paperback: Publisher: South-Western
- Educational Business Communication: Building Critical Skills by Kitty O. Locker, Stephen KyoKaczmarek, Hardcover:, Publisher: Irwin/McGraw-Hill

ES204A

Service Management

Course Outcomes:

CO1: Articulate the nature of service and service process.
CO2: Explain the basic concepts and theories of service management.
CO3: Identify the broad basic elements of managing service design, delivery, and performance.
CO4: Apply the knowledge of service management to analyse the daily operations of common services

Course Content :

1. Introduction: Service overview, manufacturing v/s ser vices, nature of ser vices service classification, characteristics of service operations, co mp etitive environment, strategic service vision, value chain.

2. Service strategy: service benchmarks, use of information techno logy, measur ing service productivity, data envelopment analysis, strategic planning.

3. Service Design: New service development, service design overview, customer as co producer, process quality, service benchmar ks, use of techno logy self service, e-business service co ncepts.

4. Service quality: Int oduction, definition, need/importance of service quality, measurements, dimensio ns, Gap model, SERVQUAL, cr itiques, associated concepts, custo mer satisfactio n, loyalty, retention, Quality by design, Taguchi method.

5. Facility location and design: Nature and objectives of service o rganizatio n, process analysis, product layo ut and work allo cations, center of gravity model, location co nsiderations, lo cating a retail outlet.

6. Managing service operations: Resources co nstraints, project monito ing, forecasting demand for services, yield management, ro le of uncertainty in services, characteristics of inventory related costs.

7. Globalization of services: Introduction, domestic growth, strategies, franchising, international strategies, Multi country operations, importing, service off shor ing. Text Readings: 1. Service Management, Fitzamann and Fitzamann, Tata Mc Graw Hills, New Delhi

Suggested Books

- Service Management and Marketing by Christian Gronroos ,Wiley, 2000 Original from –University of Califoinia

ES-206A
E-BUSINESS

Course Outcomes:

CO1: Explain the components and roles of the Electronic Commerce environment.
CO2: Explain how businesses sell products and services on the Web.
CO3: Describe the qualities of an effective Web business presence.
CO4: Describe E-Commerce payment systems.
CO5: Explain how to meet the needs of Web site visitors.
CO6: Identify and reach customers on the Web.
CO7: Understand Web marketing approaches and elements of branding.
CO8: Explain the client/server infrastructure that supports electronic business.
CO9: Understand legal and ethical issues related to E-Commerce

Course Contents:

1. **E-Business**: Fundamentals, E-Business framework, E-Business application, E-Business and E-Commerce, Network Infrastructure for E-Business, E-Business Models.
2. **Drivers of e-business**: Internet and its technological concepts, Big Data & Analytics, Mobile, Cloud Computing, Social Media, Internet of things (digitally intelligent machines/ services).
3. **Inter-organization Business**: EDI application in business, EDI: legal, security, standardization and EDI, EDI software implementation, VANs (value added net work) Internet based EDI.
4. **Managing Risk and Handling Transactions** : Security Threats, Encryption, Cryptography, Digital Signatures, Digital Certificates, type of E-payment, digital token–based e-payment, smart card, credit card payment systems, Credit Card Frauds, Introduction of Virtual currency. Legal, Ethics and Societal impacts of E- Business.
5. **Electronic market place of buyers and sellers**: Consumer and business markets: ordering on-line, Advertisement and marketing on Internet, Offering customer product on the net, electronics customers support. Web–catalogues
6. **Business and Online Financial Services:** Online Financial Consumer Behavior, Online Banking, Online Insurance Services, Virtual supply chain and Supply chain management.
7. **Future E-business Support services**: e-CRM, e-SCM, e-banking, ERP as e – business backbone, Mobile Computing.

Suggested Books

- E-Commerce by Kenneth C Loudon, Pearson Publication.
- E-business and E-commerce management by Dave Chaffey, Pearson Publication.
- Digital Business and E-Commerce Management, 6th edition –Dave Chaffey, August 2014
- Electronic Commerce by Ravi Kalakota and B.Whinston, Frontiers of e-commerce, New Delhi, Addisin-Wesley, 2000 edition.
- Ravi Kalakota and M.Robinson, E-Business: Road map for success, New Delhi, Addisin- Wesley,2000 edition.

ES-207A
Digital Marketing

Course Outcomes:

CO1: Identify the basic understanding of digital marketing
CO2: Differentiate between Traditional Marketing and Digital Marketing.
CO3: Understand the strategies used in digital marketing environment.
CO4: Develop understanding of Inorganic and Organic Content.
CO5: Develop basic understanding of Search Engine Optimisation

Course Contents:

1. Today's Digital Map:

Current digital map and the journey so far.Gaps currently available.Its future. Trends and predictions.Online MediaUnique features of Online Media. Role of Digital Media in Integrated Marketing. Using synergy in multiple online media.Online Market: Difference in OnlineStart-up vs taking an existing business online vs Online Marketing.Challenges and opportunities of OnlineMarket. Leveragingthem through Online Marketing.Relevance of traditional management and marketing functions in today's online world.

2. Building Blocks: Building Blocks to capture Online Market. Online Start-up Idea. New idea vs me-too idea.Their benefits and challenges. Role of Innovation. Industry Examples.Building blocks to market an existing business online. Involved factors. Hybrid Approach: Mixing it with an innovative feature.**Web Identity:** Understanding features of varioustools likeWeb-sites, Micro Sites, Blogs, Social Media.Managing web identity. Concept of Cloud. Providers of Cloud and various platforms.Safeguards against identity thefts.

3. Managing Content:

Relating content to marketing.Factors that influence content. Cost of content. Social Media Positioning. Syncing content across online media-mix.Building keywords. Search Engine Optimisation: Google and Bing.**Visitor Interaction:** Building PR out of visitor interaction. Managing Feedback. Types of Negative Feedbacks, their scenarios and their role.

Online PR: Role of Social Media. Role of Innovation. How to liaison with influencers.

Online Collaboration and Distribution. How to limit competition. How to handle negative PR.

Cautions when competition is under attack of negative PR.

4. Online Advertising:

Types of Ads. How to selectAdwords. Bidding for Adwords. Understanding of Google Ads, Google Partner Ads, YouTube ads, Bing Ads, Facebook Ads, Cross Link Ads.

Competition Analysis.Search Engine Marketing. How to establish a proper mix with Search Engine Optimisation.

Building an online campaign. Measuring its effectiveness.Data: Managing Data as biggest marketing asset. How to read it for marketing. Sources of data.Online research.
How to establish a process to best use the data.Selection of an Online Agency or alternatives:
In-house Online Department vs Online Agency. Role of an Agency. Factors to select an agency. Establishing a process to take best out of an agency. Alternatives for small budgets.
Best Practices.Role of Industry Leaders:
Available resources and push from industry leaders like Google, Microsoft, Facebook to increase digital literacy and consequently digital solutions.

Suggested Books

-
- Digital Marketing by Vandna Ahuja
- E-marketing by Raymond D. Frost
- Internet marketing: Strategy, Implementation and Practice by Dave Chaffey

ES– 301A

Financing New Ventures and Business

Course Outcomes:

CO1: Detail the critical components of firms' business plans.

CO2: Evaluate the financial performance of the start-up firm through effective and accurate measuring techniques.

CO3: Establish short- and long-term financial planning processes.

CO4: Identify the legal aspects of the entrepreneurial environment.

CO5: Evaluate the venture capital needs of a start-up firm.

CO6: Examine the turnaround and exit strategies available to the entrepreneur**Course Contents:**

1. **Capital Market:** Primary and Secondary, Issues and Pricing Mechanism, IPO, FPO, Private Placement, Merchant Banker, Mechanism of Stock Market.
2. **Financial Estimates and Projections:** Estimating Working Capital Requirements, Estimation of Profitability and Position, Preparation of Projected Income Statement, Projected Cash Flow Statement and Projected Balance Sheet, Pre- feasibility Study, Numerical Problems/ case studies.
3. **Risk Analysis In Project Financing:** Sources, Measures and Perspectives on Risk, Risk Analysis Methods, Managing Risk in Projects, Project Selection under Risk, Risk Analysis in Practices, Risk Analysis by Financial Institutions, Numerical Problems/ case Studies.
4. **Sources of Financing New Ventures and Business –I** -Loan Syndication, Financing through FI, Sources of Raising Capital in International Markets.
5. **Sources of Financing New Ventures and Business –II** Venture Capital Financing & Angle Financing, Private Equity, Seed Capital, Venture Capitalist in India.
6. **Leasing:** Financial lease, Operating lease, Hire Purchase, Evaluation of Lease from Lessor and Lessee's Point of view.
7. **Innovative ways of Financing**- Contemporary issues in new Venture Financing, Boots trapping, and Case studies.

Suggested Books

- "Financial Management: Theory, Concepts and Problems" By R.P.Rustagi, Galgotia Publishing House.
- "Financial Management" By I.M.Pandey
- "Projects" by Prasanna Chandra, Tata McGraw Hill Publishing Company Ltd. Latest Edition "Project Management and Control" by Narendra Singh, Himalaya Publishing House
- "Project Management" by Vasant Desai, Himalaya Publishing House
- "Strategic Financial Management" by Ravi M. Kishore Taxmann Publishing Pvt. Ltd.

ES-302A

Managing Startups Strategic Framework for SMEs

Course Outcomes:

CO1: Develop a business idea for startups
CO2 Turn a business idea into a validated business model
CO3: TurnTurning a validated business model in a viable startup
CO4: Understand what starting your own business means
CO5: Understand which characteristics make successful entrepreneur career
CO6: Understand which skills you need to become a successful entrepreneur
CO7: Understand possible motives to start your own business or join a startup
CO8: Understand possible obstacles to start your own business
CO9: Understand reasons for startup failure

Course Contents:

1. Basics of Small Business Enterprise Small Business – Definition – Features – Role of Small Business in Economic Development – Reasons for Establishing Small Business – Quality of Small Businessmen – Advantages and Disadvantages of Small Business – Reasons for Failures of Small Business – Characteristics of Successful Small Businessmen – Different Stages of Small business – Steps in Setting up a Small Business – Crisis Management in Business – Relationships between Small and Large Units – Small Sector in India – A note on Family Business.

2. Dynamics of Small Business Concepts and Definitions of Small Scale Industries (SSIs) – Role of SSIs – Government Policy and Development of SSIs – Growth and Performance – SSI Sector and Committee Report – Reservation of items for SSI – Problems of SSI – Sickness of SSI: Causes, Symptoms and Cures – Prospects of SSI in free Economy.

3**. Institutions Supporting Small Business**- Central, State and Other Institutional Support for SSI – Technological Upgradation and Institutional facility for SSI – Incentives and Subsidies for SSI.

4. Management of Small Business Production Management – Financial Management – Marketing Management – Strategic Management – Personal Management – and Office Management in Small Business Enterprises. Statutory and regulatory compliances for the entrepreneurs- How to create competitiveness & settle in competition

5. Global Opportunities for Small Business Small Enterprises in International Business – Export Documents and Procedures for Small Enterprises – E-commerce and Small Enterprises – Exposure and Observation Visit: Poultry, Sericulture, Courier, Cell Phone Sales and Service, Dairy, Mushroom Cultivation, Ornamental Pottery, DyingUnit, Power loom and Handloom, Blood Bank, Rice Mill and Food and Fruit Processing

6. Role of Women SHGs in Micro Enterprises- Govt.roles and schemes in financing & promoting women enterprise

7. Taking Startup to next level- Strategies for expansion –Joint venture, acquisition, merger and franchising.

Suggested Books

-
- Barrow C. The Essence of Small Business, Prentice Hall of India, New Delhi, 1997.
- Bedapatai Mohanty, Economics of Small Scale Industries, Ashish, New Delhi, 1986

ES303A

Introduction to Taxation

Course Outcomes:

CO1: Provide working knowledge of the fundamental tax principles and rules that apply to commonly encountered transactions undertaken by companies and individuals

CO2: Instil an awareness in students that taxes can and often do constitute significant costs to businesses and households and therefore can have a major impact in economic and other decision-making, but that these costs are also potentially controllable through legitimate tax minimisation strategies

CO3: Knowledge of the wider economic, social, administrative-compliance and political contexts within which taxes are imposed

Course Contents:

1. **Introduction:** Definition of Income, Casual Income, Agricultural Income, Person, Assessee, Previous year, Assessment year, Gross Total Income, Total Income; Exempted Income; Heads of Income, Residential Status & Tax Liability.
2. **Income from Salary:** meaning & definition Different forms of Salary Allowances, Perquisites Valuation of allowances & perquisites. Valuation of allowances & perquisites. Provisions regarding Provident Fund, Entertainment Allowances, Professional Tax, computation of income from salary.
3. **Income from House Property**: Introduction & Important provisions, Types of House Property. Determination of Gross Annual Value, Municipal Tax & Deductions u/s 24.Treatment of unrealized rent & Vacancy period. Computation of income from house property for individual assesse.
4. **Corporate Taxation:** Corporation tax, Tax Planning, Tax Evasion, Tax Avoidance, Tax Management, Dividend Tax, Indian Company, Foreign Company. Vodafone Case.
5. **Computation of Total Income and Tax Liability of Companies**: Income from business, capital gain, income from other sources, Gross Total Income, Deductions from Gross Total Income, computation of Total Income. Introduction to MAT and Dividend Distribution Tax
6. **Special Tax Provisions:** Tax provisions in respect of Free Trade Zone and Special Economic Zone, Tax provisions in respect of Infrastructure Development, Tax provisions in respect of Backward Areas, Amalgamation related tax issues.
7. **Tax Payment:** Tax deduction at source, Tax collection at source, and Advance payment of tax.An introduction to indirect taxation.

Suggested Books

Income Tax –Law and Practice by H.C.Mehrotra& S P Goyal, Sahitya Bhawan, Agra

- Direct Taxes Planning and Business Tax Procedure by V.K. Singhania,Taxmann, New Delhi
- Corporate Tax Planning and Management by H.C. Mehrotra, Sahitya Bhawan ,Agra
- Indirect Taxes by H.C. Mehrotra Sahitya Bhawan ,Agra
- Indirect Taxes by V.S. Datey, Taxmann, New Delhi
- Study Material published by ICSI, Financial Dailies and journals like Business Standard, The Economic Times and Financial Express, Economic and Political Weekly.

ES-304A

Contemporary Issues in Strategy

Course Outcomes:

CO1: Describe the practical and integrative model of strategic management process that defines basic activities in strategic management

CO2: Identify the forces impacting on corporate and business strategies

C03: Be critically aware of factors involved in strategy making Assess the resources and constraints for strategy making in a business context

CO4 Explain the importance of social, economic and political forces; and technological

CO5: Investigate the impact of internationalisation on strategy making

:

Course Contents:

1. **Meaning, Need of contemporary issues in strategy**; Business Policy, Corporate Planning and Strategic Management; Single and Multiple SBU organisations; Strategic Decision–Making Processes – Rational–Analytical, Intuitive-Emotional, Political – Behavioural; Universality of Strategic Management; Strategists at Corporate Level and at SBU Level; Interpersonal, Informational and Decision Roles of a Manager.
2. **Mission, Business Definition and Objectives**; Need, Formulation and changes in these three; Hierarchy of objectives, Specificity of Mission and Objectives.
3. **SWOT Analysis** :General, Industry and International Environmental Factors; Analysis of Environment, Diagnosis of Environment – factors influencing it; Environmental Threat and Opportunity Profile (ETOP); Internal Strengths and Weaknesses; Factors affecting these; Techniques of Internal Analysis; Diagnosis of Strengths and Weaknesses; Strategic Advantage Profile (SAP).
4. **Strategy Alternatives**: Grand Strategies and their sub strategies; Stability, Expansion, Retrenchment and Combination; Internal and External Alternatives; Related and Unrelated Alternatives, Horizontal and Vertical Alternatives; Active and Passive Alternatives; International Strategy Variations.Contemporary examples of entrepreneurship concerns
5. **Strategy Choice Making**: Narrowing the choices; Managerial Choice Factors, Choice Processes – Strategic Gap Analysis, ETOP-SAP Matching, BCG Product – Portfolio Matrix, G.E. Nine Cell Planning Grid; Contingency Strategies; Prescriptions for choice of Business Strategy; Choosing International Strategies.
6. **Strategy Implementation**: Implementation Process; Resource Allocation; Organizational Implementation; Plan and Policy Implementation; Leadership Implementation; Implementing Strategy in International Setting.
7. **Strategy Evaluations and Control**: Control and Evaluation Process; Motivation to Evaluate; Criteria for Evaluation; Measuring and Feedback; Evaluation and Corrective Action.

   Contemporary case studies .

Suggested Books

- Lawrence R. Jauch and William F. Glueck, "Business Policy and Strategic Management", McGraw Hill Book Co., New York.
- "Strategic Management", Dreamtech Press, New Delhi
- Strategic Management by VSP Rao and Harikrishna
- Strategic Management by Upendra Kochru.

ES-305A
Production & Operation Management

Course Outcomes:

CO1: Provide an opportunity for the participants to understand the basic method of production management techniques and eventually to develop skills in problem-solving and decision-making.

CO2: Get acquainted with the basic aspects of Production Management. The course attempts to discuss various important planning, organizing and controlling aspects of Operations Management.

CO3: Reinforce the concepts of Production Management through various operational aspects of Production Management. Various important Production Management techniques will be covered with different problem-solving methodologies

Course Contents:

1. **Introduction To Production & Operations Management**- Definition, Production Functions and Its Environment, Types of Production System, Functions of Production / Operations Manager, Organization of Production Function, Difference between Production & Operations Manager, Basic concept of Productivity Management: Introduction, Factors Influencing productivity, Its influence on efficiency & performance of System

2. **Facility Location and Product/ Service Planning**: Product Selection and Design, Process and Technology Selection, Choice of optimal Location, Factor Effecting Plant Location, Location Models (Centre of Gravity Model, Median Model, Break Even Analysis, Brown & Gibson Model).

3. **Layout Decision**: Type of layout, Layout Factors, Layout Procedure and Techniques, Line Balancing concept of line mass Production System, Objective of assembly Line Balancing , Material Handling Concepts.

4. **Forecasting and Aggregate Production Planning:** Introduction to Forecasting, Methods of Forecasting (Delphi, Moving Average, Least Square), Aggregate Planning Strategies, Quantitative Methods of aggregate Planning.

5. **Master Production schedule (MPS) and Material Requirement Planning (MRP):** MPS concept and Its Calculations, BOM (Bill of Materials), Structure of BOM, MRP Concept and MRP Planning, Concept of capacity requirement Planning and Resource requirement planning.

6. **Operation scheduling**: ProductionActivity Control for Mass Manufacturing, Batch Processing and Job shop n-jobs on single Machine, n-jobs on Two/ Three Machines (Johnson's Rule) , 2- jobs on machine (Graphical Method – Aker's Algorithm).

7. **Capacity Calculation and utility of Modern Production and Management Tools:** Determination of Plant Capacity, Capacity Measurement and Decision, Concept of Just in time Manufacturing (JIT), Computer integrated Manufacturing (CIM), Computer aided Manufacturing and design (CAD/CAM) and Flexible manufacturing system (FMS), Kaizen, World class Manufacturing.

Suggested Books

- Applied Production And Operations Management- James R. Evans
- Production & Operations Management – K. ShridharaBhat
- Production and Operation Management- R. Paneeerselvam
- Modern Production/ Operations Management, Buffa ES &SarinRk.
- Operations Management- Norman Gaither, Greg Frazier
- Operations Management: Strategy and Analysis, Krajewski Lee J &Ritzman Larry P, Addison Wesley.
- Productivity Management – A system Approches:PremVrat, G.D Sardana& BS Sahay
- Productivity Engg. & Management- David V Seemanth (TMH)

ES306A

Organizational Behaviour

Course Outcomes:

CO1: Learning concept & development of Organisational Behaviour
CO2: Understanding Individual behavior and theories of motivation and their application
CO3: Basic understanding of organizational communication and managing misbehavior
CO4: Understanding Group Behaviour and learning skills concerning leadership with theories
CO5: Basic understanding of organizational culture, climate, effectiveness and change.

Course Contents:

1. - Introduction:

1. Organization: Concept, Features, Types and Significance;

2. Organizational Behaviour: Concept and Features; Organisational Behaviour Models: Autocratic, Custodial and Supportive.

2. – Individual Behaviour in Organisation:

1. Personality: Meaning and Determinants. Personality and Behaviour.
2. Perception: Meaning and Factors Affecting Perception, Application of Perception in Organisational Behaviour.
3. Attitude: Meaning and Features; Factors Affecting Attitude Formation.
4. Values**:** Meaning, Types and Sources.

3. Motivating Behavoiur

1. Motivation: Meaning and Theories of Motivation – Maslow's Needs Hierarchy Theory, Herzberg's Two Factor Theory and McGregor's Theory X and Y.

2. Learning: Concept, theory and application.

4. Group Behaviour in Organisation:

1. Group: Concept, Reasons of Group Formation, Types of Groups, Theories of Group Formation: Propinquity Theory and Homan's Interaction Theory, Group Cohesiveness.
2. Work-Team: Meaning and Types of Teams.
3. Leadership: Concept and Importance; Styles of Leadership; Leadership Theories: Charismatic and Behavioural.

5. Organisational Conflicts:

Concept, Stages of Conflicts, Issues involved in Conflicts, Classes of Conflicts, Modes of Handling Conflicts.

6. Organisational Change:

Concept and Nature; Forces of Change, Resistance to Change, Management of Change.

7. Case studies: Minimun one case based on each unit.

Books:

1. Fred Luthans: Organisational Behaviour
2. W. L. French and C. L. Bell: Organisational Development: Behavioral Science Interventions for Organisation Improvement

ES307A
Enterprise Resource Planning

Course Outcomes:

CO1: Demonstrate a good understanding of basic issues in Enterprise Systems,

CO2: Explain the scope of common Enterprise Systems (e.g., MM, SCM, CRM, HRM, procurement)

CO3: Explain the challenges associated with implementing enterprise systems and their impacts on organizations

CO4: Describe the selection, acquisition and implementation of enterprise systems

(Contents yet to prepare)

ES-401A
Legal Aspects of Business

Course Outcomes:

CO1: This course is designed to provide the student with knowledge of the legal environment in which a consumer and businesses operates.

CO2: Provide t knowledge of legal principles.

CO3: Demonstrate the relationship between law and economic activity by developing in students and awareness of legal principles involved in economic relationships and business transactions.

CO4: Develop acceptable attitudes and viewpoints with respect to business ethics and social responsibilities

Course Contents:

1. The Indian Contract Act, 1872

General principles of contract, classification of contract and key terms Essential elements of a valid contract viz., offer & acceptance competence of contracting parties, free consent, consideration, legality of object and consideration, void agreements. Performance of contracts, discharge of contract, and breach of contract remedies for breach of contract. Specific contracts viz, contingent contracts, quasi-contracts, contracts of indemnity and guarantee, contract of bailment, contract of agency.

2. The Indian Partnership Act 1932

General Principles- Meaning of partnership, essential features of partnership, types of partners. Formation of Partnership-Partnership deed, registration of partnership firms, position of a minor partner, duration partnership firm, rights of outgoing partner. Rights and Liabilities of Partners- Relations of partner with each other, rights of partner, duties of partners, relation of partner with third parties.

3. The Sale of Goods Act, 1930

Introduction-Definition and essentials of a contract of sale Goods and their classification.
Meaning of price Conditions and Warranties Performance of a contract of sale of goods
Unpaid seller and his rights Remedies for breach of contract

4. The Companies Act, 2013

Company- Meaning and definition, characteristics of joint stock companies, types of companies difference between private and public limited companies. **Promotion and incorporation of companies**-Promotion, Incorporation of companies, promoters: meaning and importance, process of incorporation: preparation contents and importance of various documents to be filed, Memorandum of Association, Articles of Association, certificate of commencement of business. **Memorandum of Association and Articles of Association**-Contents and alteration, **Capital of the company**- Share and its types, Debentures and its types, difference between shares and debentures, share certificate, share warrant and stock, **Prospects**-Meaning and definition, contents and registration of prospectus, issue and allotment of shares, **Management of Companies**- Board of Directors: Appointment, Qualifications and disqualification, powers, duties and position of directors, removals of directors, **General Principles of Meetings**-Statutory Meeting, Annual General Meetings, Extra-ordinary General Meetings, Board Meetings, **Winding-up of Companies**- Meaning and types of winding-up, provisions relating to winding-up.

5. The Negotiable Instruments Act, 1881

General Principles- Meaning of negotiable instrument, types of negotiable instruments, ambiguous instruments, maturity of negotiable instrument, payments of negotiable instruments, dishonor of negotiable instruments, provisions of sections 138 to 145.

6. The Consumer Protection Act, 1986

General Principles- Meaning & definition of various important terms. Rights of Consumers. Nature & scope of remedies available to consumers.

7. An overview of following Laws:

The Information Technology Act, 2000**,** Foreign Exchange Management Act, 1999, The Competition Act, 2002, Limited Liability Partnership Act, 2008, the Competition Act, 2002 the SEBI Act, 1992, Laws relating to Intellectual Property- Provisions relating to patent, copyright and trademarks and Environment Protection Laws

Suggested Books

Mercantile Law by S.S. Gulshan
Elements of Mercantile Law by N.D. Kapoor
Business Legislation for Management by M.C. Kuchhal
Business Law by S.K. Agrawal
Legal Aspects of Business by Akhileshwar Pathak

ES-402A

RURAL & INDUSTRIAL MARKETING

Course Outcomes:

CO1: Develop an insight into rural marketing regarding different concepts and basic practices in this area.
CO2: Discuss the challenges and opportunities in the field of rural marketing.
CO3: Understand significance of the rural markets.
CO4: Understand nature and characteristics of rural markets and factors contributing to the change in the rural market
CO5: Deal with problems in Rural Marketing

Course Contents:

1. Rural Economy - Rural - Urban disparities-policy interventions required - Rural face to Reforms - The Development exercises in the last few decades.

2.Rural Marketing - Concept and Scope - Nature of rural markets - attractiveness of rural markets - Rural Vs Urban Marketing - Characteristics of Rural consumers - Buying decision process - Rural Marketing Information System - Potential and size of the Rural Markets

3**. Selection of Marketing Mix Elements** - Product Strategy - Product mix Decisions - Competitive product strategies for rural markets. Pricing s trategy - pricing policies - innovative pricing methods for rural markets - promotion strategy - appropriate media - Designing right promotion mix - promotional campaigns. Distribution - Logistics Management - Problems encountered - selection of appropriate channels - New approaches to reach out rural markets – Electronic choupal application

4. Introduction to Industrial Markets - Industrial Marketing System, Concepts and Characteristics - Types of Industrial Markets - Industrial Buyer Behaviour

5. Industrial Marketing Environment: Strategies for managing industrail marketing environment, Strategic planning process in industrial marketing.

6. Strategic Industrial Marketing (S.T.P.) –Basis, target marketing & Positioning Concept and Strategies

7. Classification of Industrial Products and Services - New Product Development and Introduction - Industrial Product Management - Pricing Decisions in Industrial Markets. Formulating Channel Strategies and Physical Distribution decisions – Channel Management - Promotional Strategies for Industrial Goods/ Services.

Suggested Books

- Balaram Dogra&Karminder Ghuman, Rural Marketing: Concept & Cases, Tata McGraw-Hill Publishing Company, New Delhi, 2008.
- A.K. Singh & S. Pandey, Rural Marketing: Indian Perspective, New Age International Publishers, 2007.

ES-403A
Business Ethics and Corporate Governance

Course Outcomes:

CO1: Develop the understanding of the ethical influences on economic, financial, managerial and environmental aspects of business
CO2: Develop an ability to critically analyze ethical issues in business
CO3: Develop knowledge of corporate governance

Course contents:

UNIT 1: Introduction to Business Ethics,
Definition & nature, Characteristics of ethical problems in management, Ethical theories; Causes of unethical behaviour; Work ethic, Values, Norms, Beliefs and Standards

UNIT 2 : The Institutionalization of Business Ethics
Ethics and organisation, Ethics in practice- in functional areas (Like HR, Marketing, Finance), Intellectual Property rights, Code of ethics; Competitiveness, organizational size, profitability and ethics, Developing an Effective Ethics Program

UNIT 3: Ethical Decision-Making and Ethical Leadership
Models of Decision making, Individual Factors: Moral Philosophies and Values, Indianism and Indian Value Systems, Servant Leadership

UNIT 4 : Corporate Governance:
Evolution, Principles, Main Drivers, Theories and Models, Global Practices on Corporate Governance in the World and their impact on corporate world

UNIT 5 : Business Environment
Political and Legal Environment, Cultural Environment, Managing Across Cultures, Negotiating Across Cultures, Economic Environment, Technological Environment, Broader Ethical issues in society

UNIT 6: Corporate Social Responsibility
Stakeholder Management and Social Responsibility, Big Business and society Business, Ecological/Environmental issues in the Indian context, Understanding CSR, CSR in India, World Economic Growth and the Evolution of CSR.

UINIT 7: Sustainable Businesses:
Concept of Sustainable Development, Gandhian Thought on Sustainable development, dimensions of sustainable development – Environmental, Economic and Social, Indian & Global Perspective on Sustainable Development

Suggested Books

- Business Ethics, CSV Murthy, Himalaya Publishing
- Business Ethics and Corporate Governance, ICFAI publication
- Business and its Environment Davis, Kaith and Blostorm, Robert-.
- Corporate Social Responsibility Beeslory, Michel and Evens –.

ES404A

International Business

. **Course Outcomes:**

CO1: Explain how international factors affect domestic concerns;
CO2: Explain regional economic integration and economic and political integration;
CO3: Explain the main institutions that shape the global marketplace;
CO4: Explain businesses expansion abroad;
CO5: Explain the key legal issues related to businesses operating in other countries;

Course Contents:

1. **Introduction to International Business:** Nature of international business, need and importance of international business stages of internationalization, approaches to international business theories of international business, mercantilism, absolute advantage, comparative advantage, factor endowment, competitive advantage, Tariff and Non-tariff measures.

2 **International Monetary System:** History of the System & Need for the System, IMF, World Bank, Foreign Exchange System.

3. **Regional Economic Co-operation:** Forms of regional groupings (Trade Blocks); Integration efforts among countries in Europe, North America and Asia & UNCTAD, WTO– an overview.

4. **International Business Environment:** National and foreign environments and their components - economic, cultural and political-legal environments; Trends in India's foreign trade.

5. **International Financial Environment:** Foreign investments - types and flows; foreign investment in Indian perspective.

6. **Financing of foreign trade and payment terms:** Basic documents in foreign trade, Sources of financing foreign trade, Payment terms of Export transactions.

7. **Opportunities in International Business- with special reference to India:** Strategic alliances, mergers and acquisitions; Indian joint ventures and acquisitions abroad; International business and ecological considerations.

Suggested Books

- Charles, W.L. Hill., "International Business", New Delhi: Tata McGraw-Hill, 2003.
- Johnson, ,Derbe., and Colin Turner, "International Business - Themes & Issues in the Modern Global Economy", London: Roultedge, 2003.
- Cherunilam, Francis., "International Business: Text and Cases", Prentice Hall of India Ltd., 2004.
- John, H. Daniels and Lee H. Radenbaugh," International Business Environments and Operations, Delhi: Pearson," (2001).
- Justin, Paul., "International Business", Prentice Hall of India Ltd., 2003.
- RBI, Report on Currency & Finance, various issues.
- P.G.Apte, "International Financial Management", Tata McGraw Hill.

ES-405A

Human Resource Development

Course Outcomes:

CO1: Sensitizing students towards developing employees for achieving personal and organizational goals.

CO2: It will give a holistic perspective of the organization keeping 'human' in the centre. It enables students to design texture of the organization around human

CO3: It empowers students to hone skills to address the realities of organizations while developing context specific strategies for human resource development. It will make the students to derive the employee development approaches.

CO4: It makes students to learn the techniques of HRD program application and trends like Competency mapping, Balanced Score Card etc.

CO5: A simulated situation is created through case method of learning to empower students to appreciate dilemmas of real life. It is focussed on HRD practices in Government organisation and Industries.

Course Content:

1. **Concept of HRD:-** Evolution of Human Resources Development, objectives of HRD, Goals of HRD, Importance of HRD. A framework for the HRD process, HRD functions, Role of a HRD professional
2. **Orientation:-** Company Orientation, Department Orientation, Orientation kit, Orientation Length and Timing.
3. **Training:-** Defining Training, Objectives of Training, Types of training, Systematic approach to training, training methods
4. **Performance Appraisal:** Performance Appraisal Methods, Errors in performance appraisal
5. **Carrier Planning and Development:** Coaching- Role of Supervisor and managers in coaching, Coaching to improve poor performance .process of employee coaching
6. **Counseling and Mentoring:** Objectives of Employee Counseling , Employee counseling skills, functions of Employee counseling, Concept of mentoring, characteristics of Mentoring Principles of mentoring, Qualities of good mentor and mentee, importance of good mentoring, Role of mentor, Mentoring process, benefits of mentoring
7. **HRD Strategies:-**Formulation and Implementation of HRD Strategies, Creating a World Class Organization.

Suggested Books

1. Jerry W Gilley and Stevens A. England, "Principles of HRD", USA., Addison Wesley, 1989.
2. Lloyd L. Byars, Leslie W Rue, "HRM, Third Eddition"
3. T.V.Rao, "HRD Audit", New Delhi, Sage Publications, 1999.
4. "HRD", Randy Desimone, Jon M.Aner, David M.Harris
5. "Managing People",V.S.P, Rao, Excel Book, New Delhi.
6. "Human Resource Planning", Deepak Kumar Bhattacharya.
7. "Studies in HRD", H.L Verma, BS Bhatia, MC Garg

ES-406A

Logistics and Supply Chain Management

Course Outcomes:

CO1: Treat the subject in depth by emphasizing on the advanced quantitative models and methods in logistics and supply chain management and its practical aspects and the latest developments in the field.

CO2: Impart knowledge and understanding to students on Supply Chain Management and its relevance to today's business decision making.

CO3: Gain the knowledge of possibilities of efficient optimization and management of operation in Logistics Management and also the ability to apply them in the enterprise reality.

Course Contents:

1. **Introduction to logistics & Supply Chain Management;** Definition, Importance & Scope; Operational objectives of logistics; Logistics functions; Difference between Logistics &SCM; Logistics interface with production and marketing & Value added role of Logistics.

2. **Transportation systems.:** Functions & Principles of Transportation; Participants in Transportation Decision making, Elements in transportation Infra structure, Transportation Planning Parameters (Components of Transportation Decision), Modes of transportation, Modal characteristics & Comparison. Transportation Practices across different modes. Concept of Multimodal Transportation & Containerization

3. **Warehousing and distributing centers & Inventory Control:-** Evolution of strategic warehousing their location; Functions of Warehouse, Economic & Service benefits of warehouse, Principles of Warehouse Design, Warehousing alternatives, Warehousing Strategy(Location, Type, No of warehouses), Inventory management decisions;

4. **Packaging and materials handling: -** Material handling importance & scope, Material Handling Principles, Types of Material Handling Equipments, Unitization & Palletization, Packaging & Labelling, Importance & scope, Types of Packaging, Functions of Packaging.

5. **Innovations in Logistics (Use of Information Technology In Logistics & Supply Chain Management & Logistics future directions):-** Information Functionality in Logistics & SCM, Use of Information Technology in Transportation, Warehousing & Material Handling, Automated Storage / Retrival Systems, Information Directed Systems. Dispatch and routing decisions**: -** Challenges posed by routing, Principles of proper routing plan. Routing Decisions & Analysis.

6. **Legal Aspects in Logistics:-** Legal Aspects pertaining to Road, Rail, Water & Air Transport.

7. **International logistics management:** Documentation & Procedures, Logistics system analysis and design; Logistics audit and control, Supply Chain Integration**.**

Suggested Books

- Bowersox, Closs, Cooper “Supply Chain Logistics Management”. The McGraw- Hill Companies.
- Bhattacharyya S.K. “Logistics Management”. S.Chand & Company.
- Ballau, Renald H, “Business Logistics Management”. Englewood Cliffs, New York: Prentice Hall Inc, 1992.
- Beal K. “A Management Guide to Logistics Engineering”. U. S. A. Institute of Production Engineering, 1990.
- Benjamin S. B. “Logistics Engineering and Management”. Englewood Cliffs, New York: Prentice Hall Inc., 1996.
- Bowersox, D J and Closs, D. J. “Lotistics Management: A system Integration of Physical Distribution”, New York: MacMillan, 1986.
- Christopher, M. “Logistics and Supply Chain Management: Strategies for Reducing Costs and Improving Services”. London: Pitsman, 1992.
- James C.J. and Wood, Donald F. “Contemporary Logistics”. New York: Macmillan, 1990.

ES407A

Enterprise Resource Planning I

Course Outcomes :

CO1 Use one of the popular packages to support business operations and decision-making,

CO 2 Communicate and assess an organization's readiness for enterprise system implementation with a professional approach in written form,

CO 3 Demonstrate an ability to work independently and in a group.

(**Course contents yet to prepare)**

DEVI AHILYA VISHWAVIDYALAYA, INDORE
(Formerly University of Indore) , NAAC "A" Grade
State University of Madhya Pradesh, India

International Institute of Professional Studies

IIPS
DAVV
International Institute
of Professional Studies

Syllabus
Of
Master of Business Administration (Management Science) 2 Years

Academic Session : 2018-20

THE DIRECTOR DESK

Dear Scholar,

Welcome to one of the most prestigious, academic institution in central India offering professional education in Management, Computer Science and Commerce Streams. It has state of art infrastructure, pool of multi discipline faculty and devoted staff that creates a conducive environment for academic excellence and holistic development of yours, paving the way for your bright career prospects. Team IIPS looks forward to contribute towards your successful future life.

Team IIPS-MANAGEMENT

Dr. Anand K. Sapre, Professor, Director Ph D,MBA	**Dr. B.K. Tripathi, Professor** Ph.D (Mgt), MBA(HR), Ph.D (Chem), M.Sc (Chem)	**Dr. Yamini Karmarkar, Reader,** Ph D, FDP-IIMA, MMS
Dr. Geeta Sharma, Reader Ph D , MBA (Finance), PGDPM&IR	**Dr. GeetaNema, Reader** Ph D , MBA	**Dr. Jyoti Sharma, Reader** Ph.D., MBA (HR), M.A.(Psy), PGDCABM
CS. Dr. Manish Sitlani, Reader Ph D , ACS, MBA, M Com , LLB (Hons),UGC NET	**Dr. Preeti Singh, Reader** Ph.D.,MBA, B.Ed(DE)	**Dr. Suresh C. Patidar, Reader,** Ph D, MBA, M.Com, CS Inter, UGCNET, LLB(Hons)
Dr. Ravindra Yadav, Sr Lecturer Ph D , FDP-IIMA,MBA, DEE	**Dr. Manminder S. Saluja, Sr Lecturer** Ph D (Economics), M Phil, MA	**Dr. Anshu Bhati, Sr Lecturer** PhD, MBA(APR)
Dr. Pooja Jain, Sr Lecturer PhD, MBA(APR)	**Dr. Sujata Parwani, Sr Lecturer** Ph.D. (Economics) , M.A., M.Phil	**Dr. Kapil Jain, Sr. Lecturer** PhD(Mgt), MBA(Fin), M Phil., M Com.
Dr Surendra Malviya, Lecturer Ph D, MBA (E Com)	**Dr Muskan Karamchandani, Lecturer,** PhD, MBA (MS)	**Dr. Gaurav Purohit, Lecturer** Ph D , MBA (Tourism)
Dr. Nirmala Sawan, Lecturer M Sc, Ph D (Statistics)	**Dr. Shilpa Bagdare, Lecturer** PhD, MBA(Mktg)	**Dr.Navneet Kaur Bhatia,Lecturer** Ph D, MBA (Finance)
Dr. Prerna Kumar, Lecturer, PhD, MBA(Mktg)	**Mr. Naresh Dembla, Lecturer** ME (Comp Sc Engg), MBA, BE	**Dr Shikha Pandey, Lecturer** Ph D, MBA(Tourism)
Dr. Jyoti Jain, Lecturer Ph.D., MBA, MA	**Dr. Neha Chouhan, Lecturer** PhD, MBA	**Mr Ravi Bunkar, Lecturer** MBA (Mktg)
Ms. Monalisa Khatre, Lecturer MBA (Mktg)		

MrYogendra Singh Bawal, Network Administrator Incharge, Administrative Officer M Sc(CS), M Sc. (Elex & Comm.), CCNA	**Dr Suresh Patidar,** Incharge, Placement Officer Ph D, MBA, M.Com, CS Inter, UGCNET, LLB(Hons.)
Dr. Kapil Jain, Ph.D.(Mgt),MBA(Fin), M Phil, M Com. Program Officer, National Service Scheme (NSS) Coordinator, Red Ribbon Club, MPSACS Warden, JN Boy's Hostel	**Dr. Sujata Parwani**, Ph.D. (Economics), M.A., M.Phil, Program Officer, National Service Scheme (NSS)

DAVV at a Glance

There are twenty seven teaching departments offering undergraduate, post-graduate and research programs in sixteen Faculties. It is amongst the first few Universities in the country to introduce innovative and integrated courses in the area of science, engineering, technology, management, law and media. The university has 270 affiliated colleges in addition to University teaching departments and centers. The University provides and nurtures research environment for promoting high quality original research. It offers Ph.D. and M. Phil. Programs in all the subjects**.**

The Hon'ble Governor of the State is the Chancellor of the University. The University functions as per Act, Statutes, Ordinances and Regulations. The Registrar, Examination Controller and Finance Controller of the University assist the Vice Chancellor in administrative, examination and financial matters. The University has duly constituted bodies - Executive Council, Academic Council, Boards of Studies, Finance and other committees for decisions on major academic, administrative and financial matters.

The University is prepared to embrace future challenges, explore new horizons and keep moving ahead on the path of excellence, innovation and enlightenment.

About IIPS

International Institute of Professional Studies (IIPS), a pioneer institute under Devi AhilyaVishwavidyalaya DAVV was established in 1991 to provide a new dimension to professional education. It has emerged as one of the best management schools of Central India. The Institute is located in the sprawling Takshashila campus of the University surrounded by lush green environment. The Institute offers following courses

1. Master of Business Administration (Management Science) (2YDC)
2. Master of Business Administration (Management Science) (5YDC) Integrated Programme
3. Master of Business Administration (Advertisement and Public Relations) (2YDC)
4. Master of Business Administration (Tourism Administration) (5YDC) Integrated programme
5. Bachelor of Commerce (Hons.) (3YDC)
6. Master of Business Administration (Entrepreneurship) (2YDC)
7. Master of Business Administration (Tourism Administration) (2YDC)
8. Master of Computer Application (6YDC) Integrated Programme
9. Master of Technology (Information Technology) (5YDC) Integrated Programme
10. Doctor of Philosophy (PhD) in Management
11. Doctor of Philosophy (PhD) in Computer Science

The lush green campus of the IIPS Includes an academic complex of classrooms, seminar room, an auditorium, a well-equipped library, computer labs and development center and administrative offices. The classrooms are specious and well equipped.

IIPS has one of the finest computing environments among the management Institutions in Central India. The institute provides internet facility through Wi-Fi to the students in campus.

About MBA (MS) 2yrs

Master's in Business Administration (Management Science) was introduced by D.A. University in the year 1992 in view the increasing requirements of the industry in the post liberalization era. This program approved by AICTE has a course curriculum designed with inputs from industry experts. The course provides ample flexibility in terms of choice of electives from first semester onwards. It is designed to accelerate learning amongst students. The options of dual and single specialization offer opportunity to nurture professionals and entrepreneurs in diversified areas like Finance, Marketing, HR etc. The inputs in the form of , MRPs, summer Internship etc. add to the creativity, leadership skills and ability to work in Team.

Programme Outcome :-The two year full time postgraduate program in management aims at developing leadership qualities, business skills and managerial competencies blended with societal concern among the stakeholders. The focus of MBA (MS) program is on developing an understanding of "Management as Science". After finishing the program students will be able to

PSO1: Develop leadership qualities, business skills and managerial competencies blended with societal concern among the stakeholders.
PSO2: Inculcate skills essential for managers i.e. decision making skills, leadership skills, communication skills and team working abilities.
PSO3: Comprehend fundamental Knowledge in –Management, Business Accounting, Financial Management, Marketing Interpersonal & Organization Behavior and Human Resource Management.
PSO4: Inculcates an attitude of compassion towards fellow beings, commitment towards work and sense of social purpose among students for becoming responsible citizens.
PSO4: Equip students to build career in Sales, Marketing, Advertising, Retail, Market Research, Equity analysts, Banking, Insurance, Consultancy, Business analyst, Selling Financial Products, managing Peoples, Performance Planning, Training and Development, HRD etc.

	Semester I		**Credit**	**Semester II**		**Credit**
Compulsory	FT – 101	Principles and Practices of Management	4	FT 201	Principles of Marketing Mgt.	4
Compulsory	FT – 105	Human Resource Management	4	FT 202A	Interpersonal & Org. Behaviour	4
Compulsory	FT – 107 D	Managerial Economics	4	FT 203B	Business Economics (Macro)	4
Compulsory	FT-112 A	Business Law	4	FT 210A	Research Methodology	4
Compulsory	FT – 113	Business Mathematics and Statistics	4	FT 205	Financial Management	4
Compulsory	FT -114	Soft Skills for Managers	4	FT 215	Business accounting II	4
Elective 1	FT – 102C	Business Accounting I	4	FT 206B	Quantitative Techniques For Business	4
Elective 2	FT- 116	Production & Operations Mgt.		FT 204C	IT for Business	
Compulsory	FT – 117	Lab:DataVisualisation	2	FT 216	Lab: Research Tools	2
		Total Valid Credit	**30**		Total Valid Credit	**30**
		Comprehensive Viva-Voce	04		Comprehensive Viva-Voce	04
		Total Semester Credits	**34**		Total Semester Credits	**34**

	Semester III (Group A is for Dual specialization and Group A plus B is for Single Specialization)		Credit	Semester IV (Group A is for Dual specialization and Group A plus B is for Single Specialisation)		Credit
Compulsory	FT-301E	Strategic Management	3	FT-402B	Business Ethics and Corporate Governance	4
Elective	FT302E	Decision Making Skills	3			
	FT 314B	Dissertation				
		GROUP A			**GROUP A**	
Marketing	FT-304MA	Integrated Marketing Communication	4	FT-416MA	Product and Brand Management	4
	FT-305MA	Consumer Behavior	4	FT-417MA	Strategies and Modeling in Marketing	4
	FT-307MA	Sales and Distribution Management	4	FT-418MA	Service Marketing	4
Finance	FT-314FA	Security Analysis and Portfolio Management	4	FT-416FA	International Finance	4
	FT-315FA	Financial Markets and Financial Services	4	FT-419FA	Taxation for Managers	4
	FT-316FA	Insurance and Banking	4	FT-418FA	Project Finance	4
HR	FT-314HA	Human Resource Development	4	FT-416HA	Performance Planning and Appraisal	4
	FT-315HA	Training and Development	4	FT-417HA	Industrial Relations and Labor Law	4
	FT-316HA	Managing People	4	FT-418HA	Organization Development	4
		GROUP B			**GROUP B**	
Marketing	FT-311MB	Digital Marketing	4	FT-416MB	Industrial Marketing	4
	FT-312MB	Global Marketing	4	FT-417MB	Logistic and Supply Chain Management	4
	FT-313MB	Rural and Retail Marketing	4	FT-419MB	Data Analytics	4
Finance	FT-309FB	Corporate Financial Analysis	4	FT-416FB	Bank Management	4
	FT-310FB	Financial Engineering and Risk Management	4	FT-417FB	Strategic Financial Management	4
	FT-40FP	Financial Planning and Wealth Management	4	FT-419FB	Data Analytics	4
HR	FT 311 HB	Strategic HRM	4	FT416 HB	International HRM	4
	FT 312 HB	HR Planning and Audit	4	FT419HB	Data Analytics	4
	FT 313 HB	Compensation and Reward Management	4	FT 418HB	HR Based Business Process Transformation	4
		Total Valid Credit	**30**		**Total Valid Credit**	**28**
		Comprehensive Viva-Voce	04		Comprehensive Viva-Voce	04
		Total Semester Credits	**34**		**Total Semester Credits**	**32**

FT-101 Principles and Practices of Management

Course Outcome: Student will…….

CO1: Gain an understanding of the functions and responsibilities of the manager, and providing them with necessary tools and techniques to be used in the performance of managerial job.
CO2: Examine the management theory with corresponding opportunities for application of these ideas in real world situations.
CO3: Understand the managerial functions of Assessing, Planning, Organizing, and Controlling. Both traditional and cutting-edge approaches are introduced and applied.
CO4: Understand implications of managerial action and inaction.

Course Contents

Unit I- Management: Concept and definition, Functions of Management, Principles of Management, Management skills, Evolution of Management

Unit II- Planning I: Concept and Nature of Planning, Planning Process, Implementation of Plans, Advantages and limitations of Planning.

Unit III- Planning II: Concept and Nature of Objectives, Management by Objectives Benefits and weaknesses of MBO. Types of Planning- Strategies, Policies and Planning Premises

Unit- IV- Decision Making:, Types of Decision making, Decision making process. Programmed and Non-programmed Decisions. Decision making under Certainity, Uncertainity, and Risk.

Unit V- Organizing: Nature of Organizing, Organization structure, The Span of Management and, Level of Authority, Departmentation, Line and Staff Relationship, Staffing Fundamentals

UnitVI-Directing - Nature and Purpose of Directing, Motivation Leadership and Communication

Unit VII Coordination and Control: Concept of coordination, types, process of Control, Principles or Requirements of Good Control System, Techniques of Controlling.

One case study on each unit and Comprehensive Case study

Text Readings

1. Harold Koontz, O'Donnell and HeinzWeihrich, "**Essentials of Management"**, New Delhi, Tata McGraw Hill.
2. R. D. Agrawal, "**Organization and Management**", New Delhi, Tata McGraw Hill, 1995.

CORE- FT- 107D Managerial Economics

Course Outcome: Student will…….

CO1: Build up a basic understanding about the basic foundation of economic concepts and tools those have direct managerial applications.
CO2: Sharpen analytical skills through integrating knowledge of economic theory with decision making techniques.
CO3: Understand competitive markets as well alternative market structures

Course Content

I- Introduction - Managerial economics – Meaning, definitions, importance, Significance, scope of managerial economics. Functions of Managerial Economist. Related disciplines & Managerial economics.

II- Demand concept- Demand:- Concept, Types, Function, Cardinal Utility Approach, Ordinal Approach, Revealed Preference Theory, Law of Diminishing managerial utility, Elasticity of Demand, Demand Forecasting

III- Production Function - Supply and Law of Supply, Production Analysis, Law of variable Proportion, Return to scale, Isoquants & least cost combination of inputs, Ridge lines and Expansion Path.

IV - Cost Concept - Cost: - Concept & Types, Short Run and Long run Cost Analysis

V - Market Structure- Price determination under different markets: - Perfect competition, Monopoly, Price discrimination under Monopoly. Monopolistic competition, Oligopoly

VI - Theory of firm: - Managerial Theories: Baumol's Sales Maximization Theory, Williamsan's Managerial Discretion Theory.

VII -Profit Planning:- Break even analysis and cost control.

Suggested Books:

- Modern Micro Economics –Koutsoyiannis, Palgrave Macmillan
- Managerial Economics - Peterson &Levis, Pearson Education
- Managerial Economics - P.L. Mehta, Sultan Chand & Sons
- Micro Economics – Sundaram&Vaish, Vikas Publishing
- Managerial Economics – D.M. Mithani, Himalaya Publishing

CORE- FT- 113 Business Mathematics and Statistics

Course Outcome: Student will…….

CO1 will be equiped with the mathematical and statistical techniques and their application to business problems. The emphasis will be on the concepts and application rather than derivations
CO2 develop formal quantitative approach to problem solving and an intuition about situations where such an approach is appropriate.
CO3 comprehend basic tool kit of relevant tools which would be necessary for decision-making; to develop students' diagnostic and analytic skills through suitable logical problems to types.

Course Contents:

I – **Introduction**- Role of Mathematics and statistics in Business Decisions

II- Theory of Sets. Equations: Linear, Quadratic & Simultaneous Equations, Matrix Algebra, Solution of Linear Equation by Matrix method. Arithmetic Progression, Geometric Progression and Harmonic Progression.

III- Measure of Central Tendency: Mean Mode Median, Geometric Mean and Harmonic Mean.Partition Values (Quartiles, Octiles, Deciles, Percentile).

IV- Measures of Dispersion: Range Quartile Deviation, Mean Deviation, and Standard Deviation, Skewness and Kurtosis.

V- Correlation Analysis: Rank Method & Karl Pearson's Coefficient of Correlation and Properties of Correlation.

VI- Regression Analysis: Fitting of a Regression Line and Interpretation of Results, Properties of Regression Coefficients and Relationship between Regression and Correlation,

VII- Theory of Probability and Probability Distribution: Binomial, Poisson and Normal Distribution.

Suggested Books

1. Business Mathematics and Statistics --Goel and Goel
2. Business Statistics -- S C Gupta
3. Statistics for Management -- R.I. Levin and D.S.Rubin

CORE- FT - 112A BUSINESS LAW

Course Outcome: Student will…….

CO1: Gain knowledge of the legal environment in which a consumer and businesses operates.
CO2: Get aquatent with knowledge of legal principles.
CO3: Understand relationship between law and economic activity and awareness of legal principles involved in economic relationships and business transactions.
CO4: Build acceptable attitudes and viewpoints with respect to business ethics and social responsibilities.

Course Contents:

1. The Indian Contract Act, 1872

General principles of contract, classification of contract and key terms Essential elements of a valid contract viz., offer & acceptance competence of contracting parties, free consent, consideration, legality of object and consideration, void agreements. Performance of contracts, discharge of contract, breach of contract remedies for breach of contract. Specific contracts viz, contingent contracts, quasi-contracts, contracts of indemnity and guarantee, contract of bailment, contract of agency.

2. The Indian Partnership Act 1932

General Principles- Meaning of partnership, essential features of partnership, types of partners. Formation of Partnership-Partnership deed, registration of partnership firms, position of a minor partner, duration partnership firm, rights of outgoing partner. Rights and Liabilities of Partners- Relations of partner with each other, rights of partner, duties of partners, relation of partner with third parties.

3. The Sale of Goods Act, 1930

Introduction - Definition and essentials of a contract of sale Goods and their classification. Meaning of price Conditions and Warranties Performance of a contract of sale of goods unpaid seller and his rights Remedies for breach of contract

4. The Companies Act, 2013

Company- Meaning and definition, characteristics of joint stock companies, types of companies difference between private and public limited companies. **Promotion and incorporation of companies**-Promotion, Incorporation of companies, promoters: meaning and importance, process of incorporation: preparation contents and importance of various documents to be filed, Memorandum of Association, Articles of Association, certificate of commencement of business. **Memorandum of Association and Articles of Association**- Contents and alteration, **Capital of the company**- Share and its types, Debentures and its types, difference between shares and debentures, share certificate, share warrant and stock, **Prospects**- Meaning and definition, contents and registration of prospectus, issue and allotment of shares, **Management of Companies**- Board of Directors: Appointment, Qualifications and disqualification, powers, duties and position of directors, removals of directors, **General Principles of Meetings**- Statutory Meeting, Annual General Meetings, Extra-ordinary General Meetings, Board Meetings, **Winding-up of Companies**- Meaning and types of winding-up, provisions relating to winding-up.

5. The Negotiable Instruments Act, 1881

General Principles- Meaning of negotiable instrument, types of negotiable instruments, ambiguous instruments, maturity of negotiable instrument, payments of negotiable instruments, dishonor of negotiable instruments, provisions of sections 138 to 145.

6. The Consumer Protection Act, 1986

General Principles- Meaning & definition of various important terms. Rights of Consumers. Nature & scope of remedies available to consumers.

7. An overview of following Laws:

The Information Technology Act, 2000, Foreign Exchange Management Act, 1999, The Competition Act, 2002, Limited Liability Partnership Act, 2008, the Competition Act, 2002 the SEBI Act, 1992, Laws relating to Intellectual Property- Provisions relating to patent, copyright and trademarks and Environment Protection Laws

Suggested Books:

- Mercantile Law by S.S. Gulshan
- Elements of Mercantile Law by N.D. Kapoor
- Business Legislation for Management by M.C. Kuchhal
- Business Law by S.K. Agrawal
- *Legal Aspects of Business by Akhileshwar Pathak*

CORE- FT-105 - Human Resource Management

Course Outcome: Student will…….

CO1: Become better leaders by enhancing their effectiveness in managing human resources.
CO2: Understand the basic principles of strategic human resource management—how an organization acquires, rewards, motivates, uses, and generally manages its people effectively.
CO3: Comprehend practices and techniques for evaluating performance, structuring teams, coaching and mentoring people, and performing the wide range of other people related duties of a manager in today's increasingly complex workplace.

Course Contents:

I: Human Resource Management:
Relevance and spectrum, concept and evolution, Organization of HR Department, Role, Functions of HRM, HR Policies. Emerging dimensions in HRM.

II: Acquisition of Human Resource:
Human Resource Planning- Process and Importance of HRP, Quantitative and Qualitative dimensions; job analysis – job description and job specification; Concept and sources; recruitment – selection – Concept and process; test and interview; placement induction, Turnover, Retirement, layoff, retrenchment and discharge, VRS.

III: Training and Development:
Concept and importance; identifying training and development needs; designing training programmes; role specific and competency based training; training process outsourcing; management development systems.

IV: Performance Appraisal System*:*
Nature and objectives; techniques of performance appraisal; potential appraisal and employee counseling; job changes - transfers and promotions.

V: Compensation:
Concept, policies and administration; job evaluation; methods of wage payments and incentive plans; fringe benefits; performance linked compensation. Maintenance: employee health and safety; employee welfare; social security; grievance handling and redressal.

VI: Career planning and succession planning.
Concept, need and process of Career planning. Difference between Career planning and succession planning. Concept, process and benefits of both types of planning.

VII: Separation : Retirement, Resignation, Lay off, Retrenchment, Discharge and Dismissal.

Suggested Books:

1. Human Resource Management Principles and Practice, P.G. Aquinas, ISBN : 8125918097.
2. Personnel Management, ArunMonappa , MirzaSaiyadain, ISBN : 0074622643.
3. Human Resource Management , V S P Rao, ISBN : 8174464484.
4. Human Resource Management, Gary Dessler,ISBN : 8131754269.
5. Emotional Intelligence: Why It Can Matter More Than IQ by Daniel Goleman

CORE- FT – 114 Soft Skills for Managers

Course Outcome: Student will…….

CO1: Learn various aspects of soft skills for good personality. Meaning of a personality, aspects of personality, communication for individuals and business are the areas covered in this course.
CO3: Understand the importance of soft skills in personal as well as professional life and will help students become effective communicators and develop good interpersonal skills.

Course contents:

1: Introduction to Communication-
Meaning, definitions, models, functions, Objectives of effective communication, Communication Process, Dimensions of communication, Components of Effective Communication - Conviction, confidence & enthusiasm, Barriers to effective communication.

2: Verbal Communication –
Channels of communication: formal, informal, Public speaking, making effective presentations- 4 step method for presentation, Listening (story listening, narrating and writing).

3:Interviews -
Preparing for interviews, Formal and informal interviews- ambience and polemics – interviewing in different settings and for different purposes e.g. eliciting and giving information, recruiting, performance appraisal.

4: Written communication –
Differences between spoken and written communication – features of effective writing such as clarity brevity, appropriate tone clarity, balance etc. Letter writing – business letters – pro-forma culture – format – style – effectiveness, promptness – Analysis of sample letters collected from industry – email, fax. Business and Technical report writing,- types of reports – progress reports, routine reports – Annual reports – format – Analysis of sample reports from industry – Synopsis and thesis writing e-mail and mobile phone etiquettes

5: Personality & Interpersonal communication:-
Meaning, definitions, aspects, Types of personalities, having an effective personality, Johari Window, Transactional analysis, Self-Management

6: Skills for Managerial competence –
Leadership– concepts and implication, Team Building – concepts and implications.

7: Grooming through Corporate Training-
Business Etiquette, Time Management, Conflict Management.

Note: Classroom activities and exercises would be conducted and assignments would be given as per the session requirements. The assignments would be graded as a part of the internal assessment.

Suggested Books:

1. Business Communication Today by Courtland L. Bovee, John V. Thill, Barbara E. Schatzman, Hardcover: 730 pages, Publisher: Prentice Hall
2. Communicating for Managerial Effectiveness by Phillip G. Clampitt, Paperback: 304 pages, Publisher: SAGE Publications
3. Essentials of Business Communication with Student CD-ROM by Mary Ellen Guffey, Paperback: 511 pages, Publisher: South-Western Educational

Elective-1-FT- 102C-Business Accounting I

Course Outcome: Student will…….

CO1: Acquaint concepts of accounting and help them to acquire the ability to develop and use the accounting and system as an aid to decision making.
CO2: Develop an insight about the meaning of basic accounting terms related to accounting, business management and finance.
CO3: Identify how accounting serves as a basis for careers, and the tasks associated with various accounting occupations.
CO4: Master the ability to apply the accounting cycle for different types of businesses.

Course Contents:

1. Fundamentals of Financial Accounting: Meaning and definition of accounting, Need and functions of accounting, users of accounting information, importance and limitations of accounting, Relationship of accounting with other disciplines, Accounting Principles- Concepts and Conventions, An introduction to Indian Accounting Standards.

2. Double Entry System of Accounting I: Concept and definition, Process of Accounting, types of accounts, various stages of DES accounting: Journal, Ledger, Introduction of Subsidiary Books & types of Cash Book**.**Trial Balance.

3. Double Entry System of Accounting II: Preparation of Final Accounts, Adjustments in Final A/cs., elementary exposure to company Balance Sheet and Annual Reports**,** Preparation of Final a/cs. With adjustments, Concepts of Depreciation**,** Numerical Problems.

4. An Overview of Financial Statement Analysis: Objectives, methods and Importance. Comparative financial statements, Common size financial statements and Trend Analysis.

5. Ratio Analysis: Significance, Calculation and Classification of Ratios: Liquidity, Activity, Leverage and Profitability Ratios, Practical Questions.

6. Cash Flow Analysis: Meaning, Importance and Relevance of Cash Flow Statement, Cash Flow analysis: Computations of cash from operations and other activities and Practical Questions.

7. Fund Flow Analysis: Importance, Limitations, and Relevance of Fund Flow Statement, Difference between fund flow and cash flow analysis, Fund Flow analysis: Preparation of schedule of changes in working capital and its utility, calculation of funds from operation and Practical Questions.

Suggested Books

1. Financial A/c. for Management by Ambrish Gupta (Pearson Education)
2. Accounting for Managers by M.E. Tukaram Rao (New Age).
3. Management Accounting by S. P. Gupta (Sahitya Bhawan, New Delhi).
4. Management Accounting by M. N. Arora.

Elective 2:FT-116-PRODUCTION& OPERATIONS MANAGEMENT

Course Outcome: Student will…….

CO1: Understand the basic method of production management techniques and eventually to develop skills in problem-solving and decision-making.
CO2: Acquainted with the basic aspects of Production Management. The course attempts to discuss various important planning, organizing and controlling aspects of Operations Management.
CO3: Reinforce the concepts of Production Management through various operational aspects of Production Management. Various important Production Management techniques will be covered with different problem-solving methodologies.

COURSE CONTENTS

1. **Production /Operation Management-** Definition, Classification of Production Systems, Productivity defined, Manufacturing vs. service organization

2. **Facilities layout Planning -** types, Assembly Line Balancing, Closeness Ratings.

3. **Facilities Location-** location Decision Process, Factor Affection Location Decision, Location break Even Analysis, Location Options.

4. **Inventory Models -** Function, Relevant Cost, Behavior of Cost in Inventory, ROP, optimum Order Quantity.

5. **Capacity Planning -** Short Term & Long Term Consideration, Evaluating Capacity Alternatives, Cost Volume Analysis, Decision Tree/Decision Matrix.

6. **Scheduling and Sequencing -** Scheduling in high volume system & job shops, Gantt load chart, Sequencing of jobs using priority rules and two work centers.

7. **Maintenance -** Objectives, Preventives Vs. Break down Maintenance, Bath Tub Curve.

SUGGESTED BOOKS

1. Production & Operation Management: - S.N.Chary
2. Operation Management: -Joseph G Monks
3. Production & Operation Management: -S.A.Chunawala& Patel
4. Production & Operation Management: -Buffa

FT-117: Lab: Data Visualization

Course Outcome: Student will…….

CO1: be able to presentdata in table, pictorial or graphical format. Such visual presentation will help in providing better insight in decision making.
CO2: Develop the skills needed for designing of data visuals with different visual encodings, create different type of charts and maps in Excel / Tableau.

Evaluation - The faculty member will award internal marks out of 40 based on three assessments of 20 marks each of which best two will be considered. The end semester examination will be worth 60 marks of Lab viva/ practical.

Lab sessions will be based on following topics:

1. EXCEL BASICS: Spreadsheet Basics, Data Formatting in Excel like colors, fonts, Bullets etc, Basic Sorting and Filtering, Creating, Editing, saving and Printing spreadsheets. Sorting Data by values, colors , etc. Filtering by numbers, text, values logical functions, colors, Using Filters to Sort Data, Using Auto filter, Creating a custom AutoFilter Advance Filtering Options.
2. BASIC FORMULAE: SUM,AVERAGE,COUNT,MAX,MIN etc Text Function, Logical Functions, Date and Time Functions, Information Function, Database Functions, Math and Trigonometry Functions, Statistical Functions, Relative cell reference, Absolute cell reference
3. FUNDAMENTAL DATA ANALYSIS : Charts, Creating a chart, Formatting a chart, Adding Labels, Changing the chart type, Data source, Sorting Data by Color, Creating a custom format, Create a custom number format, Conditional Formatting, Creating Conditional Formatting, Editing Conditional Formatting, Adding Conditional Formatting, Deleting Conditional Formatting from the selected range.
4. POWERFUL DATA ANALYSIS – PivotTable, Create a PivotTable to analyze external data, Connect to a new external data source, Using the Field List option, PivotTables based on Multiple Tables, Adding Pivot table Report Fields, Refreshing Pivot table Reports, Changing the summary functions, Creating report filter page. What-IF Analysis, Goal Seek, Data Tables, Scenario Manager, Working with Macros, Display the developer Tab, Changing Macro security Settings, Recording and running a Macro.
5. TABLEAU: Choosing appropriate visual encodings – ordering of item, number of distinct value, structure of visualisation, positioning - placement and proximity, graphs and layouts, colors, size, text and typographic, shapes , lines.
6. User defined fields: Using predefined fields, calculating percentages, applying if-then logic, applying logical functions, showing totals and percentages, discretizing data, manipulating text.
7. Customization: Adding title and caption, font size and colours, adding various marks, adding reference lines, using presentation mode, adding annotation, adding drop-down selectors, search box selectors, slider selectors, creating dashboards, creating animated visualizations .

Sample Exercise Microsoft Excel-

PRACTICAL EXERCISE 1

Use the worksheet given below to answer the questions that follow:

Employee Details						
Emp No	**Name**	**Category**	**Basic Pay**	**Allowances**	**Gross Pay**	**Tax Deductions**
E8	Cornell	Assistant	4,600	300		
E9	John	Assistant	3,500	450		
E2	Francis	Supervisor	6,508	500		
E3	Edwin	Management	8,006	1,801		
E10	Carl	Assistant	4,200	100		
E4	Bernard	Management	7,917	1,775		
E5	George	Supervisor	5,500	850		
E1	Lewis	Management	8,291	2,500		
E6	Albert	Supervisor	5,700	760		
E7	Edward	Supervisor	7,151	1,545		
Tax Rate						
12%						

Questions

(i). Make all the column titles bold, and size 12. Center the title , across columns A1:H1 and make it size 16, and Bold.
(ii). Calculate the gross pay in cell F4.
(iii). Calculate the amount of tax deducted from each employee, given that the tax rate is 12% of the gross pay. Tax rate is found in cell A16 of the worksheet.
(iv). Format the text orientation in the range A4:G4 to 0 degrees.
(v). Adjust the column width such that all the headings are visible.
(vi). In cell H4, enter the title Net Pay and calculate the Net pay for all employees.
(vii). Format the range G4:H13 to zero (0) decimal places.
(viii). Format the title Net Pay to match the other titles.
(ix). Set the range A1 to H16 as Print Area.
(x). Using the Names in column B, Basic Pay in column D, and Allowances in column E, insert a Clustered Column Pie Chart on the same sheet to show comparison of the salaries for the employees. The Chart Title should be Employee Details, the Y-axis should be Employee Names and the X-axis should be Thousands (Kshs).
(xi). Move the chart so that the top left corner is on cell A18.
(xii). Change the Chart Title to Employees' Salary Details.
(xiii). Change the Chart Type to Clustered bar with a 3-D visual effect.
(xiv). Increase the Chart Title Font size to 14.
(xv). Change the text direction for the title of the X-axis to 0 degrees, and for the Y-axis to -90 degrees.
(xvi). Resize the chart such that the bottom left corner is on cell A55, while the bottom right corner is on cell I55 so that all the details are clearly visible.
(xvii). Save the worksheet as Salary Details (Reviewed Copy).

PRACTICAL EXERCISE 2

You are in charge of a young and growing business. You have identified the various factors (sources of revenue and expenses) that influence the business as shown in the table below. Use the figures provided and the layout to create a financial projection model for the business for the next six years. The parameters are given on Sheet 2.

SHEET 1:

INCOME AND EXPENSES PROJECTIONS						
	1999	**2000**	**2001**	**2002**	**2003**	**2004**
Sales	10,000					
% Growth over the previous year		20%	30%	20%	10%	10%
Materials						
Wages						
Other benefits						
Others						
Total Cost of Goods Sold						
Salary: Office						
Salary: Sales						
Other Benefits						
Advertising & Promotions						
Depreciation						
Miscellaneous						
Total General & Admin. Expenses						
Total Operating Costs						
Interest on Loans						
Pre-tax Income						
Tax						
Profit						

SHEET 2:

Parameters		**Description**
Sales	10,000	Starts at 10,000 and grows by a percentage
Materials	17%	17% of Sales
Wages	14%	14% of Sales
Other benefits	2.1%	2.1% of Sales
Others	8%	Starts at 100, then grows by 8% yearly
Salary: Office	10%	Starts at 1,000, then grows by 10% annually
Salary: Sales	8%	8% of Sales
Other Benefits	17%	17% of Total Salary
Advertising & Promotions	2.5%	2.5% of Sales
Depreciation	20	Fixed at 20 every year
Miscellaneous	10	Starts at 10 and grows by a fixed amount of 10 annually
Interest on Loans	10	A fixed amount of 10 each year
Tax	52%	52% of Pre-tax Income

Exercise Instructions.

(i). Open the worksheet named **Income and Expenses Projections.xls**.
(ii). Rename Sheet1 as **Projections** while Sheet 2 should now be **Parameters**.
(iii). Calculate the Sales for the year 2000 using the percentage given in cell **C5**.
(iv). Copy the formula across to the Year 2004.

(v). Calculate the different items that make up the Total Operating Costs using the parameters in the Parameters sheet.
(*You should enter the formula for the Year 1999 and copy down to the year 2004. Use Absolute Referencing effectively*).
Hint: *Total Cost of Goods Sold = Materials + Wages + Other Benefits + Others*

(vi). Calculate the Total Operating Costs:

Total Cost of Goods Sold + Total General and Administrative Expenses.

(vii). Calculate the Interest on Loans:
(viii). Calculate the Pre-tax Income.

Sales – Total Operating Cost – Interest on Loans.

(ix). Calculate the Tax.
(x). Calculate the Profit:

Pre-tax Income - Tax.

(xi). Format the worksheet as follows:
Make all the Totals bold, zero decimal places, comma, center the heading between A1:G1 and make it size 16, bold.
(xii). Save the file as **C:\Exams\Creative.xls**

Sample Exercise Tableau

1. **Sales Representative and Calls Performance**
a) Make a visualization showing the total number of calls, separated by incoming and outgoing, for each sales representative (rep id).
b) Make a visualization showing which sales reps have the largest number of outgoing calls.
c) Make a visualization showing which sales reps handled the most calls (incoming and outgoing) at the time block starting at 2pm.
Make a dash board (DASHBOARD A) containing all three of these visualizations.

2**. Company Sales Branches Comparison**
Your CEO wants to have one chart that allows her to easily comprehend how many calls each branch of the company has, broken out by the type of call (call purpose). You are to make four visualizations to put in a dashboard (DASHBOARD B) to show your manager (one of which you'll end up showing the CEO). Describe which of the four you think is best and why and include it as an annotation on that visualization.
a) One focused on call purpose (Bar Chart, 3 groups: complaint, product support, sales support)
b) One organized by Branch (Bar Chart, 2 groups: north, south)
c) Call purpose Stacked Bar Chart (combining two branches into same stacked bar)
d) Branch focused Stacked Bar Chart (combining three call purposes into same stacked bar)

3.**Call Time and Sales Rep Filtering**
Display the number of calls each sales rep makes. Build a quick filter that controls which of these results are displayed based on the value of SUM(During Call Wait Time). Make the filter 10 (minutes) wide (you can set exact values by clicking on numbers). Now drag the filter (via mouse down in middle of bar) through the range of waiting minute values. Create a dashboard (DASHBOARD D) to record all the times that you can find where there are ONLY TWO sales reps matching the filter condition and shown in the visualization (e.g. Cam and Xander both have 24 calls when During Call Wait Time minutes is between 65 and 75).

FT-201: PRINCIPLES OF MARKETING MANAGEMENT

Course Outcome: Student will…….

CO1: Have an exposure to marketing concepts, tools & techniques and help them to develop abilities and skills required for the performance of marketing functions.
CO2: Be introduced the aspects of marketing including strategic marketing planning, marketing research, product planning and development, promotion planning and pricing.
CO3: Understand of the theories and practical application of the marketing mix variables.

COURSE CONTENTS

1. **Marketing Concepts:** Customer Value and Satisfaction, Customer Delight, Orientation of Marketing Concepts: Production Concept, Product Concept, Selling Concept, Marketing Concept and Societal Marketing Concept, Value Chain.
2. **Understanding the Marketing Environment:** Scanning the Environment, Micro-Environment, Macro-Environment.
3. **Marketing Segmentation, Targeting and Positioning:** Market Segmentation, Bases of Market Segmentation, Requirements of Effective Segmentation, Evaluating the Market Segments, Market Targeting: Undifferentiated Marketing, Single Segment and Multi-Segment Structures, Concept of Positioning.
4. **Consumer Behavior:** Model of Consumer Behavior, Factors Influencing Buyer Behavior, Decision-Making Process in Buying.
5. **Marketing Research**: Meaning and Process.
6. **Elements of Marketing Mix:**
   - **Product Decision**: Objectives, Core, Tangible and Augmented Products, Product Classification, Product Mix, Product Life Cycle and Strategies, New Product Development Process, Introduction and Factors Contributing to the Growth of Packaging, Introduction of Labeling.
   - **Pricing Decisions**: Factors affecting Price, Pricing Methods, Price adaptation Strategies.
   - **Distribution Decisions**: Importance and Functions of Distribution Channels, Considerations in Distribution Channel Decision, Distribution Channel Members, Intensity of Distribution, Channel Conflict and Channel Management.
   - **Promotion Decisions:** A view of Communication Process, Developing Effective Communication, Promotion Mix Elements.
7. **Emerging Trends in Marketing**: An introduction to Internet Marketing, Multilevel Marketing, CRM, Green Marketing, Social Media Marketing, Rural Marketing, Experiential Marketing and Event Marketing.

SUGGESTED BOOKS

- Philip Kotler, Principles of Marketing Management, New Delhi, Prentice Hall of India.
- Ramaswamy and Namakumari, “Marketing Management”, Macmillan India.
- Rajan Saxena,”Marketing Management”, Tata McGraw Hill.

FT-202A: INTERPERSONAL AND ORGANISATION BEHAVIOUR

Course Outcome: Student will…….

CO1: Gain the intricacies of individual behavior in order to function effectively and efficiently in the organization.
CO2: Learn potential sources of conflicts which will make their careers interesting and enjoyable.
CO3: Revitalize organizational theory and develop a better conceptualization of organizational life.

COURSE CONTENTS

1. **Introduction to Organization Behavior:** Definition, Model, Variables. Foundation of Individual Behavior: Biographical Characteristics, Ability, Personality.

2. **Perception:** Definition, Factors affecting perception, process, social perception, perceptual barriers. Learning: Meaning, Definition, Types, Theories of learning, Reinforcement, Techniques of Reinforcement, Punishment.

3. **Values & Attitudes:** (i) Value importance, source types (ii) Attitudes- source, types, and theory, Motivation: Definition, Process, Process Theories, Content Theories, Motivation Applied- MBO, OB Mod, Goal Setting & Job Design

4. **Job Satisfaction**: Meaning, Factor Affecting JS & Outcomes of JS, Job Stress: Meaning, Causes, Effect and Coping Strategies.

5. **Group Dynamics:** Definition, Types, Reason for joining groups, group Development, Group Structure. Power & Policies: Definitions, Social Influence, and Tactics of SI. Individual Power, Bases Of Power.

6. **Interactive Behavior & conflict:** Intra- Individual conflict- Conflict due to frustration, Goal conflict, Role conflict, Interpersonal conflict- transactional Analysis, Johari Window, Inter-group Behavior, Managing conflict.

7. **Organization Culture:** definition, Type, Creating& Sustaining, Organization Change & Development: Reason for Change, OD Technique.

SUGGESTED BOOKS

1. Organization Behavior-Stephen Robbins
2. Organization Behavior-Kamran Sultan
3. Organization Behavior-Fred Luthans
4. Management of Organization Behavior-Paul Hersey & K.H. Blanchard
5. Organization Behavior-Nelson & Quick

FT-203B: BUSINESS ECONOMICS (MACRO BASED)

Course Outcome: Student will…….

CO1: Identify economic concepts and theories related to the behavior of economic agents, markets, industry and firm structures, legal institutions, social norms, and government policies.
C02: Able to integrate theoretical knowledge with quantitative and qualitative evidence in order to explain past economic events and to formulate predictions on future ones.

COURSE CONTENTS

1. **Introduction -** Macro Economic analysis, Micro and Macro Economics, goals of macro economic policies, stock and flow variables, exogenous and endogenous variables, and EX- ANTE and EX-POST concepts.

2. **Measurement of Macro Economic Aggregates -** National Income and its variants, Real & Nominal GDP, Measures of national products and methods used, National income and Economic welfare, National income in India, its composition, trend & structural analysis, National income determination models under open and closed economy Aggregate demand and supply, Calculation of multiplier, simple investment multiplier, government expenditure, tax, balanced budget and foreign trade multiplier, Super multiplier, limitations of multiplier.

3. **Consumption & Savings function -** Keynes' psychological law of consumption, Post Keynesian income consumption hypothesis, Trends of consumption and savings in Indian economy. Investment, its types, factors affecting investments, MEC and factors affecting MEC, Accelerator principle. Investment trends in Indian economy, measures to stimulate public and private sector investment in India.

4. **Money and Inflation -** Money and its role, measures of demand and supply of money, money multiplier, interest rate and IS- LM framework, Types of inflation, Inflationary gap, causes and consequences of inflation, Philips curve, Reflation, Deflation; trends and measurements of inflation in Indian Economy.

5. **Monetary and Fiscal Policies -** Objectives and Instruments of Monetary and Fiscal Policies, Analysis of the policies in Indian Economy.

6. **Basic Macro Economic concepts for Open Economy -** Balance of Payments, Current and Capital account, Official reserve account, Balance in BOP, Analysis of India's BOP Position.

7. **Business Cycles -** Concept and phases of Business cycles, Monetary and Non Monetary theories of business cycles.

SUGGESTED BOOKS

1. G. Mankiw- Macro Economics
2. Dornbusch & Fischer- Macro Economics, 9th Edition
3. Fred Gothiel – Principals Of Macro Economics
4. Edward Shapiro – Macro Economic Analysis
5. Sunil Bhaduri – Macro Economics
6. M.C. Vaish – Macro Economics
7. M.L. Seth- Monentry Economics

FT-205: FINANCIAL MANAGEMENT

Course Outcome: Student will…….

CO1: Enhance the understanding of the fundamental concept of managing financial aspect of organizations.
CO2: Gain systematic, efficient and actual knowledge of financial management that can be applied in practice.
CO3: Learn making financial decisions and resolving financial problems.

COURSE CONTENTS

1. **Financial Management: An Introduction -** Concept and Nature of Financial Management, Goals of Financial management, Scope of Finance. Organization of Finance Function, Relationship of Finance Function with other disciplines, Role and Functions of Finance Manager. Concept and Utility of Time Value of Money, Future and Present Value of a Single Cash Flow, Multiple Flows and Annuity. Compounding and Discounting Techniques, Numerical Problems.
2. **The Management of Working Capital -** Introduction, Concept and Classification of Working Capital, Working Capital Financing, Nature & Concepts, Management of Receivables, Cash and Inventory. Planning for Working Capital Management, Determinants of Working Capital, Estimation and Calculation of Working Capital, Numerical Problems, and Composition of ST Financing.
3. **Long Term Sources of Finance and Leverage Analysis -** Concept, Debt and Equity, Equity and Preference Shares, Debentures, Term Loans, etc. Lease. Concept of Leverage, Operating Leverage, Financial Leverage, and Combined Leverage. Importance of Leverages, Relationship of Leverages with Capital Structure, EBIT-EPS analysis, Indifference point. Numerical problems (Leverage Ratio).
4. **The Cost of Capital -** Introduction, Concept, Definition & Importance, Assumptions, Cost of Debt, Cost of Preference shares, Cost of Equity, Weighted Average Cost of Capital. Numerical Problems.
5. **Capital Structure and Valuation**: Introduction, Concept & Definitions, Capital Structure Theories- assumptions, Valuation of Firms- NI Approach & NOI Approach, Optimum Capital Structure, MM Approach.
6. **Capital Budgeting**: Introduction, Importance, Difficulties and kinds of CB Decisions, Basic Data Requirements- Identifying relevant cash flows, Basic Principles in estimating cost and benefits of investments. Appraisal Criteria's; DCF and Non DCF Methods for Evaluating Projects, Evaluating Mutually Exclusive and Independent Proposals. Evaluating projects with unequal life and capital ratios.
7. **Dividend Decision -** Dividend & valuation- an introduction, Irrelevance of Dividends- MM Hypothesis, Relevance of Dividends- Walter's Model & Gordon's Model, Numerical Problems, factors determining Dividend Policy, Cash Dividend Vs. Stock Dividend, Legal, Procedural & Tax Aspects.

SUGGESTED BOOKS

1. Financial Management Text & Problems by M Y Khan & P K Jain
2. Financial Management, I M Pandey
3. Fundamental of Financial; James C Van Horne & John M Wachowicz, Jr
4. Financial Management by A K Dhagat, Dreamtech Press

FT-206B: QUANTITATIVE TECHNIQUES FOR BUSINESS

Course Outcome: Student will…….

CO1: develop a formal quantitative approach to problem solving and an intuition about situations where such an approach is appropriate, to introduce some widely-used mathematical models.
CO2: comprehend quantative technique for business models which will provide a tool that the students can use to solve management problems.

COURSE CONTENTS

1. **Meaning of Operations Research -** Characteristics of OR, Scope of Operations Research in management, Methodology of OR, Advantages and Limitations of OR.

2. **Introduction to Linear Programming -** Meaning of linear programming, Mathematical formulation of linear programming problems, Assumptions Solution of linear programming problems by graphical methods, Exercises.

3. **Simplex Method for Linear Programming Problems -** Maximization Problems, Exercises. Minimization Problem (Big–M Method), Exercises. Problem of mixed constraints, Infeasibility, unbounded ness, degeneracy, Duality in linear programming problems.

4. **Transportation Model –** Introduction, Mathematical Formulation of Transportation problems, Initial basic feasible solution using N-W corner method, Row Minima Method, Column Minima Method. Matrix, Minima Method, Vogel's Approximation method (VAM), Exercises. Optimization (Minimization and Maximization) of Transportation Problems using Stepping Stone Method and MODI Method, Exercises. Unbalanced problem and degeneracy in transportation problems, Transportation problem – Maximization type.

5. **Assignment Problem:** Introduction**,** Solution of Assignment Problem, Maximization and Minimization case in Assignment problem using Hungarian Method, Unbalanced Assignment Problem.

6. **Network Scheduling Techniques: PERT & CPM –** Introduction, Managerial applications, CPM/PERT Network Components, Rules of Network Construction, Critical Path Analysis, Critical Path. **Programme Evaluation and Review Technique (PERT) -** Three time Estimates for PERT, Estimate of Probability, Distinction between PERT and CPM.

7. **Queuing Theory –** Introduction, Scope in management and decision-making, Characteristics of Queuing Models, Deterministic models, Probabilistic Models: M/M/I & M/M/C.

SUGGESTED BOOKS

1. Quantitative Techniques by N.D. Vohra, Tata McGraw Hill
2. Quantitative Analysis to Management by Richard I. Levin, David S. Rubin, Pretence Hall of India
3. Operations Research by Prem Kumar Gupta, D.S. Heera
4. Operations Research by Hamdy. H. Taha
5. Operations Research by Hira & Gupta, S Chand & Company
6. Quantitative Techniques for Managerial Decision Making by Shrivastav, Shenoy & Sharma, Wiley Eastern Limited.

FT-210A: RESEARCH METHODOLOGY

Course Outcome: Student will…….

CO1: Develop basic concept and methods for conducting Business research.
CO2: Identify the overall process of designing a research study from its inception to its report which includes plan; review of the literature, data collection; analysis of data; interpretation of data and reporting of findings.
.

COURSE CONTENTS

1. **Research Methodology Introduction:**
   Meaning and purpose of research; objective of research; types of the research; process of research; research methods v/s methodology; research proposal; limitation of research; research terminology- concepts, variables, constructs, operational definitions, propositions & hypothesis, theory, models etc.
2. **Research design:**
   Selection and definition of problem, survey of literature, different research designs, feature of good research design
3. **Sampling Design:**
   Concept of sampling; Sampling terminology; Objective and principles of sampling, Types of sampling, Sampling and non-sampling errors.
4. **Data Measurement and Collection**
   Data type, Measurement scale, Attitude measurement scale, Questionnaire design, Validity and reliability of a research instrument; Method of collecting data and their advantages and disadvantages.
5. **Data Analysis I:** Introduction to SPSS (Statistical Package for the Social Sciences) application; Data Management, Preparation and descriptive analytics using spreadsheet and SPSS. Visualization, exploration and extracting data summary statistics and their interpretation.
6. **Data Analysis II:** Hypothesis testing: Review of Concept, methodology, types of errors, important parametric and non parametric tests.
7. **Report Writing And Presentation:**
   Significance of report writing, Steps in report writing, Layout of report, Precaution in writing research reports, Writing bibliography.

Books

1. Donald r Cooper and Pamela S Scheindler, Business Research Methods, Tata McGraw Hills
2. K N Krishnaswami, A L Sivakumar and M Mathirajan, Management Research Methodology, Pearson Education.
3. Darren George and Paul Mallery, SPSS for Windows, Pearson Education.
4. Hair etc, Multivariate Data Analysis, Pearson Education.
5. Panneerselvam,R., Research Methodology, Prentice Hall of India Pvt. Ltd.
6. Kothari, C.R., Research Methodology - Methods and Technique, New Age International Publishers

Elective 2- FT-204C: IT FOR BUSINESS

Course Outcome: Student will…….

CO1: Understand Basics of computer and IT and there use in business.
CO2: Prepare students to integrate computers and computing techniques within their business degree programs,
CO3: Use of system software and application software and the role of computers in database management systems and management information systems.

UNIT 1: Introduction to Information Technology:

Introduction to Information Technology, computer hardware, software and its languages. Internet and Networking types and devices, IT architecture, Types of browsers and search engines.

UNIT 2: IT for Business Organization:

Significance of IT, Importance of MIS, use of different types of MIS software's (ERP, SAP etc). Data base management and its Role.

UNIT 3: E-Business Basics:

Fundamentals of E-Business, Introduction to e- commerce and its types, E-business v/s E-commerce, E-business framework, E- business applications, business models.

UNIT 4: **Drivers of E-business:**

M-commerce, Cloud Computing, Big Data and Analytics, Social Media, Internet of Things (IOT).

UNIT 5: E-Business and EDI:

EDI applications in Business, EDI: legal, security and Standardization, EDI Framework, EDI Software and its Types, Value added Networks, Digital Business Support Services, e-CRM, e-SCM, e-Banking, M-Banking.

UNIT 6: Digital Marketing and Digital Advertising:

Definition ,Scope, Digital Vs Traditional Marketing , Types of Digital Marketing(SEO, SEM, Social Media Marketing, Affiliate Marketing etc), Paid and sponsored advertising models (Search Engine Models), Social Media Models, e-Commerce Platforms etc), Search Engine Analytics.

UNIT 7: Digital Transactions:

Concept of e-payment, types of e-payments, token based payment, smart card,visa card, Dr/Cr card payment system. Security Threats and Cyber Crimes, IT act 2000 and onwards, Cryptography.

Suggested Books:

1. E-Commerce by Kenneth C. Laudon,Carol Guercio Traver, Pearson Education
2. E-business and E-commerce Management by Dave Chaffey, Pearson Education.
3. Fundamentals of Information Technology (Text Book), Alexis and Mathews Leon.
4. Internet Marketing by Judy Strauss and Raymond Frost, Pearson Education Publications

FT-215 BUSINESS ACCOUNTING-II

Course Ooutcome : Student will…….

CO1: Acquaint concepts of Cost accounting and Management Accounting and acquire the ability to develop and use the accounting as an aid to decision making.
CO2: Develop an insight about cost sheet, marginal costing and absorption costing.
CO3: Master the ability to apply concept of BEP and budgeting.

Course Contents:

1. INTRODUCTION TO COST & MANAGEMENT ACCOUNTING:

Concept of Cost, Classification of Cost, Elements of Cost, Need for Cost accounting, Advantages and Limitations of Cost Accounting, Installation of Cost Accounting system, Cost Reduction, Cost Control and Cost Management. Introduction to Management Accounting, Need, Importance and Limitations of Management Accounting, Difference between Management, Cost & Financial Accounting.

2. PREPARATION OF COST SHEET:

Classification of Cost and Elements of Cost, Cost Centre and Cost Unit, Preparation of Cost Sheet and Estimated Cost Sheet.

3. INTRODUCTION TO MARGINAL COSTING & ABSORPTION COSTING:

Concept of Marginal Costing & Absorption Costing, Distinction between Marginal Costing & Absorption Costing, Income determination between Marginal Costing & Absorption Costing, Difference in Profit under Marginal Costing & Absorption Costing, Practical Questions.

4. CVP & BEP ANALYSIS:

Assumptions underlying Break-even Analysis, Contribution, Marginal Cost equation, Margin of Safety, Profit Volume Ratio, Methods of Break-even Analysis, Practical Questions.

5. BUDGETARY CONTROL:

Meaning of Budget and Budgetory Control, Objectives of Budgetory Control, Essentials of Effective Budgeting, Types of Budgets: Functional Budgets, Master Budget, Fixed and Flexible Budget, Preparation of Budgets and Practical Questions.

6. AN OVERVIEW OF STANDARD COSTING & VARIANCE ANALYSIS:

Meaning of Standard Cost and Standard Costing, Standard Costing Vs Budgetory Control, Preliminaries in establishing a System of Standard Costing, Variance analysis.

7. COST ANALYSIS FOR DECISION MAKING MAKE OR BUY DECISIONS:

Suggested Books

1. Financial A/c. for Management by Ambrish Gupta (Pearson Education)
2. Accounting for Managers by M.E. Tukaram Rao (New Age).
3. Management Accounting by S. P. Gupta (SahityaBhawan, New Delhi).
4. Cost Accounting- Principles & Practice by M.N.Arora (Vikas Publishing House,New Delhi)

References: Practical Costing by P.C.Tulsian
Practical Costing by Khanna, Pandey, Ahuja & Batra

FT-216: LAB:-RESEARCH TOOLS

Course Outcome: Student will…….

CO1 The Studenty will learn basic data analysis with statistical software.
CO2 Students will learn how to enter data, define variables, and perform variable manipulation and transformation.
CO3 Student will also learn how to use statistical software to analyze data.

Evaluation - The faculty member will award internal marks out of 40 based on three assessments of 20 marks each of which best two will be considered. The end semester examination will be worth 60 marks of Lab viva/ practical.

Course Contents:

Unit 1
Introduction to SPSS: New file creation,The SPSS Milieu,Toolbar,Menu bar,Creating a Data File, Variable Label, Variable Type, Value Labels,Missing Values.

Unit 2
Descriptive Statistics and Reliability Test

Unit 3
Paramatric Test T-Test ANOVA Factor and Clustor Analysis, Correlation and Multiple Regressions

Unit4
Non-paramatric Test-Chi square test, Mann-Whitney U test, Kruskal-wallis Test

Unit 5: Introduction to R**,** Stata**,** E review

References
1.SPSS for Researcher by S.L Gupta and Hitesh Gupta
2.IBM SPSS Tutorial
https://www.ibm.com/support/knowledgecenter/en/SSLVMB_23.0.0/statistics_spsstut_project_ddita-gentopic1.html

FT-301E: STRATEGIC MANAGEMENT (CORE)

Course Outcome: Student will…….

CO1: Comprehend integrative model of strategic management process that defines basic activities in strategic management.
CO2: Acquire the knowledge and abilities in formulating strategies and strategic plans.
CO3: Be able to analyze the competitive situation and strategic dilemma in dealing with dynamic global business environment in terms of rapidly changing market trends and technological advancement.
CO4: Evaluate challenges faced by managers in implementing and evaluating strategies based on the nature of business, industry, and cultural differences.

COURSE CONTENTS

Unit 1: Meaning, Need and Process of Strategic Management; Business Policy, Corporate Planning and Strategic Management; Single and Multiple SBU organizations; Strategic Decision– Making Processes – Rational–Analytical, Intuitive-Emotional, Political – Behavioral; Universality of Strategic Management; Strategists at Corporate Level and at SBU Level;Interpersonal, Informational and Decision Roles of a Manager.

Unit 2: Mission, Business Definition and Objectives; Need, Formulation and changes in these three; Hierarchy of objectives, Specificity of Mission and Objectives.

Unit 3 :SWOT Analysis: General, Industry and International Environmental Factors; Analysis of Environment, Diagnosis of Environment – factors influencing it; Environmental Threat and Opportunity Profile (ETOP); Internal Strengths and Weaknesses; Factors affecting these; Techniques of Internal Analysis; Diagnosis of Strengths and Weaknesses; Strategic Advantage Profile (SAP).

Unit 4: Strategy Alternatives: Grand Strategies and their sub strategies; Stability, Expansion, Retrenchment and Combination; Internal and External Alternatives; Related and Unrelated Alternatives, Horizontal and Vertical Alternatives; Active and Passive Alternatives; International Strategy Variations.

Unit 5:Strategy Choice Making: Narrowing the choices; Managerial Choice Factors, Choice Processes – Strategic Gap Analysis, ETOP-SAP Matching, BCG Product – Portfolio Matrix, G.E. Nine Cell Planning Grid; Contingency Strategies; Prescriptions for choice of Business Strategy; Choosing International Strategies.

Unit 6: Strategy Implementation: Implementation Process; Resource Allocation; Organizational Implementation; Plan and Policy Implementation; Leadership Implementation; Implementing Strategy in International Setting.

Unit 7: Strategy Evaluations and Control: Control and Evaluation Process; Motivation to Evaluate; Criteria for Evaluation; Measuring and Feedback; Evaluation and Corrective Action.

Suggested Books:-

1. Lawrence R. Jauch and William F. Glueck, "Business Policy and Strategic Management", McGraw Hill Book Co., New York.
2. "Strategic Management", Dreamtech Press, New Delhi
3. Strategic Management by VSP Rao and Harikrishna
4. Strategic Management by Upendra Kochru.
5. Daniel J. McCarthy, Robert J. Minichiello, and Joseph R. Curran, "Business Policy and Strategy" Richard D. Irwin, AITBS, New Delhi, 1988

ELECTIVE- 1
FT-302E: DECISION MAKING SKILLS

Course Outcome: Student will…….

CO1: Recognize personal barriers to problem solving and have identified a way to overcome these barriers
CO2: Understand the problem solving process and models including the IDEAL model
CO3: Understand team synergistic problem solving and decision making
CO4: Be aware of the individual and team behaviours when teams are problem solving as a group
CO5: Understand the role of creativity when faced with challenges that require new thinking. Use structured tools and techniques for solving problems including force field analysis
CO6: Understand the impact of your circle of influence when dealing with problems and the benefits of a proactive approach to both yourself and to others
CO7: Be able to apply a creative approach to generating options to help make the most appropriate decision.

COURSE CONTENTS

Unit 1: Introduction to Decision Making - Types of decisions, Art or Science
Unit 2: Theories to decision making, SWOC Analysis, Thompson's matrix. Porter's five forces model, Mc Kinsey 7S model. PEST model
Unit 3: Integrated Decision Making Process – Identifying the need, Means for deciding, possible options, trade offs
Unit 4: Types of Problem Solving Behavior.
Unit 5: Intervening variables in decision making.- Internal & External
Unit 6: Implementing Decisions – Communication and Acceptability of decisions, long term impact assessment
Unit 7: Group Decision making – Various stakeholders, collective bargaining process

Suggested Books:-

1. Agarwal, R. D. Organization and Management. Tata McGraw-Hill Education. (1982).
2. Harold Koontz; Cyril O'Donnell ,Principles of management; an analysis of managerial functions, New York, McGraw-Hill
3. J Frank Yates, Decision Management, University of Michigan Business School, Wiley , India Edition

ELECTIVE 2 – FT-314B DISSERTATION / INDUSTRIAL PROJECT

About Dissertation & it's Benefits

Dissertation is an opportunity offered to selected students where they conduct an indepth research on any topic of their choice. The Dissertation helps the students in number of ways:-

- **Nurtures academic insight** - The classroom teaching has certain limitations in terms of depth of subject that can be covered. Dissertation provides the student scope to explore the topic of choice in greater details. Exposure to an area of research undoubtedly also helps students explore career fields.
- **Enhances Observation skills** - The skill of research is not confined to the so-called academic research world. Research is an everyday practice of observation or data collection in order to make decisions or solve problems in an informed way. It happens in any organization, and the demand for research skills are increasing.
- **Enhances inquisitiveness** - The ability to ask the right questions about a situation, to decide on the information required understanding the issue, to gather the information and analyse it in a rigorous way, and to develop sound recommendations is a much-needed skill for leaders. Dissertation helps in equipping MBAs with such skill, which helps them in decision making.
- **Out of class learning** - The capacity of leaders to keep learning and to discover new insights has increasingly become a sought-after skill. This demands formal research initiatives by practitioners and it also requires the ability to listen intelligently to the information signals emitted from everyday activities, from inside as well as outside the organisation – and to learn from these. Dissertation helps build up on these skill sets.
- **Accentuation of Integrated thinking** - Organizations need leaders who can rise above the paradigms of their own functional expertise; leaders who can see the bigger picture. Dissertation helps the students to put his learning in a proper perspective and gain a holistic view of all functional areas.

All these qualities do offer an indirect benefit to the student during campus recruitment

Prerequisites

A student becomes eligible for Dissertation if he scores a CGPA of more than 7.00 till semester II. Dissertation is assigned only to top 20 percentile of the students of the class.

Mentoring

Each of the students is assigned a research supervisor from the faculty members on the basis of topic selected by the student. The student gets an opportunity to interact with him/her regularly on a one to one basis.

Best Project Award

The best dissertation is selected from each functional area, i.e. Finance, Marketing and HR. The selected project is awarded a certificate during the passing out ceremony of the batch.

FT-304MA
INTEGRATED MARKETING COMMUNICATION

Course Outcome: Student will…….

CO 1 – Understand the concept of Integrated Marketing Communication and its role in Marketing
CO 2– Discuss various components of IMC campaign
CO 3 – Comprehend role of advertising and Public Relations in IMC
CO 4 – Comprehend role, tools and importance of sales promotion in today's era as IMC component
CO 5 – Comprehend role and tools of Direct Marketing in IMC
CO 6 - Understandinginfluence of Personal Selling on customer and its importance in IMC
CO 7 – Explain the role of unconventional media and tools in communication
CO 8 – Discuss the importance of issues affecting International marketing Communications

COURSE CONTENTS

Unit 1: Introduction to Integrated Marketing Communication: The Promotional –Mix, Role of Marketing Communications in Marketing, Evolution and Importance of Integrated Marketing Communication, An overview of IMC components, Understanding the Communication process - Consumer Response Hierarchy, FCB planning Model, Budgeting and IMC campaign coordination

Unit 2: Advertising as an IMC Tool: Advertising concept, Advertising campaign, advertising objectives, Media Types and Message Strategy and coordination of Advertising with other IMC tools

Unit 3: Public Relations and Publicity: The concept, Types of Public Relations and Tools of Public Relations

Unit 4 :Sales Promotion as an Integration tool: Importance and growth of Sales promotions, Objectives and Sales Promotions Types, Risks of Sales Promotions

Unit 5: Direct Marketing and Personal Selling : Direct Marketing- importance and applications , tools of direct marketing ; Personal Selling- Role of Personal Selling, Personal Selling Process, Personal Selling as an individual communication tool as compared to other communication mediums

Unit 6: Events sponsorships: Meaning, Reasons of growth of sponsorships, Types of sponsorships : Unconventional Promotional Media**:** Word-of-Mouth Advertising, In-film promotion, Social Media Marketing,

Unit 7: International Marketing Communication: Role of international marketing communication in international marketing, Cultural and other differences, Global Vs. localized marketing communications

Suggested Books:

1. Advertising and Promotion: An IMC perspective- Belch and Belch, Tata McGrawHill
2. Advertising and Promotions: An IMC Perspective- Kruti Shah and Alan D'Souza, Tata McGrawHil
3. Wells, W. D., Moriarty, S., & Burnett, J ,Advertising: Principles and Practice. New Delhi: Pearson Education India.
4. Clow, K. E., & Baack, D, Integrated advertising, promotion and marketing communication. New Delhi: Pearson Education India.
5. Aaker, A. D., Batra, R. & Myers, J. G. , Advertising Management, 5th Edition. Pearson Education India.

FT-305MA CONSUMER BEHAVIOUR

Course Outcome: Student will…….

CO1: Understand what consumer behavior is and the different types of consumers
CO2: Understand the relationship between consumer behavior and the marketing concept, the societal marketing concept, as well as segmentation, targeting and positioning
CO3: Understand the relationship between consumer behavior and customer value, satisfaction, trust and retention
CO4: Understand how new technologies are enabling marketers to better satisfy the needs and wants of the consumers

COURSE CONTENTS:

Unit 1: Introduction to the study of consumer behavior: Nature, Scope and application.

Unit 2: Environmental influences on consumer behavior-I : Cultural, Social, Personal, Family, and situational influences, opinion leadership and life style marketing, characteristics of culture, cross-cultural understanding, nature of social class, social class and consumer behavior.

Unit 3: Environmental influences on consumer behavior- II : Nature and significance of personal influence, marketing implications of personal influence, significance of family in consumer behavior and family life cycle, Opinion leadership forms.

Unit 4: Consumer as an Individual: Involvement and Motivation, Knowledge, attitude, perception, values, personality, learning and life style, Dimensions of involvement and its marketing implications, nature and role of motive, classifying motive, characteristics, functions and sources of attitudes, Attitude theory and model, Characteristics and classification of learning, Personality theory and application, Psychographics, Consumer Gifting Behavior.

Unit 5: Consumer Decision Process: Pre-purchase Process, Information Processing, Purchase Processes, Consumer Decision Rules, Post – Purchase Processes: Framework, Dissonance, Satisfaction / Dissatisfaction.

Unit 6: Consumer Behavior Models: Nicosia Model, Howard Sheth Model, Engel-Blackwell and Miniard Model, Family Decision Making Model

Unit 7: Organizational Consumer Behavior: Difference between consumer and organizational buying behaviour, factors influencing organizational buying behaviour.

Suggested Books:- :

1. Consumer Behaviour, 10th Ed., Schifman Leon G, Kanuk Leslie Lazar, Ramesh Kumar, S., Pearson Education, UP, India
2. Consumer Behaviour 10th Ed, Blackwell Roger D., Miniard Paul W, Engel James F., Thompson Southwestern.
3. Consumer Behaviour: Building Marketing Strategy, 9th Ed.Hawkins Del I, Best
4. Roger J,Coney Kenneth A., Mookerjee Amit ,Tata McGraw Hill, New Delhi, India

FT-307MA
SALES AND DISTRIBUTION MANAGEMENT

Course Outcome: Student will…….

CO 1: It helps to achieve organizational goals and objectives by focusing on the aim and planning a strategy regarding achievement of the goal within a timeframe.
CO 2: Sales team monitors the customer preference, government policy, competitor situation, etc., to make the required changes accordingly and manage sales and distribution network.
CO3: By monitoring the customer preference, the salesperson develops a positive relationship with the customer, which helps to retain the customer for a long period of time.

COURSE CONTENTS:
Unit 1: Introduction to sales management – Concept of sales, Role of sales management in Marketing, Steps in designing and managing a sales force, Managing the sales force, sales strategies, Methods of selling.

Unit 2: Theories of sales management: AIDAS theory, right set of circumstances theory, buying formula theory, behavioral equation theory.

Unit 3: Personal selling function –Concept, objective, role of Personal selling in marketing mix, Process of Personal Selling, types of sales job.

Unit 4: Sales organizing ,Sales Forecasting, Quota and Territory Management – overview, purpose and concept of sales organization, developing a sales organization, Concept and techniques of sales forecasting, importance of sales quota, territory management, sales budget concept and techniques.

Unit 5: Operational sales Management: Recruitment Sources, Selection procedure, Sales force training, Compensation and Motivation of sales force, purpose of motivation, various modes of compensating the sales force, Model of the motivation process, factors affecting salespersons motivation.

Unit 6: Monitoring and Performance Appraisal: Principles of sales evaluation, evaluating Performance standards, field sales reports

Unit 7: Distribution: Introduction, objectives of channels of distribution, Flows in channels of Distribution, Patterns of Distribution, Management of channels, Managing cooperation, conflict and competition, Channel structure and design –Channel management – Channel decisions, Factors in selection of Distribution channels, Motivation of intermediaries, horizontal and vertical marketing system, Distribution Analysis, Control and Management: concept of physical distribution, order processing, warehousing, EDI and SCM, Scope of control, Tools for control, Kinds of control devices.

Suggested Books:

1. Sales and Distribution Management; Text and cases – Krishna K Havaldar & Vasant M Cavale
2. Basics of Distribution Management; Kapoor & Kansal
3. Sales Management- Decisions, strategy and Cases- Cundiff and Govni

FT-311MB
DIGITAL MARKETING

Course Outcome: Student will…….

CO1: Identify the basic understanding of digital marketing
CO2: Differentiate between Traditional Marketing and Digital Marketing.
CO3: Understand the strategies used in digital marketing environment.
CO4: Students must understand difference between Inorganic and Organic Content.
CO5: Develop basic understanding of Search Engine Optimisation.
CO6: Know the various Advertisement formats used in digital marketing

Course Contents:

Unit 1: Introduction and Fundamentals of Digital Marketing :
Definition, Scope, Advantages & Disadvantages, Process , Digital Marketing Vs Traditional Marketing , Functions and Responsibilities of Marketing Managers, Timeline and changes in Digital Marketing , Future of Digital Marketing

Unit 2: Content Creation Management and Curation:
Inorganic V/s Organic content, understanding of content marketing basics. classification of content channels (Video, Blog, website, articles, columns etc) , content curation.

Unit 3: Traditional Channels of Digital Marketing :
Search Engine Optimization, Social Media, Search engine marketing, Email Marketing.

Unit 4: Collective channels of Digital Marketing :
Mobile Specific , Inbound and Outbound Marketing, Affiliate Marketing, Influencer Marketing

Unit 5 : Paid and Sponsored Advertising Models:
Paid Ads on Search Engines, Paid Ads on Social Media, Paid Ads on e-commerce Platforms, Video Ads, Branded Content

Unit 6: Understanding of Analytics:
Search Engine Analytics , Social Media Analytics and Insights , Advertising Analytics, Vanity Metrics and Actionable Metrics

Unit 7: Case Study and Practical using analytical tools using Google analytics, facebook analytics)

Suggested Books:-

1. Digital Marketing For Dummies by Russ Henneberry and Ryan Deiss
2. The New Rules of Marketing and PR: 6th Edition by David Meerman Scott
3. Hit Makers: The Science of Popularity in an Age of Digital Distraction by Derek Thomson, 2017

Web Reference:

1 www.searchengineland.com
2 www.searchenginejournal.com
3 www.socialmediatoday.com
4 www.business2community.com

FT-312MB
GLOBAL MARKETING

Course Outcome: Student will…….

CO1: Discuss the various phases in the evolution of Global Marketing.
CO2: Define and distinguish between marketing, foreign marketing, international marketing, and global marketing; marketing management and international marketing management.
CO3: Discuss the various factors that limit standardization of global marketing strategies.
CO4: Discuss the major players in the global markets and Assess the importance of studying global marketing and in having a global mindset.

COURSE CONTENT:

Unit 1: Introduction to International Marketing: Definition, Scope and Importance; Emergence of Globalization and International Marketing; International market orientation - EPRG framework; Challenges in International Marketing. Difference between Domestic, International, Multinational, Global Markets, EPRG Frame Work, Introduction to export documents

Unit 2: International Environment: Environmental Influences on International Marketing; Cultural environment; Economic environment; Political and Legal Environment; Role of International Agencies.

Unit 3: Planning for International Markets: International Market segmentation and positioning International Markets; Market regions and groups; Market entry methods.

Unit 4: Product Strategies: Standardization, Adaptation; International PLC; Designing new products Country of Origin Effect.

Unit 5: Pricing Strategies: Role of price in International Marketing; Factors affecting international prices; Pricing methods and strategies; Challenges in international pricing., Transfer Pricing, Exchange Rates and Its Impact on Pricing.

Unit 6: Distribution Strategies: Distribution channels for international markets; Factors affection distribution in International markets; Distribution Strategies.

Unit 7: Promotion Strategies: Factors affecting promotion in International markets; Using marketing communications tools for international promotion; International Branding strategies. Global Media Decisions, Global Advertising Regulations.

Suggested Books:-

1. Global Marketing Management, Keegan –New Delhi, PHI.
2. International marketing, Czinkota.and Ronkainen, Thomson-South Western, New Delhi.
3. Sak Onkvisit and John J. Shaw. "International Marketing Analysis and Strategies**",** New Delhi PHI, 1998.
4. Subhash S. Jain, "International Marketing Management", Delhi, CBS Publishers Distributors, 1997.

FT-313MB
RURAL AND RETAIL MARKETING

Course Outcome: Student will…….

CO1: Develop an insight into rural marketing regarding different concepts and basic practices in this area.
CO2: Understand the challenges and opportunities in the field of rural marketing.
CO3: Identify significance of the rural markets.
CO4: Nature and characteristics of rural markets and factors contributing to the change in the rural market

COURSE CONTENT:

Unit 1: Rural marketing – definition, concept, characteristics. Rural market profile (Statistical data).Analyzing the differences Between Rural and Urban Management. Demand of products and services in Rural Areas.

Unit 2: Rural marketing Environment: Distinctive Marketing Environment in Rural India.

Unit 3 : Rural Marketing Segmentation, 4 P's and Consumer behavior ,Income segmentation, PEST analysis , Rural Consumer Behavior , product decision , pricing decision ,Promotional mix, Distribution Network in rural Marketing.

Unit 4: Retail Marketing – concept, definition functions of retailing, retail planning process, Organized and unorganized retailing , types and formats of retailing.

Unit 5: Change In Retail Environment: Socio Economic, Socio Demographic, Technological Changes And Its Impact On Retail Industry, Retail Marketing, Planning And Development.

Unit 6: Fundamentals of Merchandising and types of merchandising.

Unit 7: Role of technology in retail : Importance of IT in retail , factors affecting use of technology , applications of technology **,** internet retailing.

Suggested Books:-

1. Retailing Management by Swapna Pradhan
2. Rural Marketing In India By Ahmed Shamim.
3. Retail Marketing By David Gilbert.
4. Rural Marketing By V E Sanal Kumar.

FT- 315FA FINANCIAL MARKETS AND FINANCIAL SERVICES

Course Outcome: Student will…….

CO1: Understand the various financial services and products in the liberalized Indian economy.
CO2: Know in-depth perspective of the equity and bond markets.
CO3: Enlighten the students with the Concepts & Practical dynamics of the Indian Financial System, Markets, Institution, and Financial Services.

COURSE CONTENTS

Unit 1: Financial system and its components: Introduction , Nature and role of Financial System; Financial System and its components ; Financial system and economic development. Financial services: Introduction of Financial Services and its types; Fund Based and fee based services.

Unit 2:Financial Markets I: Capital market; Primary Market: Role; Instruments; Pricing Mechanism – Fixed / Book building; Issue mechanism : IPO, FPO etc.; Green Shoe Option. Funds from International Markets: FII's, Euro Issues, ADR's, GDR's and FDI.

Unit 3: Financial Markets II: Secondary Market: Introduction to Stock Exchanges, Depository and Custodian. Money market: Call money market; Treasury Bills Certificate of deposit, commercial Paper market. Derivatives: Concept and introduction to derivatives.

Unit 4: Financial services I: Venture capital: Concept, need and process. Mutual funds: Introduction, Structure of Mutual industry, Types of Funds, Advantages of Mutual Funds, Concept of SIP and rupee cost averaging.

Unit 5: Financial services II: Merchant banking : Concept and functions; SEBI guidelines. Securitization: Basic Concept; Asset Backed Security; Mortgage backed Security.

Unit 6: Other Services : Factoring : Reasons for factoring; Services provided; parties involved; Types; Process of factoring. Credit Rating: Meaning and Necessity; Credit Rating Agencies; Methodology of Credit rating.

Unit 7: Lease Financing: Concept of Leasing, Lease Evaluation : Buy vs. Lease decisions Role of SEBI: an overview; State Financial Corporation and Development Financial Institutions (Development banks)– Concept, objective.

Suggested Books:-

1. Khan, M.Y. (2011) Financial services (5th ed.). New Delhi: Tata McGraw Hill Publications.
2. Bhalla, V.K. (2010) Management of financial services (1st ed.). New Delhi: Anmol Publications Pvt. Ltd.
3. B.S.bhatia, G.S.Batra," Management of capital markets, financial services and institutions"' Deep and Deep publications, 2000.

FT-314FA SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

Course Outcome: Student will…….

CO1: Develop in dept understanding of investment techniques as applied to various forms of securities and acquaint them with the functioning of mutual funds, investment strategies and portfolio management services
CO2: To understand the importance of equity research.
CO3: To understand how excel can be leveraged for better analysis of a company
CO4: To give recommendation based on fundamental and technical analysis

COURSE CONTENTS

Unit 1: Introduction: Concept of Investment, Investment V/S Speculation, Investment Environment, Instruments, Characteristics And Objectives Of Investment, Trading of Securities

Unit 2: Risk and Return in trading: Concept of Risk And Return, Types of Risk Systematic And Unsystematic Risk, Measurement of Risk.

Unit 3: Valuation of Securities: Valuation of Fixed Income Securities: PV Model, Bonds prices & Yield, Term Structure of interest rates, Bond Value Theorem. Valuation of Equity: Constant Growth Model, Multi-Stage Growth Model, P/E Ratio and Earnings Multiplier Models. Valuation Of Preference Shares, Valuation of Warrants, Rights Issued

Unit 4: Security Analysis: Fundamental Analysis – Macro Economics and Industry Analysis, Business Cycles, Company Analysis, Technical Analysis - Trend analysis, Price and Volume indicators, Dow theory, Elliott Wave Theory.

Unit 5: Capital Market Theories: CAPM Model, Arbitrage Pricing Theory, Index Model, Efficient Market Hypothesis, Factor model.

Unit 6: Portfolio Creation: Portfolio and Security Returns, Diversification, Markowitz Model, Sharp Index Model.

Unit 7: Portfolio Evaluation: Measures of Returns, Formula, Plans, Sharpe and Treynor Measures.

Suggested Books:-

1. V.K.Bhalla, "Investment Management: Security Analysis And Portfolio Management", S. Chand And Sons, New Delhi, sixth edition 1999.
2. Donald E. Fisher and Ronald J. Jordan, "Security Analysis And Portfolio Management", PHI Publication, New Delhi, 1998.
3. V.A. Avadhani, "Investment and Security Markets In India", Himalaya Publication, Bombay, 1998.
4. Edwin J. Elton and Martin J. Gruber, "Modern Portfolio Theory And Investment", John Wiley and Sons, Singapore, 1996.

FT-316FA INSURANCE AND BANKING

Course Outcome: Student will…….

CO1: Enhance understanding of fundamentals of risk in Insurance and Banking.
CO2: Understand banking system in India, retail and corporate products of banks in India.
CO3: Understand payment and settlement systems in India.
CO4: Understand functions of RBI.
CO5: Understand legal environment for Insurance and banking.
CO6. Understand basic principal and practices of Insurance in India.

Course Contents

Unit 1: Risk and Insurance:

Concept of risk and its classification, Management of risk, Insurance as risk management technique, Functions of insurers, Classification of Insurance.

Unit 2: The Basic Principle of Insurance:

Utmost good faith, Insurable Interest, Indemnity, Subrogation, Proximate cause. Insurance Contract, Reinsurance: Concept, types and advantages of reinsurance.

Unit 3: Practice of Insurance:

Life Insurance: Products, Riders, Options, Computation of Premium & Bonuses, documents and Claims. General Insurance: Products, Rating, and Concept of Underwriting, Claims.

Unit 4: Commercial Banking I:

Introduction & meaning of a Bank, Structure of Banking System in India , Retail & Corporate Products of Commercial Bank, Credit Creation, Forms of Bank Customer Relationship, Types of customer and their accounts, Bank Duties and Rights.

Unit 5: Commercial Banking II:

Payment & Settlement System: Introduction, Clearing House System, Cheque Truncation System, NEFT, RTGS, IMPS and other high tech innovations in banking

Unit 6: Central Banking:

Introduction and Function of Indian Central Bank.

Unit 7: Legal Environment- Insurance and Banking:

Insurance Regulatory Authority- Profile, Function & Power
Negotiable Instruments: Characteristics, Types including Cheques, Draft, Bill of exchange, Promisory notes

Text and Reference Books:

1. K C Shekhar and Lekshmy Shekher, Banking Theory and Practice, Vikas Publishing House Pvt Ltd.
2. Justin Paul and Padmalatha Suresh, Management of Banking and Financial Services, Pearson Education.
3. Roger Leroy Miller and David D Vanhoose; Modern Money and Banking; 3rd ed.; Mc Graw Hill.
4. D M Mithani, Money Banking, International Trade and Public Finance. Himalaya Publishing House.
5. Principle of Risk Management and Insurance by Geoge E Rejda, Pearson Education
6. Risk Management and Insurance; Trieschmann, Gustavson, Hoyt., Cengage Learning
7. Principle of Insurance, IC-01, Insurance Institute of India
8. Practice of Life Insurance, IC-02, Insurance Institute of India
9. Practice of General Insurance, IC-11, Insurance Institute of India

FT-310FB FINANCIAL ENGINEERING AND RISK MANAGEMENT

Course Outcome: Student will…….

CO1: In this course, we will survey the types of derivative securities used in financial risk management.
CO2: Apply critical thinking skills to complex business problems including, Identifying and examining relevant issues and information, Generating and evaluating possible solutions to problems.
CO3: Use quantitative analytical skills to Identify and analyze material factors that are involved in derivative issues, Determine and apply appropriate problem-solving techniques to risk management and derivatives issues.
CO4: Use information technology as a tool to obtain information concerning financial instruments in the derivatives area.

COURSE CONTENT

Unit 1: Introduction to Financial Engineering: Financial Engineering: Concept and Scope, Factors which contributed to Growth -Environmental Factors (dividend capture strategy, tax asymmetries, etc.), Intra-firm factors (agency cost-leverage buyouts, risk aversion, quantitative sophistication) .Financial engineering v/s financial analysis. Financial Engineer: tools (conceptual and physical), Roles (deal makers, innovators, loophole exploiter)

Unit 2: Risk & Risk Management: Types of Risk: financial, non financial, default, market price, pre-settlement, basis, interest rate risk, etc. Developing risk profile. Risk management techniques: asset liability management (foundation concepts -term structure, maturity composition etc., cash flow matching strategy, currency matching strategy and portfolio immunization strategy) and hedging.

Unit 3: Physical Tools of Financial Engineer –I: A. Debt market innovations: Multiclass Mortgage backed and Asset backed Securities, Shelf Registration, junk bonds; Hybrid securities: Interest rate /Foreign exchange Hybrid, Interest rate / Equity hybrid , Currency /Commodity Hybrid

Unit 4: Derivatives Part –I: Introduction to forwards, futures and options Derivatives: Concept, Participants in derivative market, and Types of traders. Forward Contract: Concept and valuation. Forward Rate Agreement: the product and hedging with FRA (numerical), Futures Contract: Specifications, Trading, Types of orders, Operation of margins and future prices and spot prices.

Unit 5: Derivatives Part –II: Pricing Stock and Index Futures(numerical) , Hedging: concept of composite hedging and cross hedging , hedge ratio –naïve and minimal variance hedge ratio (numerical), hedging using stock Index futures contract and optimal number of contacts for hedging (numerical)

Unit 6: Derivatives Part –III: Option Contracts: Types ,Characteristics, Intrinsic value and time value , moneyness of the option, payoff from the put and call option. Hedging with stock option and index option . Option trading strategies : Basic strategies ; Option spreads : Vertical spreads (bullish :put and call and bearish: put and call)and Horizontal spreads . Straddle , Straps and Strips , butterfly spread.

Unit 7: Derivatives Part –IV: SWAP: concept and rationale . Interest rate SWAPS: Types (plain vanilla, accrediting , amortizing ,etc.) , mechanics and valuation (numerical) Currency SWAPS & their valuation Concept of Black Scholes Model and its limitations .

Suggested Books:-

1. Hull, J. C. (2011) .Options, futures, and other derivatives (8th ed.). Prentice Hall.
2. Varma, J. R. Derivatives and risk management.(1st ed.) Tata McGraw Hill Publications.

FT-309FB CORPORATE FINANCIAL ANALYSIS

Course Outcome: Student will…….

CO1: Understand the conceptual background for corporate financial analysis from the point of corporate value creation.
CO2: The course develops theoretical framework for understanding and analyzing major financial problems of modern firm in the market environment.
CO3: The course covers basic models of corporate capital valuation, including pricing models for primary financial assets, real assets valuation and investment projects analysis, capital structure, derivative assets and contingent claims on assets.
CO4: Develop skills in analyzing corporate behavior in capital markets and the relationship of agent and principal in raising funds, allocating capital, and distributing returns.

COURSE CONTENTS

1. **Fundamentals of Corporate Financial Reporting and Analysis:** Introduction to Business Analysis, Types and Components of Business Analysis, Financial Analysis; its Need and Necessity, Financial Statements; the basis of business analysis, Inter-linkage Between Financial Statements, An Introduction to Tools/Techniques of Financial Analysis, Financial Reporting in India, Reporting Environment and Factors Affecting Statutory Financial Reports, Financial Accounting- Important Principles, Relevance, Limitations, Cash vs. Accrual Accounting.
2. **Balance Sheet Analysis:** Current vs. Non-current Liabilities, Analyzing Current Liabilities, Analyzing Non-current Liabilities, Analyzing Contingencies and Commitments, Off-balance sheet Financing and its Analysis, Analyzing Shareholders' Equity, Current vs. Long-term Assets, Analyzing Current Assets, Analyzing Long-term Tangible Assets, Analyzing Long-term Intangible Assets, An Introduction to Inter-corporate Investments and its Analysis, Case Studies' Analysis.
3. **Income Statement Analysis:** Concept of Income and its Measurement, Extra-ordinary and Special Items in Income Statement; Their accounting and Analysis, Revenue and Gain Recognition; Its recording and Analysis, Deferred Revenue Charges; Its recording and Analysis, Income Taxes; Its recording and Analysis, Return on Invested Capital and Analysis of Profitability, Case Studies' Analysis.
4. **Cash Flow Analysis:** Relevance of Cash, Concept of Cash Flow and Components of Cash Flow Statement, Analysis of Cash Flow from various activities and its Interpretation, Inter-linkages between overall inflow and outflow of cash, Inferences from Cash Flow Analysis, Specialized Cash Flow Ratios, Limitations of Cash Flow Reporting, Case Studies' Analysis.
5. **Cost Analysis for Financial Decision Making:** Concept of Cost and its Classification from the perspective of Financial Decision Making, Marginal, Absorption and Differential Costing, Concept of Relevant Cost, Income Statements under Marginal, Absorption and Differential Costing, Alternative Choices Decisions using Cost Analysis; Make or Buy, Add or Drop Product, Exploring New Markets, Sell or Process Further, Operate of Shut Down, Replace or Retain, Own or Hire, Expand or Contract, Special Orders, etc.
6. **Forecasting Financial Statements** - A Typical One-Year Projection, Sensitivity Analysis with Projected Financial Statements, Projecting Financial Flexibility.
7. **Misc. Issues in Corporate Financial Analysis:** Prospective Analysis, Credit Analysis, Equity Analysis and Valuation, Recent Trends in Corporate Financial Analysis.

Suggested Books:-

1. Financial Statement Analysis by Wild, Subramanyam and Halsey, McGraw-Hill Publication.
2. Financial Statement Analysis by Gibson, Cengage Learning
3. The Analysis and Use of Financial Statements by White, Sondhi and Fried, Wiley India Ltd.
4. Financial Accounting: Reporting and Analysis by Stice and Stice, Thomson Learning Inc.
5. Corporate Financial Reporting; Theory, Practice and Cases by Jawaharlal, Taxman Publications Pvt. Ltd.

FT-314FB: FINANCIAL PLANNING AND WEALTH MANAGEMENT

Course Outcome: Student will…….

CO1: Understand the environment of personal finance and Financial Planning
CO2:Understand how personal financial decisions are made. Student will be able to explain the process used to develop a personal financial plan.

COURSE CONTENTS

1. **Fundamentals of Personal Financial Planning:** Introduction to Financial Planning: Concept and approaches of Financial Planning, Components of Financial Planning, Financial Planning Process, Objectives, Concept of Personal Financial Planning.
2. **Avenues for Personal Investment:** Avenues of Personal Finance and their merits and limitations- Fixed Income Instruments, Mutual Fund Products, Equity Market, Derivatives and Commodities, Hedge Funds, Provident Fund and Pension Schemes, Insurance Policies & Other investments.
3. **Creating Personal Financial Plan:** Personal Financial Statements; Concept, Preparation, Cash inflows and outflows- Cash Management, Income and expenditure statement, Budgeting and forecasting, Monitoring budgets and provisions for savings, Personal Balance Sheet and Net Worth.
4. **Considerations in Personal Financial Planning:** Tax Planning in Personal Financial Planning - Personal Taxes (IT, Wealth Tax and Property Taxes Etc.) and their role in Personal Financial Planning, Developing appropriate strategies and presenting the financial plan, Implementing the financial plan, Monitoring the financial plan, Ethical and professional considerations in financial Planning
5. **Retirement & Personal Financial Planning: Introduction,** Need & Issues in retirement planning, Analysis of Investor's Life Cycle, Avenues for retirement Planning, Types of retirement plans, Profile of Assets sustainable through retirement, Income generation potential of fixed assets , Liquidity aspects of fixed and other assets, Profile of financial and other liabilities near retirement age.
6. **Housing, Real Estate & Personal Financial Planning:** Concept of Housing, Various Aspects of Housing, Costs and Benefits associated with owing a house, Rent or Buy Decision, Various options/types of House Financing, Key Considerations in Housing Decision, Concept of Real Estate, Features of Real Estate Investment, Taxation and Real Estate Planning, Property documentation and disposition, Housing, Real Estate and Personal Financial Planning.
7. **Wealth Creation- Factors and Principles:** Income and savings ratio, Allocation of savings to asset classes , Consistency in savings and monitoring , Taking strategic advantage of opportunities in various Asset Classes , Overall effective yield and tax aspects , Wealth protection and Erosion of wealth

SUGGESTED BOOKS

- Personal Financial Planning by Harold A. Wolf "Simon & Schuster Custom Publishing".
- Financial Planning and Wealth Creation "Taxmann Allied Services Pvt. Ltd.
- Personal Finance "Pearson Education:

FT-314 HA HUMAN RESOURCE DEVELOPMENT

Course Outcome: Student will…….

CO1: Develop capabilities of all individuals working in an organization in relation to their present role
CO2: Develop capabilities of all such individuals in relation to their future role
CO3: Develop coordination among different units of an organization
CO4: Develop organizational health by continuous renewal of individual capabilities & keeping pace with the technological changes

Course Content:

Unit 1: Concept of HRD: Evolution of Human Resources Development, objectives of HRD, Goals of HRD, Importance of HRD. A framework for the HRD process, HRD functions, Role of a HRD professionals.

Unit 2: Orientation:- Company Orientation, Department Orientation, Orientation kit, Orientation Length and Timing.

Unit 3:Training:- Defining Training, Objectives of Training, Types of training, Systematic approach to training, training methods

Unit 4: Performance appraisal: Performance Appraisal Methods, Errors in performance appraisal

Unit 5: Career planning and development: Coaching- Role of Supervisor and managers in coaching, Coaching to improve poor performance .process of employee coaching

Unit 6: Counseling & mentoring: Objectives of Employee Counseling , Employee counseling skills, functions of Employee counseling, Concept of mentoring, characteristics of Mentoring Principles of mentoring, Qualities of good mentor and mentee, importance of good mentoring, Role of mentor, Mentoring process, benefits of mentoring

Unit 1: HRD strategies:-Formulation and Implementation of HRD Strategies, Creating a World Class Organization.

Suggested Books:

1. Jerry W Gilley and Stevens A. England, ”Principles of HRD”, USA., Addison Wesley, 1989.
2. Lloyd L. Byars, Leslie W Rue, “HRM, Third Eddition”
3. T.V.Rao, ”HRD Audit”, New Delhi, Sage Publications, 1999.
4. “HRD”, Randy Desimone, Jon M.Aner, David M.Harris
5. “Managing People”,V.S.P, Rao, Excel Book, New Delhi.
6. “Human Resource Planning”, Deepak Kumar Bhattacharya.
7. “Studies in HRD”, H.L Verma, BS Bhatia, MC Garg

FT 316 HA MANAGING PEOPLE

Course Outcome: Student will…….

CO 1: Build Effective Team Processes
CO 2: Structure and Organize the World Load Effectively
CO3: Build Positive Working Relationships with Senior Management and other Colleagues
CO 4: Build the Habit of Setting Short-term Goals to Achieve Long-term Objectives

Course Contents:

Unit 1: Human resource management: Overview, Concept of HRM, objective of HRM, trends enhancing the importance of HRM, challenges before the HR managers, HRD at macro and micro levels, personnel function vs. HRM.

Unit 2: Job analysis & human resource planning: Nature of job analysis information, writing job description/job specification, employment planning, methods of employee demand forecasting.

Unit 3: Recruitment, selecton, & orientation: concept of recruitment, sources of recruitment, recruiting a more diverse work force, concept of selection, features and types of selection, interviews, orientation – Meaning, process and importance.

Unit 4: Career development: Meaning of career, concept of career from an individual and organizational view points, implications of work place changes for individuals and organizations, importance of understanding career development, career anchors, paths and ladders, career counseling and problems of dual career couples.

Unit 5. Participation and empowerment: Definition and objectives, forms of participation, govt. policies and participation, Work committees, joint management councils, empowerment, delegation and empowerment QWL.

Unit 6. Grievance: Meaning and sources, Guidelines and procedures for handling grievance.

Unit 7. Collective bargaining and developing teams: Meaning and Process of collective bargaining, Developing Teams: Teams vs. groups, types of teams, team building, and team development.

Suggested Books:

1. **Venkatratnam and Srivastava** – Personnel Management and Human Resources.
2. **Pattanaik Biswajeet** – Human Resource Management
3. **De Cenzo, Stefan Robbins** – Human Resource Management.

FT-315 HA TRAINING AND DEVELOPMENT

Course Outcome: Student will…….

CO1: Learn to Induce new employees
CO2: Gain knowledge on new method of Training and development help to gain knowledge on a new method.
CO3: Obtain knowledge of company policy.
CO4: Earn knowledge on customer relations

COURSE CONTENTS:

Unit 1: Introduction and Concept: Overview of training and development, Present status of training, Conceptual status of training effectiveness

Unit 2: Systems approach to training

Unit 3: Pre-factors (context) - Learning principles, assessment of training needs, preparing training plans and strategies (OJT Institutional Training), selection of trainees etc.

Unit 4: Training management (context) – Training facilities, supporting infrastructure, areas of satisfaction and dissatisfaction, Training process - Instructor, pedagogy learning climate.

Unit 5: Training outcomes: Training outcomes – Evaluations

Unit 6: Training & Development programs: Self development / individual development.

Unit 7: Executive development programs- Management development programs

Suggested Books:-

1. Sah A K, Training and development.
2. Ramaswami A, Handbook of T& D.
3. Rolf P. Lynton, Training for organizational transformation.

FT 313HB COMPENSATION AND REWARD MANAGEMENT

Course Outcome: Student will…….

CO1: Learn to Attract Top Talent in a company.
CO2: Learn to Retain & Reward Personnel for their performance
CO3: Learn to Boost Motivation
CO4: Learn to Maximize Return on Investments

Course Contents :

Unit 1: Concept of Wages & Salary, Minimum Wage, Fair Wage and Living Wage– Theories of Wages & Salary–Pay and Social Class–Machineries for Wage Fixation– Statutory provisions governing different components of reward systems–.Wage criteria and wage machinery— Wage Components—Salary Benchmarking, designing KRA & KPI(8 Lecture Hours)

Unit 2: Reward Management: Concept, Aims, Components of Reward system– Role of Reward in organization– Strategic perspectives of Reward–Reward as a motivational tool– Psychological contract–Reward policies Factors determining the rates of Pay–Strategic and Tactical pay related issues–Establishing Job Values and Relativities: Internal & External Equities–Job evaluation schemes, Internal Pay Structure, Reward survey–Designing Pay Level, Pay Mix and Pay Structures–Grade and Pay structures: Types, Design and Implementation— Group/Individual Incentive, Designing Incentive Scheme

Unit 3 Rewarding and Reviewing Contribution and Performance: Individual Contingent Pay–Team Pay – Paying for Organizational performance–Recognition Process–Performance Management and Reward. Reward for Special groups–Directors, Chief executives, Senior Managers, professionals and knowledge workers, Scientists and Engineers, Sales Staff, contingent workers –Components of Executive Compensation package.

Unit 4: Employee Benefits & Services–Rationale for employee benefits–Types of benefits, Choice of benefits, administering employee benefits, Tax considerations–Flexible benefits/Cafeteria Plans–Pension Schemes–ESOP-Computations of taxable income, overtime, etc.

Unit 5: Managing Reward Processes: Reward Management Roles–Reward Procedures–Controlling reward–Pay reviews–Communicating to employees–Managing the development of reward systems–Future Trends in Reward Management

Unit 6: Strategic Reward: Concept, Aims–Strategic Reward and Reward Management–Purpose and Contents of Reward

Unit 7: Strategic Reward and Performance–Reward strategies in a Knowledge economy–Reward Strategies in a Service-based economy–Developing reward strategy–Communicating reward strategy – Implementing reward strategy (10 Lecture Hours)

Suggested Books:-

1. Armstrong & Stephens, Employee Reward Management and Practice, Kogan Page
2. Strategic Reward, Armstrong & Brown, Kogan Page.
3. Henderson, R.O., Compensation Management, Englewood Cliffs, Prentice Hall
4. Armstrong, M and Murlis H, Reward Management, Kogan Page.
5. Cascio, Costing Human Resource, Thomson Learning,, India
6. Martocchio Joseph J., Strategic Compensation-A Human Resource Management Approach, Pearson Education.

FT 312HB HUMAN RESOURCE PLANNING AND AUDIT

Course Outcome: Student will…….

:
CO1: Identify performance of the Human Resource Department and its relative activities in order to assess the effectiveness on the implementation of the various policies to realize the Organizational goals.
CO2: Identify the gaps, lapses, irregularities, short-comings, in the implementation of the Policies, procedures, practices, directives, of the Human Resource Department and to suggest remedial actions.
CO3: Know the factors which are detrimental to the non-implementation or wrong implementation of the planned Programmes and activities.
CO4: Understand measures and corrective steps to rectify the mistakes, shortcomings if any, for future guidance, and advise for effective performance of the work of the Human Resource Department.
CO5: Will be able to evaluate the Personnel staff and employees with reference to the Performance Appraisal Reports and suggest suitable recommendations for improving the efficiency of the employees.
CO6: Able to evaluate the job chart of the Human Resource Managers, Executives, Administrative Officers, Executive Officers, Recruitment Officers, whether they have implemented the directives and guidelines for effective Management of the Human resources in their respective Departments.

Course Contents:

Unit 1: Human Resource Planning: Definition, HR Planning, Model for HR Planning, forecasting Demand and Supply, Planning for Shortages, Surplus, Planning for New Establishment, Managerial Succession Planning, Career Planning.

Unit 2: Downsizing, HR information System: Purposes of HRIS, Uses of HRIS, Establishing an HRIS, Approaches to Evaluate HR Function.

Unit 3: HRD Audit: Meaning and Concept, Need, Designing HRD Audit Process, Parameters to be Audited, Audit Results, Preventive and Corrective Actions, Role in Business Improvement, Methodology and Limitations.

Unit 4: HRD culture: OCTAPACE Culture, Importance of Top Management Styles in Building Culture, Auditing the HRD Culture.

Unit 5: HRD styles : Types of top management styles , Current Structures and Structural Alternatives.

Unit 6: HRD Competencies: Challenges, Professionalism in HR, Myths and Realities of HRD, Competencies Needed, Auditing HRD Competencies, individual interviews, Group interviews, Observation, HRD Audit instruments.

Unit 7: HR Performance and Benchmarking in Policy, Process and Management Styles, Benchmarking Analysis

Suggested Books:

1. Donald Currie, "Personnel in Practice for the New IPD-CPP", Blackwell, MA, 1997.
2. R. W. Mondy and R. M. Noe, "Human Resource Management", Prentice Hall, London, 6th Ed., 1996.
3. T. V. Rao, "HRD Audit", Response Books, New Delhi, 1999.
4. Satish Pai Ed., "HRD Skills for Organizational Excellence", Bombay, Himalaya Publishing House, 1999.

FT-311HB STRATEGIC HUMAN RESOURCE MANAGEMENT

Course Outcome: Student will…….

CO1: Develop Advance flexibility, innovation, and competitive advantage.
CO2: Develop a fit for purpose organizational culture.
CO3: Able to improve business performance through strategic HRM through hiring, training, and rewarding employees.
CO4: Students will be able to look at ways that human resources can make a direct impact on a company's growth. HR personnel need to adopt a strategic approach to developing and retaining employees to meet the needs of the company's long-term plans

Course Contents:

Unit 1.Introduction: The changing economic, business, technological, socio-cultural and political environment and its implications for managing organizations and human resources; Business and organizational restructuring and its implications for human resource management; Corporate strategy and human resource management.

Unit 2.The HRM and approaches to HRM: HRM in personnel management; work organization and systems; social organization of the work place and its strategic importance; Human resource policies; Integrating Human Resource Strategies with corporate strategies; Human Resource Management as an approach to organization design and the role of HRM in organization management.

Unit 3.Strategic HRM: Human Resource Management in other countries; Human Resource Planning and its linkage to corporate planning; HR planning process, techniques/methods; HR planning in an ongoing organisation; integrating HR plans with other plans and management functions; Future directions of HR planning; Developing HR information system.

Unit 4. New HRM Trends: Technology and structure; Demographic changes, Temporary and contract labor; Global environment; Global competition, Global sourcing of labour.

Unit 5.**Online recruitment**; Employee referrals; Recruitment process outsourcing, Head hunting; Executive education; Flexi timing; Telecommuting, Quality of work life; Work – life balance; Employee empowerment, Employee involvement; Autonomous work teams.

Unit 6.**Creating a learning organization**: Competency mapping; Multi-Skilling , Using scorecards for employee development, Succession planning; Cross cultural training, Defining key result areas (KRA); Result based performance, Linking performance to pay; Merit based promotions,
Performance based pay; Skill based pay; Team based pay, Broad banding; Profit sharing; Executive Compensation; Variable pay.

Unit 7. **HR as a value added function**: Downsizing, Voluntary retirement schemes (VRS), HR outsourcing; Early retirement plans; Leadership, power and politics; Employee morale; Personal values and business ethics, Introduction to global HR strategies; Developing HR as a value added function.

Suggested Books:-

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

FT-402B: BUSINESS ETHICS AND CORPORATE GOVERNANCE

Course Outcome: Student will…….

CO1: Be able to aware and examine the significant contemporary ethical issues and challenges existing in Business today.
CO2: Comprehend fundamentals of corporate governance in India and other countries in light of good governance and contemporary changes in the global business environment.
CO3: Be able to examine ethical dilemmas and decision making frameworks and approaches at the personal, organizational and societal levels will be explored.

COURSE CONTENTS

1. **Introduction to Business Ethics:** Definition & nature, Characteristics of ethical problems in management, Ethical theories; Causes of unethical behaviour; Work ethic, Values , Norms, Beliefs and Standards.
2. **The Institutionalization of Business Ethics:** Ethics and organisation, Ethics in practice- in functional areas (Like HR, Marketing, Finance), Intellectual Property rights, Code of ethics; Competitiveness, organizational size, profitability and ethics, Developing an Effective Ethics Program.
3. **Ethical Decision-Making and Ethical Leadership:** Models of Decision making, Individual Factors: Moral Philosophies and Values, Indianism and Indian Value Systems, Servant Leadership.
4. **Corporate Governance:** Evolution, Principles, Main Drivers, Theories and Models, Global Practices on Corporate Governance in the World and their impact on corporate world.
5. **Business Environment:** Political and Legal Environment, Cultural Environment, Managing Across Cultures, Negotiating Across Cultures, Economic Environment, Technological Environment, Broader Ethical issues in society.
6. **Corporate Social Responsibility:** Stakeholder Management and Social Responsibility, Big Business and society Business, Ecological/Environmental issues in the Indian context, Understanding CSR, CSR in India, World Economic Growth and the Evolution of CSR.
7. **Sustainable Businesses:** Concept of Sustainable Development, Gandhian Thought on Sustainable development, dimensions of sustainable development – Environmental, Economic and Social, Indian & Global Perspective on Sustainable Development.

SUGGESTED BOOKS

- Business Ethics, CSV Murthy, Himalaya Publishing
- Business Ethics and Corporate Governance, ICFAI publication
- Business and its Environment Davis, Kaith and Blostorm, Robert-.
- Corporate Social Responsibility Beeslory, Michel and Evens –.
- Ethics in Management by S.A. Sherlekar, Himalaya Publishing House
- The International Business Environment, Hamilton, Oxford Press

FT 416MA PRODUCT AND BRAND MANAGEMENT

Course Outcome: Student will…….

CO1: Understand various concepts involved in learning Product and Brand Management for the success of any concern.
CO2: Understand how the product manager implements business strategy in the marketplace and to acquaint the students with the process and strategies of new product management.
CO3: Be Able to explore the methodology for managing the cohesive development and marketing of new products from idea inception to product discontinuation.
CO3: Be Able to apply these principles at the consumer level that will improve managerial decision-making with respect to brands.

COURSE CONTENTS:

1. Product Management: Introduction and concept of product, Product components, objectives of Product Management, Roles of Product Manager.

2. Product mix and product line decisions, Growth strategies for the FMCG.
3. New Product Development :Routes of new product development, Process of new product development, the latent factors behind marketing success and failure of any new product, Product elimination strategies
4. Brand Management: Branding concept, Benefits of Branding, Brand perspectives, Characteristics of a Brand, Branding decisions **,** Global branding: Concept, advantages and disadvantages
5. Brand Personality and Brand Extension : Brand Personality :Introduction, concept Types and brand personality scale .Brand Extension: Types of Brand extension, Strategies for successful brand extension
6. Brand positioning and Repositioning: concept and methods of positioning and repositioning

7. Brand equity and Brand loyalty: Brand Equity :Introduction and concept of brand equity, Cost based, price based, customer based Methods . Brand Loyalty: Concept, Loyalty pyramid

Suggested Books:

1. Product Management by R. Majumdar
2. Strategic brand management by Kevin Lane Keller.
3. Brand Management by Y.L.R.Moorthy.
4.Doyle, P. (1989), " Building successful brands : The strategic options" , Journal of Marketing Management.
5. Kapferer, J.- N.(1997), Strategic Brand management.
6.Brand Equity of "The Economic Times" newspaper.

FT 418MA SERVICE MARKETING

Course Outcome: Student will…….

CO 1 – Be Equipping with core competencies and skills sets suitable for service sector
CO2 – Create an in-depth understanding of service sector, service concept and service characteristics
CO 3 – Understand service marketing mix
CO4 – Have Knowledge of development of service product, pricing, promotion and distribution decisions
CO 5 – Understand service process role in service marketing mix and development of blue print
CO 6 – Managing and crafting Physical environment
CO7 – Understanding the role of people in service organization and ways to maintain personnel quality
CO 8 – Describe Service quality concept, dimensions and model

Course Contents :

1. **Understanding Service Markets, Products and Customers**

Services Perspective: service concept, service marketing triangle, and evolution of service marketing, reasons for growth of service sector, difference B/w Goods & services, and I's of services, classifications of services,

2. **Segmentation. Targeting & positioning in services** : meaning and strategies
3. **Service products :** Service products: meaning of service product, service product levels, PLC, new service, service product range, process of new service development, and reasons for success or failure of new services –products, service product elimination.
4. .**Pricing Services and Distributing Services**: price terminologies, costs of service incurred by customers, pricing tripod, pricing objectives, formulating pricing strategy, price tactics. Elements of distribution, methods of distributing services.
5. **Services marketing communication**: Promotional objectives, developing the promotion mix, key aspects of communication for the service marketers.
6. **Extended P's of Service marketing :**1) Designing and managing **service processes**: service blue – print, steps in service process, self reinforcing service cycle.

   2) Crafting the Service Environment: elements of **physical evidence**, kinds of physical evidence, roles of service escape, approaches for understanding services escape effects, guidelines for physical elements strategy.

   3) Managing **People** for Service Environment: service personnel, service personnel quality, maintaining improving services personnel quality & performance, personnel audit, models of customer's as users of services.

7. **Implementing Profitable Service Strategies**

   1) Service quality: impact of service quality, approaches to service quality, dimensions of service quality, models of service quality, SERVQUAL instrument, service productivity.

   2) Designing a service strategy: internal marketing, external marketing, interactive marketing.

Suggested Books:

- Zeithml, V.A. & Bitner, Mary, Jo. (2011).Services marketing. Tata- McGraw- Hill Edition.
- Lovelock,C., Wirtz, J., Chaterjee, J. (2011).Services marketing. Pearson Prentice Hall.
- Shankar, R. (2011). Services marketing. Excel Books.

FT 417MA STRATEGIES & MODELING IN MARKETING

Course Outcome: Student will…….

CO1: Understand concepts and techniques in marketing.
CO2: Acquaint with the duties of a marketing manager.
CO3: Be exposed to development, evaluation, and implementation of marketing management in a variety of business environments.
CO4: Learn strategic and managerial focus and to perform the role of a marketing manager.
CO5: Acquire analytical skills in solving marketing related problems and challenges and be familiar with the strategic marketing management process.

Course Content:

1. Strategic Marketing: Basic concept of strategy, Strategic management, Strategic planning at corporate, SBU and operational level, Strategic marketing, Marketing management, Process of strategic marketing.
2. Strategic analysis: Corporate appraisal, understanding competition, analyzing customers, scanning the environment.
3. Strategy Formulation: Analysis models, portfolio analysis, strategy selection, segmentation, targeting, differentiation and positioning.
4. Market strategy: Dimensions of market strategy, strategies for new, growing, mature and declining markets.
5. 4 P's strategy : Product Strategy: launch, relaunch, Positioning, repositioning, overlap, scope, design, elimination, and new product strategies**.. Pricing Strategies:** Factors affecting prices, initiating and responding to price changes, New product, product mix, Discriminatory pricing strategies, formulating strategies for price leadership. **Distribution strategies:** Channel structure strategy, channel mix, modification, control and management strategies. **Promotion strategies:** Strategies for developing promotional prospective, Promotion mix strategies.
6. Implementation and control of marketing strategies.
7. Marketing models and their applications : science and marketing models, types, purpose and development of models, decision support models, theoretical modeling in marketing Application of models**:** Consumer behavior, Organizational Buying, New product Development and advertising.

Suggested Books:

1. Subhash C. Jain, 'Marketing Planning and Strategy', 'India : Thomson- South Western.
2. Ferrell, 'Marketing Strategy', India: Cengage
3. Lilien, G.L: Kotler Philip and Moorthy, K.S., ' marketing Models' India : PHI
4. Kotler Philip, 'Marketing Management' India : PHI
5. Kotler Philip, 'Marketing Management- a south asian perspective', India: Pearson

FT-417MB LOGISTICS AND SUPPLY CHAIN MANAGEMENT

Course Outcome: Student will…….

CO1: Comprehend advanced quantitative models and methods in logistics and supply chain management and its practical aspects and the latest developments in the field.

CO2: Impart knowledge and understand supply Chain Management and its relevance to today's business decision making.

CO3: Gain the knowledge of possibilities of efficient optimization and management of operation in Logistics Management and also the ability to apply them in the enterprise reality.

COURSE CONTENTS

1. **Introduction to logistics & Supply Chain Management;** Definition, Importance & Scope; Operational objectives of logistics; Logistics functions; Difference between Logistics &SCM; Logistics interface with production and marketing & Value added role of Logistics.
2. **Transportation systems.:** Functions & Principles of Transportation; Participants in Transportation Decision making, Elements in transportation Infra structure, Transportation Planning Parameters (Components of Transportation Decision), Modes of transportation, Modal characteristics & Comparison. Transportation Practices across different modes. Concept of Multimodal Transportation & Containerization
3. **Warehousing and distributing centers & Inventory Control:-** Evolution of strategic warehousing their location; Functions of Warehouse, Economic & Service benefits of warehouse, Principles of Warehouse Design, Warehousing alternatives, Warehousing Strategy(Location, Type, No of warehouses), Inventory management decisions;
4. **Packaging and materials handling:-** Material handling importance & scope, Material Handling Principles, Types of Material Handling Equipments, Unitization & Palletization, Packaging & Labelling, Importance & scope, Types of Packaging, Functions of Packaging.
5. **Innovations in Logistics (Use of Information Technology In Logistics & Supply Chain Management & Logistics future directions):-** Information Functionality in Logistics & SCM, Use of Information Technology in Transportation, Warehousing & Material Handling, Automated Storage / Retrival Systems, Information Directed Systems.
   Dispatch and routing decisions **:-** Challenges posed by routing, Principles of proper routing plan. Routing Decisions & Analysis.
6. **Legal Aspects in Logistics:-** Legal Aspects pertaining to Road, Rail, Water & Air Transport.
7. **International logistics management:**Documentation & Procedures, Logistics system analysis and design; Logistics audit and control, Supply Chain Integration**.**

SUGGESTED BOOKS:

1. Bowersox, Closs, Cooper **"Supply Chain Logistics Management".** The McGraw- Hill Companies.
2. Bhattacharyya S.K. "**Logistics Management**" . S.Chand & Company.
3. Ballau, Renald H, "**Business Logistics Management"**. Englewood Cliffs, New York: Prentice Hall Inc, 1992.
4. Beal K. "**A Management Guide to Logistics Engineering"**. U. S. A. Institute of Production Engineering, 1990.
5. Benjamin S. B. "**Logistics Engineering and Management"**. Englewood Cliffs, New York: Prentice Hall Inc., 1996.
6. Bowersox, D J and Closs, D. J. "**Lotistics Management: A system Integration of Physical Distribution",** New York: MacMillan, 1986.
7. Christopher, M. "**Logistics and Supply Chain Management: Strategies for Reducing Costs and Improving Services"**. London: Pitsman, 1992.
8. James C.J. and Wood, Donald F. "**Contemporary Logistics"**. New York: Macmillan, 1990.
9. Shapiro, R. "**Logistics Strategy: Cases and Concepts",** St.Paul,West, 1995.

FT416MB INDUSTRIAL MARKETING

Course Outcome: Student will…….

CO1: Develop ability to understand industrial markets and relevant industrial marketing strategies.
CO2: Understand cover market structures and demand in business markets.
CO3: Understand the nature and role of industrial markets
CO4: Comprehend the characteristics of industrial markets and buying situations
CO5: Understand how to develop and implement relevant industrial marketing strategies.

COURSE CONTENT:

1. The nature and concepts of industrial marketing. Industrial verses Consumers Marketing, Economic of Industrial Demand. Resellers Marketing.

2. Understanding Industrial Marketing, organizational customers, governmental agencies, institutions, classifying industrial products, characteristics of Organizational Procurement.

3. Industrial Marketing Environment, strategies for managing the Industrial Marketing Environment. Strategic Planning Process in Industrial Marketing.

4. Organizational Buying and Buyer Behaviour: Concept and Model of Organizational Buying Behaviour.

5. Interpersonal Dynamics of Industrial Buying Behaviour. Buying Center Involvement and Interaction Patterns, Joint Decision Making, Conflict and Resolution in Joint Decision Making, the Buying Committee, Supplier Choice and Valuation.

6. Industrial Market Segmentation, Basis for Segmenting Industrial Market, Target Marketing and positioning. Business Pricing: Price Determinants, Pricing Decisions.

7. Formulating Channel Strategies: Marketing Channel Participants, Physical Distribution and Customer Service, Formulating and Marketing Communication Person Selling, Advertising, Sales Promotion and Publicity.

SUGGESTED BOOKS:

1. Robert R. Reeder, Edward G. Briety and Betty H. Reeder, Industrial Marketing, Analysis, Planning and Control, New Delhi, PHI 2nd Edition.

2. Krishna K. Haviadr, Industrial Marketing, New Delhi, Tata McGraw Hill.

3. Michael H. Moris, Industrial Marketing and Organizational Marketing, New York, MacMillian, 2nd Edition.

FT-419 MB DATA ANALYTICS

Course Outcome: Student will…….

Co1:-Discuss the role of data analytics in quality and performance improvement efforts.
Co2:-. Describe the tools and techniques used for data analytics in Business organizations.
Co3:-. Identify techniques to communicate insights gained from data analysis.

Course Content

Unit -1 Basics of Data Analytics
Understand need of data analytics, application of data analytics, data and types of data, concept of data and information, data analytics and business analytics
Unit -2 Data Analytics Using Advance Excel
Ms Excel formulas, Pivot tables, Graphs, conditional formatting, Lookups, Text, Dates and IF statements, Data Distributions, Correlation and Regression
Unit -3 Reporting types
Difference between reporting and analysis, Reporting tools, Standard report formats, Machine learning, summary reports and frequency tables using base SAS procedures
Unit-4 **Basics of SAS**
Create temporary and permanent SAS data sets, Create and manipulate SAS date values, Use DATA Step statements to export data to standard and comma delimited raw data files, Control which observations and variables in a SAS data set are processed and output
Unit-5 Managing Data using SAS
Investigate SAS data libraries using base SAS utility procedures, Sort observations in a SAS data set, conditionally execute SAS statements, Use assignment statements in the DATA step, Modify variable attributes using options and statements in the DATA step, Accumulate sub-totals and totals using DATA step statements, Process data using DO LOOPS, Process data using SAS arrays
Unit -6 Advance SAS
Demonstrate advanced data set processing techniques such as updating master data sets, transposing data, combining/merging data, sampling data, using generation data sets, integrity constraints and audit trails Reduce the space required to store SAS data sets and numeric variables within SAS data sets by using compression techniques, length statements or DATA step views, Use PROC DATASETS to demonstrate advanced programming skills (e.g. renaming columns, displaying metadata, creating indexes, creating integrity constraints, creating audit trails)
Unit -7 Data Analytics in real-time
Scope and Future of Data Analytics, Banking and Securities Case study(NSE XLS and Predictions),Media and Entertainment Case study(TRP Analysis),Healthcare Providers Case study, Education and Data analytics, Manufacturing and Natural Resources Case Study

Reference Books

1. Mining of Massive Datasets By: Jure Leskovec, Anand Rajaraman, Jeff Ullman Publisher: Cambridge University Press
2.Excel: Formulas & Functions Book by Robert Dinwiddie Publisher: DK Publishing
3. SAS Clinical Programming: by Y. Lakshmi Prasad Publisher: Notion Press

FT-416FA: INTERNATIONAL FINANCE

Course Outcome: Student will…….

CO1: Aquire in depth knowledge of international finance issues, international financing/ investing activities and international financial markets.
CO2: Develop knowledge capability and skills necessary for making sound financial decisions for a multinational firm.

COURSE CONTENTS

1. **Growth & Evolution of International Business:** Historical aspect of international trade and finance, Understanding of various financial crisis and there reasons, World Trade Organisation, Trade Blocs.
2. **International Monetary System:** Need for the system, IMF, World bank, Asian Development bank, other prominent institutions.
3. **Exchange rate regimes:** Gold Standard, Fixed and Flexible exchange rate, Managed float, Currency board, Exchange Rate Regimes in India, LERMS.
4. **International Trade & Balance of payments:** Concept of BOP, Indian BOP crisis and refors, "India's BOP- critical analysis of Present and Past.
5. Foreign Exchange Management: Foreign Exchange Market and Mechanism, Exchange Control Regulations & Role of RBI, Exchange Market Intervention.
6. **Theories of Exchange rates:** Purchasing Power Parity, Interest Rate Parity, Asset Market Models of Exchange Rate Determination, and Short Term Theories of Exchange Rate Determination.
7. **Management of MNC's:** Foreign Direct Investment, Drivers of MNC, Strategic Entry Options to MNC's, Country Risk management Financing Foreign Operations - Sources of Long term finance, ADRs, GDRs, FCBs, Euro bonds etc, International Banking Transactions for Export & Import.

SUGGESTED BOOKS

- International Financial Management, P.G.Apte, Tata McGraw Hill
- Multinational Financial Management, Madhu Vij, Excel Publications
- "International Financial Management", Alan Shapiro
- "Global Finance", Eng, Lee, Maur, Addison Wesley Ltd.
- "Global Corporate Finance", Keith Pilbeam

FT-419FA-TAXATION FOR MANAGERS

Course Outcome: Student will…….

CO1: This course will enable the students to understand the tax provisions related to individual and companies and compute the tax liability.

Course Contents:

Unit 1: Introduction: Definition of Income, Casual Income, Agricultural Income, Person, Assessee, Previous year, Assessment year, Gross Total Income, Total Income; Exempted Income; Heads of Income, Residential Status & Tax Liability.

Unit 2: Income from Salary: Meaning & definition Different forms of Salary Allowances, Perquisites Valuation of allowances & perquisites. Valuation of allowances & perquisites. Provisions regarding Provident Fund, Entertainment Allowances, Professional Tax, computation of income from salary.

Unit 3: Income from House Property: Introduction & Important provisions, Types of House Property. Determination of Gross Annual Value, Municipal Tax & Deductions u/s 24.Treatment of unrealized rent & Vacancy period. Computation of income from house property for individual assesse.

Unit 4: Corporate Taxation: Corporation tax, Tax Planning, Tax Evasion, Tax Avoidance, Tax Management, Dividend Tax, Indian Company, Foreign Company. Vodafone Case.

Unit 5: Computation of Total Income and Tax Liability of Companies: Income from business, capital gain, income from other sources, Gross Total Income, Deductions from Gross Total Income, computation of Total Income. Introduction to MAT and Dividend Distribution Tax.

Unit 6: Special Tax Provisions: Tax provisions in respect of Free Trade Zone and Special Economic Zone, Tax provisions in respect of Infrastructure Development, Tax provisions in respect of Backward Areas, Amalgamation related tax issues.

Unit 7:Tax Payment: Tax deduction at source, Tax collection at source, and Advance payment of tax.

Suggested Books:-

1. Direct Taxes Planning and Business Tax Procedure by V.K. Singhania
2. Corporate Tax Planning and Management by H.C. Mehrotra
3. Students' Work Book on VAT and Service Tax by V. S. Datey
4. Indirect Taxes by H.C. Mehrotra
5. Indirect Taxes by V.S. Datey
6. Study Material published by ICSI, Financial Dailies and journals like Business Standard, The Economic Times and Financial Express, Economic and Political Weekly.

FT-418FA: PROJECT FINANCE

Course Outcome: Student will…….

CO1: Develop understanding about project and project finance, its necessary elements, why it is used, how it is used, its advantages and its disadvantages.

CO2: Be able to identify projects that meet the essential criteria for a project financing and know how to create the structure for a basic project financing.

CO3: Identify various sources of financing and learn making Financial estimation and projection for projects

CO3 Understand various risk elements in project finance

COURSE CONTENTS

1. Overview of Project Management I:

Meaning and characteristics of a project; Project planning – Tools of project planning, Gantt chart, Concepts of networking, Hierarchy of charts, prerequisite of successful project implementation.

2. **Overview of Project Management II:**

Generating and screening of project ideas; overview of market, demand and technical analysis. Numerical Problems/Case Study

3. **Project Finance Introduction:**

Meaning and common features of project financing in India, Difference with corporate financing, Project finance why, Structure of project finance, advantage and disadvantage of project financing.

4. **Sources of Project Financing:**

Structuring the Project Vehicle; Key Sponsor Issues; Sources for financing a project- Equity, Developmental loan, Subordinated loans, Senior debt, Syndicated loans, World Bank group financing sources, Export credit agencies, Bonds, Institutional lenders, Lease and Hire purchase Financing, Vendor financing of equipment, Supplier financing, Host government; Public private Partnership in India; Guarantee; Insurance issue; Case Study

5. Estimation of Profitability of Projects:

A review to Time Value of Money, Investment Criteria for Project Decisions, NPV, Benefit Cost Ratio, Internal Rate of Return, etc., Multiple Projects and Constraints, Special Decision Situations, Numerical Problems/Case Study.

6. **Financial Estimates and Projections:**

Overview of Cost of capital and weighted average cost of capital (WACC) concepts, Numerical Problems/Case Studies on weighted average cost of capital for projects; Project Elements and basic principles of Cash flow estimation of project, Numerical Problems/Case Study; Profitability Projections (Estimation of working results), Numerical Problems/Case Study.

7. Project Risk Analysis: Sources of risk, Project finance participant risk, Sensitivity analysis, Scenario analysis, and Break Even Analysis, Numerical Problems/Case Study.

SUGGESTED BOOKS

- "PROJECTS" Planning Analysis, Selection, Financing, Implementation, and Review by Prasanna Chandra, Tata Mc Graw Hill Publishing Company Ltd., Latest Edition.
- 'Introduction to Project Finance' edited by Andrew Fight, Butterworth-Heinemann an imprint of Elsevier, Linacre House, Jordan Hill, Oxford OX2 8DP 30 Corporate Drive, Burlington, MA 01803
- "Project Management" by Vasant Desai, Himalaya Publishing House.

FT-416FB: BANK MANAGEMENT

Course Outcome: Student will…….

CO1: Identify the various functions operations and activities of banking institutions.
CO2: Examine and apply basic finance concept to management of Indian banking institutions.
CO3: Able to evaluate performance of Indian banks.
CO4: Understand basic of capital, lending, deposits of Indian banks.

COURSE CONTENTS

1. Bank's role as financial intermediaries, Basic Principles of Banking, Some Important **Legal Provisions** Relevant for Bankers.

2. **Evaluation of Bank Performance:** Introduction and analysis of financial statements of banks operating in India. Non-interest incomes and non-interest expenses in Indian banks. Key performance indicators for Banks CAMELS Ratings, alternative models of bank performance.

3. **Bank Customer Relationship:** Bank customer, Forms of bank customer relationship. Types of customer and their accounts. Bank's duties and rights, Termination of bank customer relationship.

4. **Sources of Bank Fund I-Deposits and Non Deposits:** Basic Concepts, types of Deposits, Deposit insurance, Deposit pricing, Non-deposit sources. Nomination facility of deposit accounts. Reserve requirement and computation of NDTL for banking system in India, Non deposits sources for banking system in India**.**

5. **Source of Bank Fund-II Capital:** Function of bank capital, Bank capital standards, Basel Committee.

6. **Use of Bank Fund-I Lending:** Purpose, security and modes of credit delivery, Broad steps to credit analysis, risk classification criteria, Fixed vs floating rate, Legal Aspect of Lending. Prudential norms, Loan sales.

7. **Use of bank fund II-Investment:** Basic concepts, VaR, Banks investment portfolio in India.

SUGGESTED BOOKS

- "Management of Banking" - S. Scot McDonald and Timothy W. Koch, Thomson.
- "Management of Banking and Financial Services" Justine Paul and Padmalatha Suresh, Pearson Education.
- "Commercial Bank Management" Kanhaiya Singh , McGraw Hills Education
- "Bank Management and Financial Services" Peter Rose and Sylvia C Hudgins, McGraw Hills Education
- "Financial Institutions and Markets" L.M Bhole, Tata Mc Graw Hill Publishing Company, New Delhi.
- "Bank Financial Management" S N Swastikar, Taxmann Publication Pvt. Ltd.

FT-417FB: STRATEGIC FINANCIAL MANAGEMENT

Course Outcome: Student will…….

CO1: Enhance the understanding of the fundamental concept of managing financial aspect of organizations.
CO2: Develop systematic and efficient knowledge of financial management that can be applied in practice.
CO3: Be able to make financial decisions and resolving financial problems.
CO4: Be able to look at ways that human resources can make a direct impact on a company's growth.
CO5: be able to adopt a strategic approach to developing and retaining employees to meet the needs of the company's long-term plans.

COURSE CONTENTS

1. **Financial Policy & corporate Strategy** , Recent Trends and Practices in Strategic Finance, Role of CFO.
2. **Advanced Capital Budgeting Strategies**, Capital Budgeting under Risk & Uncertainty, Sensitivity Analysis, Methods of selection of projects, Capital Budgeting under inflation, Diversification Strategies.
3. **Corporate Dividend Decisions**: Practical Considerations in Dividend policies, Forms of Dividend, Rules & Legal interpretations, Various Strategy & Theories on Dividend policies.
4. **Financing Decisions:** Strategic Evaluation of various sources of long term finance, Startup Financing – Sources, issues and challenges.
5. **Short term financing decisions -** Working Capital Strategies of a firm, Comparing Alternate sources of working capital – Bank financing, Inter corporate deposits, commercial papers and other money market instruments.
6. **Business Valuation** – Approaches of valuation- Income Approach, Market Approach, Asset Based Approach, EVA.
7. **Restructuring Strategies**: - Financial Distress and reorganization, Mergers, Acquisitions, Amalgamations, Reverse Mergers and Turnaround strategies of a corporate firm.

SUGGESTED BOOKS

- "Mergers & Acquisition", – R. Machiraju
- "Financial Management", - Prasanna Chandra
- "Corporate Finance & Investment", – R. Pike & Node
- "Finance : A management guide for managing company funds ad profit", – I.M. Pandey
- "Financial Decision", - Hompton

FT-419 FB DATA ANALYTICS

Course Outcome: Student will…….

Co1:-Discuss the role of data analytics in quality and performance improvement efforts.
Co2:-. Describe the tools and techniques used for data analytics in Business organizations.
Co3:-. Identify techniques to communicate insights gained from data analysis.

Unit -1 Basics of Data Analytics

Understand need of data analytics, application of data analytics, data and types of data, concept of data and information, data analytics and business analytics

Unit -2 Data Analytics Using Advance Excel

Ms Excel formulas, Pivot tables, Graphs, conditional formatting, Lookups, Text, Dates and IF statements, Data Distributions, Correlation and Regression

Unit -3 Reporting types

Difference between reporting and analysis, Reporting tools, Standard report formats, Machine learning, summary reports and frequency tables using base SAS procedures

Unit-4 **Basics of SAS**

Create temporary and permanent SAS data sets, Create and manipulate SAS date values, Use DATA Step statements to export data to standard and comma delimited raw data files, Control which observations and variables in a SAS data set are processed and output

Unit-5 Managing Data using SAS

Investigate SAS data libraries using base SAS utility procedures, Sort observations in a SAS data set, conditionally execute SAS statements, Use assignment statements in the DATA step, Modify variable attributes using options and statements in the DATA step, Accumulate sub-totals and totals using DATA step statements, Process data using DO LOOPS, Process data using SAS arrays

Unit -6 Advance SAS

Demonstrate advanced data set processing techniques such as updating master data sets, transposing data, combining/merging data, sampling data, using generation data sets, integrity constraints and audit trails Reduce the space required to store SAS data sets and numeric variables within SAS data sets by using compression techniques, length statements or DATA step views, Use PROC DATASETS to demonstrate advanced programming skills (e.g. renaming columns, displaying metadata, creating indexes, creating integrity constraints, creating audit trails)

Unit -7 Data Analytics in real-time

Scope and Future of Data Analytics, Banking and Securities Case study(NSE XLS and Predictions),Media and Entertainment Case study(TRP Analysis),Healthcare Providers Case study, Education and Data analytics, Manufacturing and Natural Resources Case Study

Reference Books

1. Mining of Massive Datasets By: Jure Leskovec, Anand Rajaraman, Jeff Ullman Publisher: Cambridge University Press

2.Excel: Formulas & Functions Book by Robert Dinwiddie Publisher: DK Publishing

3. SAS Clinical Programming: by Y. Lakshmi Prasad Publisher: Notion Press

FT417 HA INDUSTRIAL RELATIONS AND LABOUR LAW

Course Outcome: Student will…….

CO1: Acquaint with various rights and benefits available to the workmen under the legislations.
CO2: Learn the importance of the maintenance of Industrial Peace and efforts to reduce the incidence of strikes and lockout and industrial strike are to be emphasized.
CO3: Comprehend the multidimensional complexities of industrial relations to enable him to develop the right perspective of this delicate responsibility to deal with union constructively.

Course Contents

1. **Industrial Relations in India**: Overview and Appraisal, Workers Participation in Management (WPM): Meaning, Objectives, Essential Conditions, forms, Reasons for Limited Success and Suggestions for Improvement, WPM in India, Collective Bargaining: Meaning, Functions, Process and Prerequisites.
2. **Industrial Employment**: Concept, Standing Orders Act, 1946, Industrial Disputes Act, 1947.
3. **Trade Unions**: Meaning, Functions, Problems, Trade Union Movement in India and Trade Union Act, 1926
4. **Factories Act**, 1948.
5. **E.S.I.C. Act,** 1948
6. **Payment of Gratuity Act**, 1972,
7. **Contract Labour (Regulation and Abolition) Act**, 1970

Suggested Books

1. R. C. Chawla and K.C. Garg, "Industrial Law**",** Ludhiana, Kalyani Publishers, 1993.
2. P.L. Malik, "Industrial Law**",** Lucknow, Eastern Book Co., 1995.
3. J.K. Bareja, "Industrial Law**",** New Delhi, Galgotia Publishing Co., 2001.
4. M.Y. Pylee and George Simon, "Industrial Relations and Personnel Management", New Delhi, Vikas Publishing House, 1996.
5. P Subba Rao, "Essentials of Human Resource Management and Industrial Relations: Text, Cases and Games", Mumbai, Himalaya, 2000.
6. S.C. Shrivastava, "Industrial Relations and Labour L**aws**", New Delhi, Vikas Publishing House, 1994.
7. Jerome Joseph, "Industrial Relations: Toward A Transformational Process Model", New Delhi, Global Business Press, 1995.

FT418HA ORGANISATION DEVELOPMENT

Course Outcome: Student will…….

CO1: Comprehend importance of Organization Development, and to offer insights into design, development and delivery of OD program.
CO2: Acquire knowledge and skills in solving organizational problems in order to bring improvement in performance in organization.
CO3: Develops the capability to see organizational issues from a number of perspectives with many possible solutions.

Course Contents

1. Introduction: Definition, History, Assumptions, Values and Beliefs in O.D, Organization Development & Transformation
2. Theory and Management of OD: Foundations of OD, OD Process, Action Research and OD.
3. OD interventions: Overview, Types, Team interventions, inter- Group interventions.
4. Comprehensive and Structural interventions. Choosing the Depth of Organizational Intervention.
5. Issues and Considerations in OD: Consultant-Client Relationships, System Ramifications, and Power- Politics.
6. Emerging Trends in OD with special emphasis on future organizations.
7. Research on OD, Case studies in OD

Suggested Books:

1. Wendell L. French and Cecil N. Bell Jr., "Organization Development" New Delhi, Prentice Hall.
2. Don Harvey and Donald R. Brown, "An Experiential Approach to Organizational Development", New Jersey, Prentice Hall Inc.
3. Wendell L. French Cecil H Bell, Jr., Robert A. Zawaski. (Eds.), "Organizational Development and Transformation: Managing Effective Change", Illinois: Irwin Inc., 1994.

FT 416HA PERFORMANCE PLANNING AND APPRAISAL

Course Outcome: Student will…….

CO1 The goal of this course is for students to effectively implement and manage a performance management system in support of the strategic goals of the organization.
CO2 To help the students to comprehend what is meant in an organization b performance and how its planning is important in an organization with respect to attaining and maintaining a contented work force for the larger objective of having a competitive edge in the industry.

Course Content:

1. Overview of Performance Planning and Appraisal

2. New objectives of Performance Appraisal

3. Purpose of Performance Appraisal, Uses of Performance Appraisal

4. Designing of Performance Appraisal System, Steps of Performance Appraisal Process, Essentials of Good Performance Appraisal System

5. Methods of Performance Appraisal

6. Performance appraisal in a government organization

7. Performance appraisal in a private organization

Suggested Books:

- Organization Behavior by Robbins
- Personnel / Human Resource Management by De Cenzo and Robbins
- Handbook on Organizational Performance – Johnson and Redman
- Designing and Managing HR Systems- Pareek and Rao.

FT 416HB INTERNATIONAL HRM

Course Outcome: Student will…….

CO1: Acquire knowledge and competencies needed for these professionals to deal effectively with the challenges of an international workforce.
CO2: Disseminate best practice methodologies for international human resource management.
CO3: Be able to understanding of the role of Human Resources management (HRM) in international contexts.

COURSE CONTENTS:

1: Foundation and challenges of international HRM, difference between domestic HRM and International HRM (IHRM)

2:Global view - I HRM: Issues in recruitment and Selection, Training and development in context of globalization, Labor relation in Global context, HRM in cross culture context

3:Globalization and quality management, Competition in international environment.

4: Performance management and Compensation, Level of Knowledge: application knowledge, Performance management: factors associated with individual performance and appraisal –criteria used for performance appraisal of international employees-appraisal of host country nationals, Compensation: Objectives of international compensation-approaches of international compensation.

5: Expatriation and Repatriation, Level of knowledge: Understanding and applying, Expat failure- Causes for failure, Repatriation process.

6: Strategic approach to HRM, Integrating HR strategies with corporate and functional trategies

7: International HR in strategic decisions, International HR strategies

SUGGESTED BOOKS:

1. Internationalization the people dimension – by Stephen J Porter
2. Managing HR in the 21st century – by E.E.Koffek , R N Block
3. International Management Behavior- by Lane DI stfalo and Maznevski
4. Managing Human Resources: Through Strategic Partnerships (Managing Human Resources Through Strategic Partnerships) -by Susan E. Jackson, Randall S. Schuler
5. Managing Human Resources By Wayne F. Cascio
6. Human Resource Management: A Strategic Approach- by William P. Anthony, , K. Michelle Kacmar, Pamela L. Perrewe.

FT 418HB HR BASED BUSINESS PROCESS AND TRANSFORMATION

Course Outcome: Student will…….

CO1: Create fit for purpose people functions by aligning HR and business strategy.
CO2: Understand the appropriate structure, capabilities, and systems in place that enables HR scholars to deliver real value to the business outside.
CO3: Successfully build HR capabilities that drive scalable and sustainable business value.

COURSE CONTENTS:

1. **Innovation and Creativity:** Theories of innovation and creativity, managing people side of motivation, resistance to motivation, the creative process, releasing creativity, creative techniques of problem solving, the creative environment, creative organization, creativity training, introduction to learning organizations, Architecture of Learning Organization.
2. **Team Building:** Redesigning Work, Developing Teams, Building, Teams Structure and Skills, managing Disruption and Conflict, Improving work process and work flow, Appraising Team Performance, Leading High Performance Teams.
3. **Total Quality Management:** History and Philosophy of TQM, TQ as a System, Step by step TQM Implementation Process, ISO 900 and ISO 4000 process Implementation and obtaining Certification, Malcom Baldrige Award criteria, Demings Award, Rajiv Gandhi Quality Award.
4. **Basic HR issues in TQM:** Leadership Vision and Continuous Process of improvement, Kaizan, performance appraisal and TQM, People Capability Maturity Model (PCMM), Quality HR Practices.
5. **Business Process Re-Engineering:** Basic Concepts, Process Mapping, Work flow Mapping, Effectively Applying BPR in the Organizations.
6. **Management Of Change:** Theories of Change, Leading Change, Resistance to Change, Change Process, Visioning, HRM and Culture.
7. **Knowledge Management:** Meaning, Application, Creating Knowledge Organization, Role of Chief Knowledge Officer in Organization.

SUGGESTED BOOKS:

1. Pradip N. Khandwala, Fourth Eye: "Excellence Through Creativity", Wheeler Publishing, New Delhi
2. Knoues B Stephen "Human Resource Management Perspective on TQM: Concepts and Practices, Milwaukee Kilsconsin, ASQC Quality Press latest edition, 1996.
3. Robert A. Pato an James Mccalman, "Change Management: A Guide to Effective Implementaton" New Delhi, Response Books, 2000.

FT-419 HB DATA ANALYTICS

Course Outcome: Student will…….

Co1:-Discuss the role of data analytics in quality and performance improvement efforts.
Co2:-. Describe the tools and techniques used for data analytics in Business organizations.
Co3:-. Identify techniques to communicate insights gained from data analysis.

Unit -1 Basics of Data Analytics

Understand need of data analytics, application of data analytics, data and types of data, concept of data and information, data analytics and business analytics

Unit -2 Data Analytics Using Advance Excel

Ms Excel formulas, Pivot tables, Graphs, conditional formatting, Lookups, Text, Dates and IF statements, Data Distributions, Correlation and Regression

Unit -3 Reporting types

Difference between reporting and analysis, Reporting tools, Standard report formats, Machine learning, summary reports and frequency tables using base SAS procedures

Unit-4 **Basics of SAS**

Create temporary and permanent SAS data sets, Create and manipulate SAS date values, Use DATA Step statements to export data to standard and comma delimited raw data files, Control which observations and variables in a SAS data set are processed and output

Unit-5 Managing Data using SAS

Investigate SAS data libraries using base SAS utility procedures, Sort observations in a SAS data set, conditionally execute SAS statements, Use assignment statements in the DATA step, Modify variable attributes using options and statements in the DATA step, Accumulate sub-totals and totals using DATA step statements, Process data using DO LOOPS, Process data using SAS arrays

Unit -6 Advance SAS

Demonstrate advanced data set processing techniques such as updating master data sets, transposing data, combining/merging data, sampling data, using generation data sets, integrity constraints and audit trails Reduce the space required to store SAS data sets and numeric variables within SAS data sets by using compression techniques, length statements or DATA step views, Use PROC DATASETS to demonstrate advanced programming skills (e.g. renaming columns, displaying metadata, creating indexes, creating integrity constraints, creating audit trails)

Unit -7 Data Analytics in real-time

Scope and Future of Data Analytics, Banking and Securities Case study(NSE XLS and Predictions),Media and Entertainment Case study(TRP Analysis),Healthcare Providers Case study, Education and Data analytics, Manufacturing and Natural Resources Case Study

Reference Books

1. Mining of Massive Datasets By: Jure Leskovec, Anand Rajaraman, Jeff Ullman Publisher: Cambridge University Press

2.Excel: Formulas & Functions Book by Robert Dinwiddie Publisher: DK Publishing

3. SAS Clinical Programming: by Y. Lakshmi Prasad Publisher: Notion Press

DEVI AHILYA VISHWAVIDYALAYA, INDORE

(Formerly University of Indore) , NAAC "A" Grade

State University of Madhya Pradesh, India

International Institute of Professional Studies

I I P S

D A V V

International Institute of Professional Studies

Syllabus
Of
Master of Business Administration (Tourism Administration) (2YDC)

Academic Session : 2018-20

THE DIRECTOR DESK

Dear Scholar,

Welcome to one of the most prestigious, academic institution in central India offering professional education in Management, Computer Science and Commerce Streams. It has state of art infrastructure, pool of multi discipline faculty and devoted staff that creates a conducive environment for academic excellence and holistic development of yours, paving the way for your bright career prospects. Team IIPS looks forward to contribute towards your successful future life.

Team IIPS-MANAGEMENT

Dr. Anand K. Sapre, Professor, Director Ph D,MBA	**Dr. B.K. Tripathi, Professor** Ph.D (Mgt), MBA(HR), Ph.D (Chem), M.Sc (Chem)	**Dr. Yamini Karmarkar, Reader,** Ph D, FDP-IIMA, MMS
Dr. Geeta Sharma, Reader **Ph D , MBA (Finance), PGDPM&IR**	**Dr. GeetaNema, Reader** Ph D , MBA	**Dr. Jyoti Sharma, Reader** Ph.D., MBA (HR), M.A.(Psy), PGDCABM
CS. Dr. Manish Sitlani, Reader Ph D , ACS, MBA, M Com , LLB (Hons),UGC NET	**Dr. Preeti Singh, Reader** Ph.D.,MBA, B.Ed(DE)	**Dr. Suresh C. Patidar, Reader,** Ph D, MBA, M.Com, CS Inter, UGCNET, LLB(Hons)
Dr. Ravindra Yadav, Sr Lecturer Ph D , FDP-IIMA,MBA, DEE	**Dr. Manminder S. Saluja, Sr Lecturer** Ph D (Economics), M Phil, MA	**Dr. Anshu Bhati, Sr Lecturer** PhD, MBA(APR)
Dr. Pooja Jain, Sr Lecturer PhD, MBA(APR)	**Dr. Sujata Parwani, Sr Lecturer** Ph.D. (Economics) , M.A., M.Phil	**Dr. Kapil Jain, Sr. Lecturer** PhD(Mgt), MBA(Fin), M Phil., M Com.
Dr Surendra Malviya, Lecturer Ph D, MBA (E Com)	**Dr Muskan Karamchandani, Lecturer,** PhD, MBA (MS)	**Dr. Gaurav Purohit, Lecturer** Ph D , MBA (Tourism)
Dr. Nirmala Sawan, Lecturer M Sc, Ph D (Statistics)	**Dr. Shilpa Bagdare, Lecturer** PhD, MBA(Mktg)	**Dr.Navneet Kaur Bhatia,Lecturer** Ph D, MBA (Finance)
Dr. Prerna Kumar, Lecturer, PhD, MBA(Mktg)	**Mr. Naresh Dembla, Lecturer** ME (Comp Sc Engg), MBA, BE	**Dr Shikha Pandey, Lecturer** Ph D, MBA(Tourism)
Dr. Jyoti Jain, Lecturer Ph.D., MBA, MA	**Dr. Neha Chouhan, Lecturer** PhD, MBA	**Mr Ravi Bunkar, Lecturer** MBA (Mktg)
Ms. Monalisa Khatre, Lecturer MBA (Mktg)		

MrYogendra Singh Bawal, Network Administrator Incharge, Administrative Officer M Sc(CS), M Sc. (Elex & Comm.), CCNA	**Dr Suresh Patidar,** Incharge, Placement Officer Ph D, MBA, M.Com, CS Inter, UGCNET, LLB(Hons.)
Dr. Kapil Jain, Ph.D.(Mgt),MBA(Fin), M Phil, M Com. Program Officer, National Service Scheme (NSS) Coordinator, Red Ribbon Club, MPSACS Warden, JN Boy's Hostel	**Dr. Sujata Parwani**, Ph.D. (Economics), M.A., M.Phil, Program Officer, National Service Scheme (NSS)

DAVV at a Glance

There are twenty seven teaching departments offering undergraduate, post-graduate and research programs in sixteen Faculties. It is amongst the first few Universities in the country to introduce innovative and integrated courses in the area of science, engineering, technology, management, law and media. The university has 270 affiliated colleges in addition to University teaching departments and centers. The University provides and nurtures research environment for promoting high quality original research. It offers Ph.D. and M. Phil. Programs in all the subjects**.**

The Hon'ble Governor of the State is the Chancellor of the University. The University functions as per Act, Statutes, Ordinances and Regulations. The Registrar, Examination Controller and Finance Controller of the University assist the Vice Chancellor in administrative, examination and financial matters. The University has duly constituted bodies - Executive Council, Academic Council, Boards of Studies, Finance and other committees for decisions on major academic, administrative and financial matters.

The University is prepared to embrace future challenges, explore new horizons and keep moving ahead on the path of excellence, innovation and enlightenment.

About IIPS

International Institute of Professional Studies (IIPS), a pioneer institute under Devi AhilyaVishwavidyalaya DAVV was established in 1991 to provide a new dimension to professional education. It has emerged as one of the best management schools of Central India. The Institute is located in the sprawling Takshashila campus of the University surrounded by lush green environment. The Institute offers following courses

1. Master of Business Administration (Management Science) (2YDC)
2. Master of Business Administration (Management Science) (5YDC) Integrated Programme
3. Master of Business Administration (Advertisement and Public Relations) (2YDC)
4. Master of Business Administration (Tourism Administration) (5YDC) Integrated programme
5. Bachelor of Commerce (Hons.) (3YDC)
6. Master of Business Administration (Entrepreneurship) (2YDC)
7. Master of Business Administration (Tourism Administration) (2YDC)
8. Master of Computer Application (6YDC) Integrated Programme
9. Master of Technology (Information Technology) (5YDC) Integrated Programme
10. Doctor of Philosophy (PhD) in Management
11. Doctor of Philosophy (PhD) in Computer Science

The lush green campus of the IIPS Includes an academic complex of classrooms, seminar room, an auditorium, a well-equipped library, computer labs and development center and administrative offices. The classrooms are specious and well equipped.

IIPS has one of the finest computing environments among the management Institutions in Central India. The institute provides internet facility through Wi-Fi to the students in campus.

About MBA (Tourism)

MBA (T) is a two years post graduate program of IIPS. Tourism is the world's largest industry and one of the objectives of tourism development is economic gain. This is not a narrow matter of private sector providers of tourism services making a profit. In economic terms the Travel and Tourism industry is able to do three key things:

1. It gives vigor to economics
2. It offers people jobs and career prospects.
3. It stimulates development of the country.

It does this through:

1. Creating employment Direct and indirect.
2. Increasing foreign currency earnings.
3. Increasing visitor numbers and visitors spending within the local economy.
4. Increasing income for commercial operators.
5. Economic development and regeneration.

The environmental objective of Tourism is to safeguard the environment by preserving the habitat and regeneration and conservation of environment.

The socio cultural objectives of tourism is to promote the understanding of different cultures and also o provide community facilities as well as tourist facilities to the tourists coming from different areas of the world.

This course aims at fulfilling the above objectives of Tourism so that the students can have more knowledge and expertise in this particular sector.

Name of the Programme: MBA (TA) 2years

PSO1: Investigate the impact of tourism planning and development on economic, sociocultural and physical environments.
PSO2: Look at business from the point of view of both the consumer and the service provider.
PSO3: Explore issues that concern host-visitor relationships.
PSO4: Study the major processes within marketing through case studies and class discussion.
PSO5: Develop Tourism professional ,well worse with industry.
PSO6: Develop leadership for being future managers.
PSO7: Apply knowledge of leadership and management theories and practice to solve business problems.
PSO8: Creating Awareness about Eco –Tourism, Rural Tourism, Golf Tourism, and other upcoming fields in Tourism
PSO9: Promoting OJT for students to have a balance between industry and Academics.
PSO10: Develop an integrated view of managerial problems and perspectives in communication industry through advanced knowledge of core issues.

MBA (T) 2 Years
Subject Scheme

Subject Code	Subject Name
TA-101	Fundamentals Of Tourism
TA-102B	Fundamentals Of Management
TA-103C	Quantitative and Statistical Techniques
TA-104B	Geography Of Indian Tourism
TA-106C	Principles Of Tourism Marketing
TA-109B	Fundamentals Of Computer Application
TA-112B	Accounting And Finance For Tourism
TA-114	Internship/Seminars/Presentation

Code	Subject Name
TA-201A	French- I
TA-205	Tourism Product of India
TA-211	Research Methodology
TA-213	Business Communication and Personality Development
TA-214	Geography of International Tourism
TA-215	Travel Agency Management
TA-215A	Consumer Behavior

Code	Subject Name
TA-301A	French II
TA -304	International Ticketing
TA-307	Hotel Operations and Management
TA-313	Airline Management- II
TA-314	Organizational Behavior
TA-315	Service Marketing Strategies
TA-316	Cargo Management

Code	Subject Name
TA-401	French -III
TA-404	Foreign Exchange Management
TA-408	Entrepreneurship
TA-410	Conference ,Convention and Event Management
TA-411	E- commerce for Tourism
TA-412/TA-405B	Decision Making Skills/MRP

International Institute Of Professional Studies
Devi Ahilya Vishwavidhyalaya(DAVV)
MBA (T), Sem-I

Curriculum for MBA (Tourism) I-Semester

Subject Code	Subject Name
TA-101	Fundamentals Of Tourism
TA-102B	Fundamentals Of Management
TA-103C	Quantitative and Statistical Techniques
TA-104B	Geography Of Indian Tourism
TA-106C	Principles Of Tourism Marketing
TA-109B	Fundamentals Of Computer Application
TA-112B	Accounting And Finance For Tourism
TA-114	Internship/Seminars/Presentation

Examination:

Internal Assessment: 40 marks

Internal Assessment I : 20 marks
Internal Assessment II : 20 marks
Internal Assessment III : 20 marks

} Best OF Two

End- Semester Examination: 60 marks

TA-101 : Fundamentals Of Tourism

Course Outcome

CO1) The main outcome of this course is to develop a practical prospective on the travel and tourism industry.
CO2) The knowledge of this course will help students understand the travel and tourism industry.
CO3) To Know about travel terminologies with there reference in Industry.

Course Contents:

1. **Concepts, definitions, origin and development**. Types of tourism, Forms of tourism: domestic, international, regional, inbound, outbound, Tourism net work and components of tourism, Tourist motivators, Classification of tourism and travelers

2. **Tourism Industry and its structure**: attractions, accommodation, transportation, F&B, shopping, entertainment, infrastructure hospitality, Presents trends in domestic and global tourism.

3. **Assessment of tourism impact on destinations**: Economic, socio- cultural and ecological. Concept of carrying capacity, sustainable tourism development. Emerging areas of tourism: rural, eco, medical, pilgrimage, bollywood, golf etc.

4. **Social and Economic Benefits of tourism**: Benefits, Multiplier Effect, and Factors governing the benefits.

5. **Tourism organizations**: World Tourism Organization (WTO), Pacific Area Travel Association (PATA), World Tourism &Travel Council, (WTTC) Role and function of Ministry of Tourism, Govt. of India, ITDC, FHRAI, IHA, IATA. National and International Organizations related to travel and tourism.

6. **International conventions** held for the development and Planning of travel and tourism

7. **Overview of five year plans** with special reference to 10th & 11th five year plan for tourism development and promotion, National Action Plan- 1992, National Tourism Policy-2002. Threats and Obstacles to tourism

Text References:

a. Manjula Chaudhaary, K.K. Kamara, Tourism Development; Impact & Strategies; Anmol Publications, 2002
b. Goldener, C & Ritchie, B. Tourism Principles, Philosophy, Practices, John Wiley, New York, 2006
c. J.K. Sharma, Tourism Planning and Development; A new Perspective, Kanishka Publishers, 2000
d. Geoper et al, Tourism Principles 7 Practices, Pearson edn., New York, 2006
e. Gellas & Bechenel, International Tourism, Macmillan, London, 2004
f. Seth, P.N. Successful Tourism Management, Sterling Publication, New Delhi
g. Bhatia, A.K. Tourism developments.
h. Negi, Jagmohan, Travel and Tourism, S.Chand & sons
i. Dixit, M. Profiles of Indian Tourism, Royal Book House, Lucknow.

TA-102B: Fundamentals Of Management

Course Outcomes:

CO1) Gain an understanding of the functions and responsibilities of the manager and providing them with necessary tools and techniques to be used in the performance of managerial job.

CO2) Examine the management theory with corresponding opportunities for application of these ideas in real world situations.

CO3) Understand the managerial functions of Assessing, Planning, Organizing and Controlling. Both traditional and edge approaches are introduced and applied.

CO4) Understand the ethical implications of managerial action and inaction.

CO5) This will the help the students in understanding of the dimensions of the management and Human Resource with particular reference to management aspects in India.

CO6) Efforts will also be directed towards developing communication and decision-making skills through case discussions, group discussion, role-playing, presentation and live and theoretical projects and assignments.

Course Contents:

1. **Introduction to Management:** Definition, nature, importance, evolution of management thought, contribution made by Taylor and Fayol, Is managing a science or art? Functions of manager, ethics in managing and social responsibility of managers.
2. **Functions of Management**: Basic functions of management, POSDCORB. Mckinsey's 7's Approach MBO.
3. **Strategies and Policies:** Basic Strategies and policies in Management, TOWS, Portfolio matrix, Porter's strategies.
4. **HR Aspect in Management:** Definitions, concept, Nature and Scope, roles and functions of HR, challenges and latest trends in HR.
5. **Human Resource Planning:** Meaning of Human Resource Planning, Features, Methods and steps in Human Resource Planning, Job Analysis, Job Description, Job Specification, Job Compensation, Recruitment and Selection, Induction and Placement.
6. **Performance Appraisal:** Concept of Performance appraisal, Trends and methods of performance appraisal, potential and performance appraisal.
7. **Training and Development**:Concept, methods, implications of training and development Latest trends in HR, E- HRM.

Text References:

1-Koontz – Principles of Management (Tata McGrew Hill, 1st Edition 2008)

2. Robbins & Caulter – Management (Prentice Hall of India, 8th Edition)

3. L.M. Prasad – Principles & Practices of Management (Sultanchand & Sons , New Delhi)

4. Parag Diwan – Management Principles and Practices (Excel Books, New Delhi)

5. Stoner, Freeman, Gilbert. Jr. – Management (Prenlice Hall of India, 6th Edition)

6. Koontz, weihrich – Essentials of Management (TMH, 5th Edition)

7-Human Resource Management Principles and Practice, P.G. Aquinas, ISBN : 8125918097.Publication Year : 2011,Edition: First Reprint

TA-103C : Quantitative and Statistical Techniques

Course Outcomes:

BY Understanding BUSINESS STATISTICS, students are able to learn, apply the principle and concepts of statistics commercially and are able to take decisions and are able to find:

CO1: How to calculate and apply measures of central tendencies (Mean, median, mode) and measures of dispersion (standard deviation and mean deviation) -- grouped and ungrouped data

CO2: How to apply discrete and continuous probability distributions to various business problems.

CO3: Perform Test of Hypothesis as well as calculate confidence interval for a population parameter for single sample and two sample cases. Understand the concept of p-values.

CO4: Learn parametric (t-test and z-test and also perform ANOVA and F-test) and non-parametric test such as the Chi-Square, kruskalwallis test for Independence as well as Goodness of Fit.

CO5: Compute and interpret the results of Simple and Bivariate Regression and Correlation Analysis, for forecasting

Course Contents:

PART I – BUSINESS STATISTICS

1. **Introduction to Statistics:** Meaning and Definition of Statistics, Scope and Limitations of Statistics, Role of Statistics in Management Decisions.

2. **Introduction to Central Tendencies and dispersion:** Introduction to Mean, Median, Mode, Quartile, percentile, deciles, Mean Deviation , standard deviation, standard error and its applications. Sample and Parameter, Difference between Sample and population Mean

3. **Probability Theory and Probability Distributions:** Introduction to Probability and its business applications , Baye's Theorem, Binomial, Poisson and Normal distributions- their characteristics and applications

4. **Correlation, Regression and Time Series :** Correlation (Karl Pearson's and Spearman's Coefficient), Methods of computing simple correlation and Regression equations, Time Series methods and its application in Business Forecasting .

PART II – MATHEMATICAL AND QUANTITATIVE TECHNIQUES

Cource Outcome:

CO1: Apply the most widely used quantitative techniques in decision making.

CO2: Grasps the wide applicability of quantitative techniques.

CO3:Apply mathematics to technical problems in business management.

CO4: Appreciate the value of mathematical reasoning and analysis in daily life situation.

CO5: Realize the Importance of certain mathematical techniques in getting the best possible solution to a problem involving limited resources.

CO6: Apply quantitative techniques to solve a variety of business problems for cost-benefit analysis

CO7: Use various Operations Research models like LPP, Network analysis, game theory, transportation and assignment models to solve business problems

CO8: Able to take better decisions in their organizations by applying concepts and methodology of various quantitative techniques.

1. **Mathematical Techniques for Business:** Introduction and Business Applications of Arithmetic Progression, Geometric Progression, Harmonic Progression, Simple Interest, Compound Interest, Percentage, Averages, Commission and Ratio and Proportion. Numerical Problems.

2. **Applications of Differentiation, Integration and Matrices**: Applications of differentiation in problems like Maxima and Minima. Applications of Integration in consumer surplus and producer surplus, Solution of simultaneous linear equations using inverse method of matrices, input/output analysis.

3. **Introduction to Quantitative Techniques:** QT-OR Models, Methodology, Role, Scope and its Applications.

4. **Applications of Basic Quantitative Techniques**: LPP and its Elementary Solution by Graphical and Simplex method, Queing Theory; Arrival and service rates (littles formulas L_s, L_q, W_s, W_q) , **:** Introduction to CPM,PERT, Game Theory and their applications, Assignment Problem and its solution by Hungarian Method, travelling salesman problem, Introduction to Simulation and its Applications.

Text References:

1. J. N. Kapur and H. C. Saxena. "**Mathematical Statistics"**, New Delhi, Sultan Chand and Company Ltd., 20th ed., 2001
2. Business Mathematics by Bannerjee, Bs Publications
3. D. C. Sancheti and V. K. Kapoor, "**Statistics: Theory, Methods and Applications",**New Delhi: Sultan Chand and Sons., 2001
4. D.N. Elhance, Veena Elhance and B. M. Aggrawal, "**Fundamentals of Statistics",**Allahabad: Kitab Mahal, 1996
5 R. K. Ghosh and S. Saha, "**Business mathematics and statistics"**.
6 Richard I. Levin and D.S. Rubin, "**Statistics for Management"**, New Delhi: Prentice Hall of India, 2000
7. S. C. Gupta, "**Statistical Methods"**
8. D. C. Sancheti and V. K. Kapoor, "**Statistics: Theory, Methods and Applications",**New Delhi: Sultan Chand and Sons., 2001

TA-104B: Geography Of Indian Tourism

Course Outcome

CO1) Understand the basic concepts of physical and human geography.
CO2) Create awareness of all important tourist destinations across the various states of India.
CO3) Preparing Itinerary using the knowledge of city and destination.

Course Contents:

1. Introduction: Understanding their basic history, geographical locations (w.s.r. to map reading), climatic conditions, itinerary planning, Study of Domestic Airlines, Domestic Airports, Indian Railways Road Routes.

2. North Zone –An overview of the states in the zone (Jammu & Kashmir, Laddakh, Punjab, Uttar Pradesh, Uttarakhand, Himachal Pradesh): Geographical location and condition: places of tourist interest, preparation of itineraries.

3. West Zone - An overview of the states in the zone (Gujarat, Maharashtra, Madhya Pradesh) : Geographical location and condition: places of tourist interest, preparation of itineraries .

4. South Zone –An overview of the states in the zone (Kerala, Karnataka, Tamil Nadu, Andhra Pradesh) Geographical location and condition: places of tourist interest, preparation of itineraries.

5. East Zone – An overview of the states in the zone (Odisha, Bihar, Jharkhand, Chhattisgarh, West Bengal, Sikkim, North-East States) Geographical location and condition: places of tourist interest, preparation of itineraries.

6. Emerging Tourism Destinations in India.

7. Itinerary preparation for domestic (inbound destinations) for various durations.

Text References:

1. Tourism Geography-Philip G.Davidoff. J. Doughlas Eyer.
2. The 21st Century World Atlas.
3. The Oxford School Atlas, 33rd Edition
4. Websites of National and various State Tourism Agencies
5. Travel Magazines like Lonely Planet, Outlook Traveler, National Geographic Traveler, Discover India, India Today Travel Plus, etc.

TA-106C : Principles Of Tourism Marketing

Course Outcome

CO1) Understanding of marketing concepts, theories and practices in the context of Tourism Industry.
CO2) Understand different components of marketing; analyze marketing environment and consumer behavior; design marketing mix for Tourism.
CO3)Be introduced the aspects of marketing including strategic marketing planning, marketing research, product planning and development, promotion planning and pricing
CO4) Understand of the theories and practical application of the marketing mix variables.

Course Contents:

1 – Marketing Fundamentals: Concept, definition and significance of marketing in tourism industry; Basic concept of need and want; demand, product, service, marketing philosophies; Significance of service marketing; characteristics of service marketing and tourism marketing; marketing mix for tourism.

2- Marketing Environment: Analyzing marketing environment for tourism; Marketing environment factors; marketing planning.

3 - Marketing Research: Marketing information system (MIS); Need for research; Understanding marketing research process; Research applications in Tourism Marketing.

4 - Consumer Behaviour: Understanding consumer buying behaviour; Factors influencing the consumer behaviour; Tourist Behaviour and decision making.

5 - Marketing Planning: Market segmentation; Bases for segmenting consumers markets; targeting and positioning.

6 - Marketing Mix for Tourism Industry:

Product: Definition, levels, and types of product; Tourism products and services, Product mix; Product life cycle (PLC); Branding of a tourism product.
Pricing: Definition and factors influencing pricing decisions; major pricing strategies for products of tourism industry.
Place: Role and functions; factors influencing distribution of tourism products, distribution channels, Role of travel agency and tour operators as intermediaries of tourism industry.
Promotion: Marketing communication; IMC; Promotion mix elements - Advertising, Sales promotion, Public relation, Personal selling, Direct marketing, Event marketing.

7- Strategic Issues in Tourism Marketing: Recent trends in tourism;Digital media and tourism marketing; Challenges and opportunities in tourism marketing.

Text References:

- Kotler, P., Bowen, J. & Makens, J., Marketing for Hospitality and Tourism, Pearson Education.
- Chaudhary, Manjula, Tourism Marketing, Oxford University Press.
- Dasgupta, Devasish, Tourism Marketing, Pearson Education.

TA-109B: Fundamentals of Computer Application

Course Outcome

CO1) Understand the basic concepts of computer and its applications.
CO2) Acquire a high degree of proficiency in Windows based applications in various functional areas of management.
CO3: Demonstrate knowledge of generation of computer and input output devices with the block diagram of computer.
CO4: Understanding the types of memories and operating system.
CO5: Understanding the function of MS-Word by using different functions.
CO6: Performing working with MS-Excel.
CO7: Working with MS-PowerPoint including multimedia, graphics and special effect.
CO8: Demonstrate knowledge of internet and service used in internet.

.

Course Contents:

1. Fundamentals of Computer: Block diagram of the computer Input devices, Output devices. Operating systems: Introduction to operating system, Types of the Operating System, MS-DOS - DOS Features, External and Internal Commands, Working with Files, Working with Directories, Managing Disks, Advanced Command Techniques, Troubleshooting in hardwares.

2. WINDOWS: windows operation, File management, Resource location, Managing icons and location, Control manager, Accessories of windows

3. MS – Word (Word Processing): Introduction, Working with Word, Typing and Editing, Formatting Text, Page design and layout, Adding Tables, Using styles, templates and themes, Merging Data and documents, Using Graphs, Advanced features of Word.

4. MS – Excel (Worksheet): Introduction, Working with Excel, Entering Data, Advanced worksheet formatting, Customizing Workplace, Calculation in Worksheets, Adding Charts, Working with lists databases and pivot table, Advanced features of Excel.

5. MS – PowerPoint (Presentation): Introduction, Working with PowerPoint, Adding Text, Expert presentation – building technique, Including Multimedia, graphics and special effects, Customize PowerPoint.

6. MS –Access: Access essentials, Creating and customizing tables, Linking Multiple tables, Using Queries to find and filter data, Designing and using forms, Presenting Data with reports

7. Introduction to Networking and Security: Internet- Definition, Services used in Internet, www, Protocols. Introduction to computer networks, Network -topologies, Network Security, Virus and its types, Issues used in Security of Data.

Text Books

01 Computer and commonsense, Roger Hunt and John Shelly
02 Using MS- office 2000, Woody Leonhard
03 The Computer Guide to MS – Office, Ron Monsfield
04 The Complete ref, office 2000, Stephen L. Nelson
05 Learn DOS in a Day, Stulz.

TA-112B: Accounting and Finance for Tourism

Course Objectives

CO1: Acquaint concepts of accounting and help them to acquire the ability to develop and use the accounting and system as an aid to decision making.

CO2: Develop an insight about the meaning of basic accounting terms related to accounting, business management and finance.

CO3: Identify how accounting serves as a basis for careers, and the tasks associated with various accounting occupations.

CO4: Master the ability to apply the accounting cycle for different types of businesses.

Course Contents:

1. **Fundamentals of financial accounting:** Meaning and definition of accounting, Need and functions of accounting, users of accounting information, importance and limitations of accounting, Relationship of accounting with other disciplines, Accounting Principles- Concepts and Conventions.

2. **Double entry system of accounting I:** Concept and definition, Process of Accounting, various stages of DES accounting: Journal, Concept, Rules of Journalizing, Process of Journalizing, Ledger Posting, Trial Balance, Numerical Problems.

3. **Double entry system of accounting II:** Concept of final Accounts, Preparation of Final Accounts without adjustments, Adjustments in Final A/cs., Concept and necessity, Preparation of Final a/cs. With adjustments, Numerical Problems

4. **Introduction to management accounting and financial statement analysis:** Introduction to Management Accounting, Balance sheet & related concepts, Profit/ Loss account & related concepts, Need, Importance and Limitations of Management Accounting, Difference between Management & Financial Accounting, An overview of Financial Statement Analysis, Objectives, Methods and Importance, Tools and Techniques of Financial Statement Analysis.

5. **Ratio analysis:** Concept, Importance, Assumptions and Limitations, Managerial Uses of Ratios, Numerical Problems.

6. **Fund flow analysis:** Fund Flow Statement; Concept and Importance, Managerial Uses of FFS, Sources and Application of Fund, Preparation of Fund Flow Statement, Numerical Problems.

7. **Cash flow analysis:** Cash Flow Statement; Concept and Importance, Difference between CFS and FFS, Managerial Uses of CFS, Preparation of Cash Flow Statement as per AS 3, Numerical Problems.

Text References:

- Financial A/c. for Management by Ambrish Gupta (Pearson Education),
- Accounting for Managers by M.E. Tukaram Rao (New Age),
- Accounting for Management by Vijayakumar (Tata McGraw Hill Publication)
- Accounting for Management by Dr. Jawaharlal (Himalaya Publication House)

Curriculum for MBA (Tourism) II-Semester

Subject Code	Subject Name
TA-201A	**French- I**
TA-205	**Tourism Product of India**
TA-211	**Research Methodology**
TA-213	**Business Communication and Personality Development**
TA-214	**Geography of International Tourism**
TA-215	**Travel Agency Management**
TA-215A	**Consumer Behavior**
TA-216	**Seminar/Presentation/Internship**

Examination:

Internal Assessment: 40 marks

Internal Assessment I : 20 marks
Internal Assessment II : 20 marks
Internal Assessment III: 20 marks

} Best OF Two

End- Semester Examination: 60 marks

TA – 201A: French - I

Course Outcomes:

CO1) Outcome of this subject is to develop the Linguistic
CO2) Learn basic French grammar and vocabulary
CO3) Communication: Enable students to introduce oneself and converse spontaneously in given social settings.
CO4) Civilization: Introduce some aspects of France, its people and culture.
CO5) Outcome is to emphasize and develop four linguistic skills which further enhance the course: (I) Written and Oral expression (ii) Written and oral comprehension

Course Contents:

1. **Story:** A spring time in Paris and an adventure in Burgundy:
   Lesson 1: Meeting and introducing each other
   Lesson 2: Striking a friendship
   Lesson 3: Expressing one's likes and dislikes
2. Lesson 4: Expressing agreement and disagreement
   Lesson 5: Expressing surprise
   Lesson 6: A country side house
   Lesson 7: Lunch at Broussace
3. **Vocabulary:** Profession and nationalities
   Day-to-day life and hobbies
   Physical and psychological descriptions
   Cardinal numbers
   Lodging and getting food
   Clothes and colors
4. **Grammar:** Definite and Indefinite Articles
   Gender and no. of nouns and adjectives
   Masculine and feminine forms
   Interrogative and negative forms
   Conjugation of verbs in present tense
   Portative articles
   Demonstrative and Possessive adjectives
5. **Phonetics**
   Intonation
   Linking words
   Oral and nasalized vowel sounds
   Semi vowels
6. **Communication**
   Meeting and getting to know each other
   Inviting someone and replying
   Describe people
   Giving order and expressing obligation
   Requesting and ordering
7. **Civilization**
   Paris: Monuments and Public places
   The life of four Parisians from different professions
   The French Region: The Burgundy
   Daily life in countryside

TA- 205: Tourism Products of India

Course Outcomes:

CO1)The main outcome of this course in to expose students to the cultural, natural & historical heritage of India in order to widen their view towards travel and tourism.

CO2)This knowledge will help them in their future as professionals in travel & tourism trade and make India a popular tourism destination

.

Course Content :

1. **Indian Heritage :** Indian Architecture: Temples, Churches, stupas & mosques- their structure, distinguishing characteristics, examples, their present condition, way & means to improve &improve them, Indian Classical Music: (i) Vocal- origin, evolution, styles, ragas, gharanas, instruments, festivals & events, Indian Sculpture & paintings: Origin, history, evolution, characteristics, styles, and examples, Sacred Trees of India, Rites, Customs and Rituals.
2. **Cultures Of India:** Dances of India: Classical Dances, Folk Dances, Dance Drama- history, characteristics of each, Dance festival &events, ways & means to promote, Yoga, Meditation & Ayurved: (i)Yoga-concepts, history, asanas, benefits (ii) Ayurved- history, concepts, characteristics, uses, centers, Religion- History, evolution, (i) Hinduism (ii) Buddhism (iii) Jainism (iv) Sikhism (v) Zoroastrianism (vi) Christianity (vii) Islam.
3. **Specialties of Indian Tourism :** Fairs & Festivals of India, Indian Cuisine, Shopping & Souvenirs, Beaches of India / Beaches Tourism and Island Tourism, World Heritage Sites in India, Famous Trains of India: History, Routes, Importance, Forts and Museum
4. Adventure Sport , Wildlife Sanctuaries & National Parks OF India
5. Eco &Rural Tourism in India.
6. Tribes of India
7. Indian Habitants

Reference Text Book:

1) Tourism Products in India by Prof. I.C.Gupta.

TA-211: Research Methodology

Course Outcomes:

CO1: Understand basic concepts of research, its methodologies and Identify appropriate research topics.
CO2: Select and define appropriate research problem and parameters.
CO3: Prepare a project proposal (to undertake a project)
CO4: Organize and conduct research (advanced project) in a more appropriate manner
CO5: Identify, explain, compare, and prepare the key elements of a research proposal/report/dissertation/ industrial report.
CO6: Demonstrate knowledge of research processes (reading, evaluating, and developing);
CO7: Perform literature reviews using print and online databases;
CO8: Employ American Psychological Association (APA) formats for citations of print and electronic materials;
CO9: Compare and contrast quantitative and qualitative research paradigms.
CO10: Describe sampling methods, measurement scales and instruments and appropriate uses of each;

Course contents:

1.Introduction to Research Methods:

Meaning and purpose of research; objective of research; types of the research; process of research; research methods v/s methodology; research proposal; limitation of research; research terminology-concepts, variables, constructs, operational definitions, propositions & hypothesis, theory, models etc.

2.Research design:

Selecting and defining research problem, Conceptualization, Theoretical framework, creating suitable research design, feature of a good research design and different research designs(exploratory, Descriptive, experimental and diagnostic research).

3.Sampling Design:

Concept of sampling; Sampling terminology; Objective and principles of sampling, Types of sampling, Sampling and non-sampling errors.

4.Data Measurement and Collection

Data type, Measurement scale, Attitude measurement scale, Questionnaire design, Validity and reliability of a research instrument; Method of collecting data and their advantages and disadvantages.

5.Data collection and data preparation: Collection, primary and secondary data, data organization, presentation, planning the data analysis- Distribution of data, Descriptive statistics, graphical representation of facts.

6.Data Analysis Tools: Introduction to SPSS (Statistical Package for the Social Sciences) application; Data Management, Preparation and descriptive analytics using spreadsheet and SPSS. Visualization, exploration and extracting data summary statistics and their interpretation, Hypothesis testing: Review of Concept, methodology, types of errors, important parametric and non parametric tests for single, two and multiple group comparison like-T-test, F-test, ANOVA, MANOVA and tools for studying cause and effects –Corelation, simple linear regression, multiple regression, factor analysis, Cluster analysis

7.Report Writing And Presentation:

Significance of report writing, Steps in report writing, Layout of report, Precaution in writing research reports, Writing bibliography.

Suggested Books:

1. Donald r Cooper and Pamela S Scheindler, Business Research Methods, Tata McGraw Hills
2. K N Krishnaswami, A L Sivakumar and M Mathirajan, Management Research Methodology, Pearson Education.
3. Darren George and Paul Mallery, SPSS for Windows, Pearson Education.
4. Hair etc, Multivariate Data Analysis, Pearson Education.
5. Panneerselvam,R., Research Methodology, Prentice Hall of India Pvt. Ltd.
6. Kothari, C.R., Research Methodology - Methods and Technique, New Age International Publishers

---

TA - 213: Business Communication & Personality Development

Course Outcomes:

CO1: Nurture students into well balanced and positive thinking human beings. Developing students into professionals, who are capable of facing new challenges and becoming the winners in Life.

CO2: Enhancing Communication skills by practicing functions, processes and models.

CO3: Understanding of Effective Communication, Barriers to Effective Communication, order, advice, suggestions, motivation, persuasion, warning, education, raising morale, conflicts and negotiation, group decision making.

CO4: Practicing of various activities using dimensions of Communication- Upward, Downward, Lateral/Horizontal, Diagonal, grapevine, consensus, Channels of Communication- Formal, Informal; Patterns of Communication; Media of Communication-Verbal, Nonverbal.

CO5: Understanding the importance and usage of Listening skills by various interactive session developing students into a perfect personality in Interpersonal Communication like Transactional Analysis, Johari Window.

CO6: Understanding and practicing complete knowhow of Business Correspondence its Layout, planning, inquiries and replies, complaints, follow up, circulars, notices, goodwill letters, applications for employment, Report Writing, Public Speaking: Speeches and presentations, Interviews, Professional use of the telephone.

CO7: Understanding and practising Self Improvement, Developing positive attitudes, Self-Motivation, Time Management, Stress management, Modern Manners for developed personalities.

Course Contents:

1. **Communication:** meaning, nature, definitions, features, processes, models, functions

Objectives of Effective Communication: information, Barriers to Effective Communication, order, advice, suggestions, motivation, persuasion, warning, education, raising morale, conflicts and negotiation, group decision making

2. **Dimensions of Communication:** Upward, Downward, Lateral/Horizontal, Diagonal, grapevine, consensus

3. **Channels of Communication:** Formal, Informal; Patterns of Communication; Media of Communication: Verbal, Nonverbal.

4. **Listening, Interpersonal Communication:** Transactional Analysis, Johari Window

5. **Business Correspondence:** Layout, planning, inquiries and replies, complaints, follow up, circulars, notices, goodwill letters, applications for employment

6. **Report Writing, Public Speaking:** Speeches and presentations, Interviews, Professional use of the telephone

7. **Personality Development Principles:** Self Improvement, Developing positive attitudes, Self Motivation, Time Management, Stress management, Modern Manners

Text Books:

Business Communication: K.K. Sinha
Business Communication: M. V. Rodrigues
The Art of Effective Communication:Margerison

Suggested Readings:

Effective Communication: Asha Kaul
Managing Time: David Fontana
Managing Stress: David Fontana

TA – 214: Geography of International Tourism

Course Outcomes:

CO1) The outcome of this course is to create awareness of all important tourist destination countries and their respective places of tourist interest.

CO2)The students will be exposed to the related travel knowledge like city airport codes and convenient travel routes (air, rail, surface & cruise) with distance and climatic conditions.

CO2) Geography is the basic edifice of tourism. The knowledge of geography shall give an extra edge to the students in designing the itineraries for the travelers, suggesting them various destinations to the clients for their travel etc.

CO4)Basically know ledge of geography shall provide an insight to the students about the destinations o f the world; their climates etc. The study shall enable the students to relate the application of geography in tourism.

Course Contents:

1.Importance of geography in Tourism: Latitude, longitude, international date time, Times zone, Time differences, GMT variations. Major landforms as tourist resources, Elements of weather and climate, Climatic regions of the world in brief, Impact of weather and climate on tourists and destinations, Map Reading and Practical Exercise

2.Leiper's geographical elements of Tourism, Factors affecting global and regional tourist movements; demand and origin factors, destinations and resource factors, Contemporary trends in international tourist movements

3.Aviation Geography: Important tourist circuits and popular Itineraries of selected countries from Middle East, Far East, Asia Pacific and Europe, China and Japan.

4.Popular tourist places and Itenaries of selected countries like China, Singapore, Malaysia, Thailand, France and USA, Far-East (important tourist destinations and their connectivity)

5.Australia & New Zealand & Fiji Islands

6.Africa & South Africa,Russia

7.South Asia- Singapore, Malaysia, Thailand, Hong-Kong and surrounding countries

Suggested Readings:

- A Geography of Tourism - Ronbinson, HA
- The Geography of Travel and Tourism - Burton, Rosemery
- Geography of Travel and Tourism - Boniface B. and Cooper
- Oxford Atlas 31th edition
- Travel Publication like Outlook Traveller, India Today Travel Plus, Travel & Leisure, Lonely Planet Series, Fodder's Travel Series, Travel Trenda Today Trav Talk, Travalog
- Travel Brochures of Airline companies and Holiday Travel companies

.....

TA-215

Travel Agency Management

Travel Agency Management

CO1) Travel agency & tour operation are integral part of travel & tourism industry without which both the aspects would not be possible. In this the students are required to learn the ropes of the industry in order to facilitate the procedure.

CO2) The students will understand the conceptual meaning and differentiation between Travel agency and Tour operation.

CO3)Further they will understand formalities and documentation needed to set up these units.

Course contents:

Unit – I Travel formalities:

Passport, Visa, Health requirements, taxes, customs, currency, travel insurance, baggage and airport information. Travel Agency and Tour Operation Business: History, Growth, and present status of Travel Agency. Definition of Travel Agency and differentiation between Travel Agency and Tour Operation business. Travel Agency and Tour Operators: Linkages and arrangements with hotels, airlines and transport agencies and other segments of tourism sector.

Unit- II Approval of Travel Agents and Tour Operators:

Approval by Department of Tourism, Government of India. IATA rules and regulations for approval of a travel agency, Approval by Airlines and Railways. Study of various Fiscal and Non – Fiscal incentives available to Travel agencies and Tour Operations business.

Unit III- Functions of a Travel Agent:

Understanding the functions of a travel agency - travel information and counseling to the tourists, Itinerary preparation, and marketing of Tour packages, handling business/corporate clients including conference and conventions. Sources of income: Commission, Service Charges.

Unit IV-Travel Terminology: Current and popular travel trade abbreviations and other terms used in preparing itineraries.

Unit V: Functions of a Tour Operator:

Market research and tour package formulation, assembling, processing and disseminating information on destinations, Liasioning with principles, preparation of Itineraries, tour operation and post tour Management. Sources of income for tour operation.

Unit VI: Public and Private sector in Travel Agency Business and Tour Operation Business:

Organizational Structure and various Departments of a Travel Agency. The Indian Travel Agents and Tour Operators – an overview. National Trade Associations: -Role and contribution of WTO, IATA, TAAI and IATO.

Unit VII: Accommodation**: Primary and Secondary Accommodation**

TEXT BOOK:

Travel Agency & Tour Operation: Jagmohan Negi

Suggested Reading:

Holloway, J.C., (1983), The Business of Tourism, McDonald and Evans, Plymounth.

Syratt Gwenda, (1995). Manual of Travel Agency Practice, Butterworth Heinmann, London

Stevens Laurence, (1990). Guide to Starting and Operating Successful Travel Agency, Delmar Publishers Inc., New York.

Chand, Mohinder, Travel Agency Management, Anmol Publication

TA-215A- Consumer Behavior

Course Outcomes:

CO1: Knowledge amongst students of consumers, consumer behavior in the market place and their impact on marketing strategy with special focus on advertising arena.

CO2: Making students learn the principal factors that influence consumers as individuals and decision makers with an application to the buying decision process.

CO3: Understand the importance of subculture and global consumer and culture as marketing opportunities.

CO4) Students shall understand that an increasingly aware and alert consumer is changing the dynamics of the market place. Moreover in the context of societal marketing philosophy, the ethical issues like consumer rights and deceptive advertising shall also be brought to the fore.

.

Course Contents:

1. **Introduction to the study of Consumer Behavior**: Nature, scope and application
2. **Environmental influence on Consumer Behavior**: Cultural, social, family, and situational influences, opinion leadership and lifestyle marketing, Characteristics of culture, cross cultural understanding, nature of social class and consumer behavior.
3. **Environmental influences on consumer behavior:** Nature and significance of personal influence, marketing implications of personal influence, significance of family in consumer behavior and family life cycle, opinion leadership forms.
4. **Consumer as an individual**: Involvement & motivation, attitude, values, personality, learning and lifestyle, Dimensions of involvement and its marketing implications, Nature and role of motive, classifying motive, characteristics, functions and source of attitudes, attitude theory and model, characteristics and classification of learning, personality theory and application.
5. **Consumer Behavior models**: Consumer economic view, passive view, cognitive view and emotional view – Nicosia, Howard; Engel Blackwell models, Family decision making model.
6. **Consumer decision processes**: Pre-purchase process: information processing purchase process: consumer decision rules post-purchase processes: dissonance, Analysis of consumer decision making process in case of service product.
7. **Organizational consumer Behavior:** Difference between consumer and organizational buying behavior, factors influencing organizational buying behavior.

Text Reading:

Leon G. Sciffman and Lustic Lazer Kanuk: Consumer Behavior
James F. Engel, Roger D. Blackwell, Paul W. Miniard: Consumer Behavior
William L. Wilkie: Consumer Behavior
Del I. Hawkins, Roger J. Best and Kenneth A. Coney: Consumer Behavior
Implication for Marketing Strategy IRWIN

Supporting Reading:

1. Brand Equity – Supplement, **Economic Times**
2. Corporate Dossier – Supplement, **Economic Times**
3. The Strategist – Supplement, **Business Standard**.
4. Advertising And Marketing (A&M), Journals Of Marketing Research, **Business Today**

MBA (T) 2 Years, Sem- III Subject list

Subject Code	Subject Name
TA-301 A	French II
TA-304	International Ticketing
TA-307	Hotel Operations & Management
TA-313	Airline Management II
TA-314	Organization Behavior
TA-315	Service Marketing strategies
TA-316	Cargo Management
TA-317	Internship/Seminar/Presentation

Examination:

Internal Assessment: 40 marks

Internal Assessment I : 20 marks
Internal Assessment II : 20 marks
Internal Assessment III: 20 marks

} Best OF Two

End- Semester Examination: 60 marks

TA-301A : French-II

Course Outcomes:
CO1).Enhance the French language learnt in previous semester.
CO2). Acquire more vocabulary words, grammar.
CO3). Communicate in French language.
CO4). Learn translations

Course Content:

1: Adventure in Bourgogne

Lesson 1:-Noise and disappearances
Lesson 2:-Disguise
Lesson 3:-Mardi Gras,a French festival

2:The enquiry of the inspector Darot

Lesson 1:-A very busy director
Lesson 2:-The mysterious disappearance.
Lesson 3:-The enquiry starts.
Lesson 4:-The enquiry continues
Lesson 5:-Theatre shot

3: Grammar
Partitive articles, Demonstrative adjective, Possessive adjective, adverb of quantity

4: Tenses
Future, Imperative, Simple past tense, past continuous tense.

5: Vocabulary
Learn to ask and order, express thanks, knows different regions, report writing etc.

TA-304:International Ticketing

Course Outcomes:
CO1) This subject will provide the basic skills to enable the students to accurately construct air fares and adopt professional ticketing practices.
CO2) Calculate airfare, to study MPM, TPM and fair calculations.
CO3) Learn commands of latest CRM present in mrket.

Course Contents:

1 International City, Airport & Airline Codes.

2 IATA Geography, Global indicators & Air itinerary planning with the help of OAG Manual.

3 How to see fare. Fare rules & special fares with the use of PAT manuals.

4 Fare construction Rules/Steps for one way, Round Trip, Mixed class journey Round the world .

5 Fare including side Trip and Open Jaw considerations. using the mileage system concept.

6 Issuance of International Air Ticket, Ticket Changes/Reissuance/Cancellations, Billing and Settlement Plan: Concept and procedures.

7 Voluntary and Involuntary routings with and without changes in fare.

References :

CRS Training Recommended:

(1) Amadeus
(2) Galileo
(3) Abacus

Understanding Reservation Procedures on Airline / LCC Portals and travel agency portals

TA-307: Hotel Operations Management

Course Outcomes:

CO1) In this competitive environment, service sector is on boom. This course will provide the students with the knowledge of how Hotel industry can be managed.
CO2) Various organizations related to Hotels and their impact on Accommodation Industry.
CO3) Learn about the behavior to be depicted in front of customers (Body Language)
CO4) Learn working of various departments of Hotels.
CO5) Learn Hotel terminologies which are used in Hotels.

Course contents:

1: Tourism & Accommodation :
Introduction to hotels, Accommodation Industry, Types , Evolution of lodging industry, Need, Importance, role of hotels, FHRAI, Star Hotels and Classification.

2: Hotel Industry an overview :
Overview of Hotel Industry: brief history – last 70 years, Types of hotels – based on location, facility, size, clientele etc, Role of hotels for growth of Tourism Industry

3. Hotel Key Departments :
Front Office Management -- Introduction to Front Office Department, Advantages, Formalities and formats, Types of rooms and plans. Organization Chart and duties and responsibilities, Qualities of a front-office staff

4.House Keeping:
Introduction to Housekeeping, importance of housekeeping department, Organizational Chart and the duties and responsibilities. Cleaning- different equipments & agents, Daily routine systems, Laundry, Linen& Uniform, Interior Decoration & facilities, Special decorations.

5.Food & Beverage Service: Introducing to food & beverage Service, types of services,
Organizational charts and duties,

6. Marketing Of Hotels :
Meaning and concept of Hospitality Marketing—importance & its future.

7. **Computerization in hotel industry**:
How computers help to enhance services, Software and packages available for hospitality industry, Networking – how it improves services

Reference Text Books:

1.Theory of Cookery -- Krishna Arora
2. Modern Cookery Vol-I & II – T.E.Philip
3. Food & Beverage Service – Vijay Dhawan
4. Managing Front Office Operations – Michael L Kasarana & Richard Brooks
5. Operations Management – Stainley Phornco
6.House Keeping Manual – Sudhir Andrews
7. Introduction to Hospitality - I & II – Dennis Foster
8.Marketing of Hospitality ---- Kotler , Bowen , Makens.

TA 313-Airline Management II

Course Outcomes:

CO1) The outcome of the subject is to make students aware of the policies and working of airline industry. Also keep them updated of the latest happening in aviation, government policies, agencies etc.
CO2) Dangerous goods at airport, how to deal with them.
CO3) Load and Trim sheet calculation.

Course Contents:

1. Introduction-aviation, airline working, history of aviation, Abbreviations pertaining to airlines, phonetics, agencies related with aviation Ramp equipments- trolleys, step, conveyor belt, Ramp safety and precautions.
2. Airport handling, YMS-CRC, check-in formalities, documentation, Load and trim sheet basic understanding of weight control, Baggage handling-PIR, Lost luggage handling
3. Regulatory authorities in aviation- ICAO, IATA, DGCA, AAI- (IAD, NAD)
4. Service control, seat allocation, coupon handling, post flight documentation
5. Special handlings, UM, HUM, YP, WCHC ETC
6. Air Cargo-AWB, Dangerous goods, capacity and configuration live stocks etc., Aircrafts types, maintenance scheduling
7. Coordination-sales, Accounts, Reservation, ATC etc for flight operation.

Reference Text Books:

- IATA airport handling manual
- Flight safety manual-IATA
- Aviation weekly
- Janes weekly

TA-314- Organizational Behavior

Course Outcomes:

CO1: Understand Evolution of Organizationbehavior in terms of cognitive, behavioristic and social cognitive aspects.

CO2: Understanding and application of factors affecting motivation with its theories beneficial for today's competitive environment today.

CO3: Understand factors affecting organizationalbehavior shaping Personality, Perception and Learning processes of employees.

CO4: Understand Interpersonal Processes and Behaviors, Team Development, Foundations of Group Behavior and Group Dynamics, Developing Work Teams, Team Effectiveness & Team Building for organizational benefit.

CO5: Knowhow of organizational systems and organizational change process, factors affecting change and its coping mechanism.

CO6: Understanding and application of Contemporary theories of leadership, Johari Window, Transactional Analysis and Success stories of today's Global and Indian leaders.

Course Contents:

1 Fundamentals of OB

Definition, scope and importance of OB, Evolution of OB, Theoretical framework (cognitive, behaviorist and social cognitive), Limitations of OB.

2 Individual Process and Behavior:

.Attitude: Importance of attitude in an organization, Right Attitude, Components of attitude, Relationship between behavior and attitude, Job attitude, Barriers to changing attitudes

Personality and values: Definition and importance of Personality for performance, The Myers-Briggs Type Indicator and The Big Five personality model, Significant personality traits suitable to the workplace (personality & job – fit theory), Personality Tests and their practical applications.

3 Perceptions and Motivation:

Meaning and concept of perception, Factors influencing perception, Selective perception, Attribution theory, Perceptual process, Social perception, Barriers of Perception.

Motivation: Definition & Concept of Motive & Motivation, The Content Theories of Motivation (Maslow's Need Hierarchy & Herzberg's Two Factor model Theory), The Process Theories (Vroom's expectancy Theory & Porter Lawler model), Contemporary Theories- Equity Theory of Work Motivation .

4. Interpersonal Processes and Behavior, Team and Leadership Development:

Foundations of Group Behavior: The Meaning of Group & Group behavior & Group Dynamics, Types of Groups, The Five -Stage Model of Group Development, Managing Teams: Why Work Teams, Work Teams in Organization, Developing Work Teams, Team Effectiveness & Team Building

Leadership: Concept of Leadership, Styles of Leadership, Trait Approach, Contingency leadership Approach, Contemporary leadership, Concept of transformational leadership, Contemporary theories of leadership, Johari Window, Transactional Analysis, Success stories of today's Global and Indian leaders.

5. Organization System:

Organizational Culture: Meaning & Definition of Organizational Culture, Creating & Sustaining Organizational Culture, Types of Culture (Strong vs. Weak Culture, Soft vs. Hard Culture & formal vs. Informal Culture) , Creating Positive Organizational Culture, Concept of Workplace Spirituality.

6. Managing Change:

Organizational Change: Meaning, definition & Nature of Organizational Change, Types of organizational change, Forces that acts as stimulants to change.

7. Implementing Organizational Change:
How to overcome the Resistance to Change, Kurt Lewin's- Three step model, Seven Stage model of Change & Kotter's Eight-Step plan for Implementing Change, Dealing with Individual & Group Resistance.

Reference Text Books

• Organizational Behaviour by Robins
• Organizational Behaviour by Fred Luthans
• Organizational Behaviour by Stephen Robins, Timothy Judge, Neharika Vohra
• Organizational Behaviour by K Ashwathappa

TA-315-Service Marketing Strategies

Course Outcomes:

CO1: Equipping students with core competencies and skills sets suitable for service sector
CO2: Create an in-depth understanding of service sector, service concept and service Characteristics
CO3: Understand service marketing mix
CO4: Knowledge of development of service product, pricing, promotion and distribution decisions
CO5: Understanding service process role in service marketing mix and development of blue print
CO6: Managing and crafting Physical environment
CO7: Understanding the role of people in service organization and ways to maintain personnel quality
CO8: Describe Service quality concept, dimensions and model.

Course Contents:

1. **Understanding Service Markets, Products and Customers** -Services Perspective: service concept, service marketing triangle, and evolution of service marketing, reasons for growth of service sector, difference B/w Goods & services, and I's of services, classifications of services.
2. **Segmentation. Targeting & positioning in services** : meaning and strategies
3. **Service products :** Service products: meaning of service product, service product levels, PLC, new service, service product range, process of new service development, and reasons for success or failure of new services –products, service product elimination.
4. **Pricing Services and Distributing Services**: price terminologies, costs of service incurred by customers, pricing tripod, pricing objectives, formulating pricing strategy, price tactics. Elements of distribution, methods of distributing services.
5. **Services marketing communication**: Promotional objectives, developing the promotion mix, key aspects of communication for the service marketers.
6. **Extended P's of Service marketing :**1) Designing and managing **service processes**: service blue –print, steps in service process, self reinforcing service cycle.
   2) Crafting the Service Environment: elements of **physical evidence**, kinds of physical evidence, roles of service escape, approaches for understanding services escape effects, guidelines for physical elements strategy.
   3) Managing **People** for Service Environment: service personnel, service personnel quality, maintaining improving services personnel quality & performance, personnel audit, models of customer's as users of services.
7. **Implementing Profitable Service Strategies** - 1) Service quality: impact of service quality, approaches to service quality, dimensions of service quality, models of service quality, SERVQUAL instrument, service productivity.2)Designing a service strategy: internal marketing, external marketing, interactive marketing.

Books

- Zeithml, V.A. & Bitner, Mary, Jo. (2011).Services marketing. Tata- McGraw- Hill Edition.
- Lovelock,C., Wirtz, J., Chaterjee, J. (2011).Services marketing. Pearson Prentice Hall.
- Shankar, R. (2011). Services marketing. Excel Books.

TA-316-Cargo Management

Course Outcomes:

CO1) Enhance the knowledge of tourism students about the cargo movement(import/export) and their legal formalities so as to successfully deal cargo along with passengers in all modes of transportation.

CO2) Understanding different types of cargos and ways of transporting them.

CO3) Understanding Muti model transport and its operational procedure.

CO4) Understanding implication of different international convocations on Export and Import policies.

Course contents:

1. **Introduction of Cargo Management:** Export-Import (a) Procedure(b) documentation: post and pre export import (c) clearance (d) bank negotiation of documents (e) units- 100% export oriented units, free trade zone, export processing zones, software technology park, electronic hardware technology park.

2. International Commercial Terms: Free on board, cost insurance and freight, cost and freight, etc

3. Cargo liabilities & Insurance: Marine Insurance, General Cargo Insurance and relevant clauses, mutual and Liability Insurance's claims and procedures

4. Multi-model transportation: Containerization, combined transport , Trade: classification, problems Distribution Channels, Value added Chain

5. Introduction Foreign Trade Licenses: Duty exemption pass book scheme, Export promotion capital good schemes, special Import license, Duty drawback, Open general license, Foreign license authority

Transport Liabilities: multi-model transportation of goods act, Inter model transport state practice, carriage of goods by sea, air, waterways and roads

6. Logistic Management: classification models

Physical infrastructure for multimodal transportation, container freight station, dry port

Packaging, palletization and storage of cargo, handling and transportation of dangerous cargo, storage and warehousing in India

7. Transportation liabilities: Warsaw convention, Hague convention, Hague- visby rule, Hamburg rule

Sea-air cargo, documents in three modes (Airways bill, Railway Receipt, Lorry receipts, etc)

General Terms (less than container load, full container load, consolidation, freight forwarding, etc)

Electronic data Interchange in Transport management

Recommended Reading:

- EXIM (magazine)
- Air Cargo Management-Michael sales

.....

International Institute Of Professional Studies
Devi Ahilya Vishwavidhyalaya (DAVV)
MBA (T), Sem-IV

MBA (T) 2 Years, Sem- IV Subject list

Curriculum for MBA (T): Sem-IV

Subject Code	Subject Name
TA-401	French -III
TA-404	Foreign Exchange Management
TA-408	Entrepreneurship
TA-410	Conference ,Convention and Event Management
TA-411	e- commerce for Tourism
TA-412/TA-405B	Decision Making Skills/MRP

Examination:

Internal Assessment: 40 marks

Internal Assessment I : 20 marks
Internal Assessment II : 20 marks
Internal Assessment III: 20 marks

} Best OF Two

End- Semester Examination: 60 marks

TA - 401: French III

Course Outcomes:

The outcome of the course is to develop linguistic and communication skills in French including written and oral expression and comprehension.

CO1) Linguistic: To learn basic French grammar and vocabulary

CO2) Communication: To enable students to introduce oneself and converse spontaneously in given social settings.

CO3) Civilization: To introduce some aspects of France, its people and culture.

Course Content:

1. Story: The Queen of Sands

Lesson 1: Coup de theatre

Lesson 2: Plans

Lesson 3: Breakdown

2. Lesson 4: Discovery

Lesson 5: Conflicts

Lesson 6: Towards the future

3.Vocabulary: Press and media

Cities and link roads

Weather and seasons

4.Grammar: Pronouns "en " and "y"

Relative pronouns

Masculine and feminine forms

Conjugation and superlative forms

Conjugation of verbs in the future, present continuous, recent past.

5.Phonetics: Intonation, Complex sounds

6.Communication

Asking for permission

Forbidding

Formulating plans

Discussing and Debating

7.**Civilization**

Administration and regional life

Economical and ecological problems

Traditions and modernity

Reference Text Books:

- Le Nouveau sans Frontiers-I
- Apprenons le Francais-2,3

TA- 404: Foreign Exchange Management

Course outcome

CO1) This course will provide students an opportunity to understand the travel and tourism and prepare them to face challenges on the industry.

CO2) Understand and provides an insight into the foreign exchange involved in the various tourism related activities.

CO3) Understanding different types of exchange rates and the forex dealers procedures.

CO4) Learn about the currency market and international organization involved in it along with there role.

Course Content :

1. Theory of Foreign Exchange: meaning & need of foreign exchange, International Monetary system, international forex market, risks

2. Balance of payment, Forex Reserves, Currency convertibility- Partial & full

3. Indian Forex market: Retail market, wholesale market and their activities, Administration of Forex market, role of FEMA, RBI & FEDAI, Exchange Control, Ads & AMCs

4. Exchange Rate Mechanism: Factors affecting Exchange Rate, types of quotation. Different types of rates quoted by Ads and their application. Forecasting exchanges rates, numerical problems on exchange rates.

5. Exchange Risk management: Hedging through Forwards, Options, Swaps and Futures

6. Finance of Foreign Trade: Export Finance and Import Finance, Factoring and Forfeiting: International Institutions and Organization IMF, IMRD, ADB, ICC, ACU

7. Trends in Forex Market: Concept of GDR, VDR Foreign Bonds & Euro Bonds. 1. FCNR (B) RIC & accounts

Suggested Book:

- FOREX Management by Biztantra
- International Finance by P G Apte
- Business Environment by Mishra and Puri

…….

TA- 408: Entrepreneurship

Course Outcomes:

CO1: Understand the concept of entrepreneur, entrepreneurship and their characteristics
CO2: Analysis of entrepreneurship and its environment- social, cultural and technological
CO3: Creative idea and its development into a business plan, study on sources of new ideas
CO4: Creativity, Innovation and Idea Generation methods
CO5: Implications of New Ventures, and Financial Management in New Ventures
CO6: Issues of Marketing for New Ventures
CO7: An analysis of Problems faced by new ventures, and expansion strategies for New Ventures.
CO8: Detailed implications of the Expansion strategies for new ventures.

Course contents :

1.Entrepreneurship and its environment- The concept of Entrepreneurship, The introduction & concept of Entrepreneur, Characteristics of an Entrepreneur, Functions of an Entrepreneur, Entrepreneurial Environment: External market, Economy, Political & Legal, Technology, Social & Cultural, Internal Materials, machines & Equipments, Processes, Capital Labors

2. Problems and Challenges of Organizations/Enterprises: Economic (Capital, material and labor),Non-Economic (Social, Political and Personal)

3. Project Planning: Steps in business planning, Formulation of Business Plan

4. Financial Management Issues, Financial requirement and its planning, Balance sheet and income statement, Determination of cost, Cost-Volume profit Analysis

5. Marketing and operations Management Issues: Functions of marketing, Concept of Product Life Cycle, Issues related to Product & its design, distribution, Promotion, Price, Operation management: Inventory management, Quality management

6. Human Resource Management Issues: HR Planning, Recruitment & Selection, Training & Development, Performance Appraisal, Motivation, Compensation & Rewards, Relevant Labor Laws

7. Legal Issues for an Entrepreneur: Patents, Copyrights, Trademark

Reference Text Books:

- Entrepreneurship New Venture Creation: David H. Holt
- Entrepreneurship : Peter Hirsch

TA- 410: Conference,Convention and Event Management

Course Outcomes:

CO1) With the increase in demand of conferences and exhibitions, a need for trained professionals for this field has been recognized.

CO2) This subject aims at preparing students to successfully plan and execute conferences, events and exhibitions.

Course Contents:

1. **Introduction-** Conference- sales conference, press conference: corporate presentations, Annual General Meetings, Road shows, Product Launch, Exhibitions, Seminars and Symposia.
2. **Budgeting and Programming-** group history analysis, setting the objective, Projection and Controlling Budget, agenda and Pattern, Determining space, destination and venue.
3. **Developing and Organizing Meeting Plan**- On-site Management, Post-meeting Evaluation, Checklist, GANTT, PERT
4. **Trade Shows-**
    a. Planning- show selection, show location, analysis, pre-show planning
    b. Coordinating show
    c. Marketing
    d. Post show follow up
5. **Principles of Event management-** Introduction to event Management, Size & type of event, Key element of event, Activities in event management (pre, during and post)
6. **Event planning & team management-** Aim of event, Event Team, Code of ethics, Develop a mission, Establish Objectives Preparing event proposal, Use of planning tools, Protocols, Dress codes, staging, staffing ,Leadership, Traits and characteristics
7. **Event marketing & management-**
    a. Event as a marketing tool.
    b. Concept of product, price, place, promotion in event.
    c. Strategic marketing planning.
    d. Evaluation – event performance.

Text Books:

- The complete conference organizers handbook: Robin O'Conner
- How to get the most out of Trade Shows: Steve Miller
- Event marketing and management: Sanjay Gour and Sanjay Saggere

…….

TA- 411: E-Commerce for Tourism

Course Outcomes:

CO1) Major learning in this subject is expected to be in area of use of technology in Tourism industry in present e-commerce environment.

CO2)Learning topics like electronic payments, online marketing related to Tourism industry and their application.

CO3)Understand the security and privacy issues in the current cyber environment.

Course Contents:

1. Introduction to e-commerce and e-business, Difference between traditional commerce and e-commerce, types of e-commerce, e-commerce framework, application and network infrastructure, e-commerce transaction type- B2B, B2C etc.
2. E-business models: Business model ingredients, B2C, B2B model with example related to Tourism industry, case study related to B2C and B2B.
3. Online Tourism Services: Introduction of Online Tourism Services, Online Tourism Market, Case study from Tourism Industry.
4. E-Payment System and its types and comparison, Token base payment, Smart card, Credit card, Debit Card, etc. design in one of payment system, Risk involved in e-payment system.
5. Electronic market place of Buyers and Sellers, Consumer behavior and markets, advertising and marketing on Internet, online marketing, online advertising and tool of advertising.
6. Security issues: Cyber laws, Cyber crimes and security issues, security concept, dimension of security, method, cryptography, encryption description.
7. Case Studies related to Tourism industry in E-commerce environment.

Suggested Books:

- E-Commerce: Business, Technology and Society by Kenneth C Loudon, Pearson Publication.
- E-business and E-commerce Management by Dave Chaffey, Pearson Publication.
- Electronic Commerce by Ravi Kalakota and B.Whinston, Frontiers of e-commerce, New Delhi, Addisin-Wesley, 2000 edition.
- Ravi Kalakota and M.Robinson , E-Business : Road map for success, New Delhi, Addisin-Wesley,2000 edition.

TA-412: Decision Making Skills

Course Outcomes:

CO1: Acquaint themselves with all the facets of Decision-Making Process in Advertising and Public Relation.

CO2: Understand Theories of decision making, SWOC Analysis, Thompson's matrix. Porter's five forces model, Mc Kinsey 7S model. PEST model for better decision-making process.

CO3: Identifying the need, means for deciding, possible options, tradeoffs etc. as Integrated Decision-Making Process.

CO4: Application of Intervening variables in decision making and Internal/External Implementing Decisions with Communication, types and Acceptability of decisions, long term impact assessment

CO5: Role of Group Decision making – Various stakeholders, collective bargaining process.

Course contents:

1. Introduction to Decision making: Types of Decisions, Art or Science.
2. Theories of Decision making: SWOC analysis, Thompson's matrix, Porter's five forces model, Mc Kinsey 7s model, PEST model
3. Integrated Decision Making process: Identifying the need, means for deciding, possible options, trade offs
4. Types of problem solving behavior
5. Intervening variables in decision making- Internal and External
6. Implementing Decisions: Communication and Acceptability of decisions, long term impact assessment
7. Group Decision Making: Various stakeholders, collective bargaining process

Suggested Books:

- Agarwal R. D.; Organization and Management, Tata McGraw –Hill Education.
- J Frank Yates, Decision Management, University of Michegan Business School, Wiley India Edition

---

TA- 405B: Major Research Project

Course outcomes

CO1) Major Research project is an opportunity to gain knowledge of the field while still learning.
CO 2) In this MRP, a student is required to do a live project and submit report in hard as well as soft copy .
CO3)Considerably more in-depth knowledge of the major subject/field of study, including deeper insight into current research and development work.
CO4)A capability to contribute to research and development work.
CO5)The capability to use a holistic view to critically, independently and creatively identify, formulate and deal with complex issues.
CO6)The capability to plan and use adequate methods to conduct qualified tasks in given frameworks.
CO7)The capability to critically and systematically integrate knowledge to understand and solve management issues .
CO8)The capability to clearly present and discuss the conclusions as well as the knowledge and arguments that form the basis for these findings in written form.
CO9)The capability to identify the issues that must be addressed within the framework of the specific thesis in order to take into consideration all relevant dimensions of sustainable development.
CO10)A consciousness of the ethical aspects of research and development work.

Contents:

Major Research project is an opportunity to gain knowledge of the field while still learning. In this MRP, a student is required to do a live project and submit report in hard as well as soft copy as per the guidelines mentioned below:

1.Title Page
2.Declaration by the student that work is original (given format)
3.Certificate from Guide (given format)
4.Acknowledgement
5.Table of contents
6. Abstract or summary (not more than 1 page) which includes:
   a) Brief objectives
   b) Findings
   c) Conclusion
   d) Recommendations

7. Introduction (I. Brief overview of proposed work and its importance II Brief description of topic related scenario and facts)
8. Literature review and objectives of the study
9. Research Methodology (Study design, sample design, Data collection method, research instrument, data analyzing technique etc….)
10. Findings and Discussion
11. Conclusion
12. Limitations of research
13. Scope for further research
14. Bibliography, appendix, tables etc

DEVI AHILYA VISHWAVIDYALAYA, INDORE

(Formerly University of Indore) , NAAC "A" Grade

State University of Madhya Pradesh, India

International Institute of Professional Studies

I I P S

DAVV

International Institute of Professional Studies

Syllabus
Of
Master of Business Administration (Management Science) (5YDC) Integrated Programme

Academic Session : 2018-23

THE DIRECTOR DESK

Dear Scholar,

Welcome to one of the most prestigious, academic institution in central India offering professional education in Management, Computer Science and Commerce Streams. It has state of art infrastructure, pool of multi discipline faculty and devoted staff that creates a conducive environment for academic excellence and holistic development of yours, paving the way for your bright career prospects. Team IIPS looks forward to contribute towards your successful future life.

Team IIPS-MANAGEMENT

Dr. Anand K. Sapre, Professor, Director Ph D,MBA	**Dr. B.K. Tripathi, Professor** Ph.D (Mgt), MBA(HR), Ph.D (Chem), M.Sc (Chem)	**Dr. Yamini Karmarkar, Reader,** Ph D, FDP-IIMA, MMS
Dr. Geeta Sharma, Reader **Ph D , MBA (Finance), PGDPM&IR**	**Dr. GeetaNema, Reader** Ph D , MBA	**Dr. Jyoti Sharma, Reader** Ph.D., MBA (HR), M.A.(Psy), PGDCABM
CS. Dr. Manish Sitlani, Reader Ph D , ACS, MBA, M Com , LLB (Hons),UGC NET	**Dr. Preeti Singh, Reader** Ph.D.,MBA, B.Ed(DE)	**Dr. Suresh C. Patidar, Reader,** Ph D, MBA, M.Com, CS Inter, UGCNET, LLB(Hons)
Dr. Ravindra Yadav, Sr Lecturer Ph D , FDP-IIMA,MBA, DEE	**Dr. Manminder S. Saluja, Sr Lecturer** Ph D (Economics), M Phil, MA	**Dr. Anshu Bhati, Sr Lecturer** PhD, MBA(APR)
Dr. Pooja Jain, Sr Lecturer PhD, MBA(APR)	**Dr. Sujata Parwani, Sr Lecturer** Ph.D. (Economics) , M.A., M.Phil	**Dr. Kapil Jain, Sr. Lecturer** PhD(Mgt), MBA(Fin), M Phil., M Com.
Dr Surendra Malviya, Lecturer Ph D, MBA (E Com)	**Dr Muskan Karamchandani, Lecturer,** PhD, MBA (MS)	**Dr. Gaurav Purohit, Lecturer** Ph D , MBA (Tourism)
Dr. Nirmala Sawan, Lecturer M Sc, Ph D (Statistics)	**Dr. Shilpa Bagdare, Lecturer** PhD, MBA(Mktg)	**Dr.Navneet Kaur Bhatia,Lecturer** Ph D, MBA (Finance)
Dr. Prerna Kumar, Lecturer, PhD, MBA(Mktg)	**Mr. Naresh Dembla, Lecturer** ME (Comp Sc Engg), MBA, BE	**Dr Shikha Pandey, Lecturer** Ph D, MBA(Tourism)
Dr. Jyoti Jain, Lecturer Ph.D., MBA, MA	**Dr. Neha Chouhan, Lecturer** PhD, MBA	**Mr Ravi Bunkar, Lecturer** MBA (Mktg)
Ms. Monalisa Khatre, Lecturer MBA (Mktg)		

MrYogendra Singh Bawal, Network Administrator Incharge, Administrative Officer M Sc(CS), M Sc. (Elex & Comm.), CCNA	**Dr Suresh Patidar,** Incharge, Placement Officer Ph D, MBA, M.Com, CS Inter, UGCNET, LLB(Hons.)
Dr. Kapil Jain, Ph.D.(Mgt),MBA(Fin), M Phil, M Com. Program Officer, National Service Scheme (NSS) Coordinator, Red Ribbon Club, MPSACS Warden, JN Boy's Hostel	**Dr. Sujata Parwani**, Ph.D. (Economics), M.A., M.Phil, Program Officer, National Service Scheme (NSS)

DAVV at a Glance

There are twenty seven teaching departments offering undergraduate, post-graduate and research programs in sixteen Faculties. It is amongst the first few Universities in the country to introduce innovative and integrated courses in the area of science, engineering, technology, management, law and media. The university has 270 affiliated colleges in addition to University teaching departments and centers. The University provides and nurtures research environment for promoting high quality original research. It offers Ph.D. and M. Phil. Programs in all the subjects**.**

The Hon'ble Governor of the State is the Chancellor of the University. The University functions as per Act, Statutes, Ordinances and Regulations. The Registrar, Examination Controller and Finance Controller of the University assist the Vice Chancellor in administrative, examination and financial matters. The University has duly constituted bodies - Executive Council, Academic Council, Boards of Studies, Finance and other committees for decisions on major academic, administrative and financial matters.

The University is prepared to embrace future challenges, explore new horizons and keep moving ahead on the path of excellence, innovation and enlightenment.

About IIPS

International Institute of Professional Studies (IIPS), a pioneer institute under Devi AhilyaVishwavidyalaya DAVV was established in 1991 to provide a new dimension to professional education. It has emerged as one of the best management schools of Central India. The Institute is located in the sprawling Takshashila campus of the University surrounded by lush green environment. The Institute offers following courses

1. Master of Business Administration (Management Science) (2YDC)
2. Master of Business Administration (Management Science) (5YDC) Integrated Programme
3. Master of Business Administration (Advertisement and Public Relations) (2YDC)
4. Master of Business Administration (Tourism Administration) (5YDC) Integrated programme
5. Bachelor of Commerce (Hons.) (3YDC)
6. Master of Business Administration (Entrepreneurship) (2YDC)
7. Master of Business Administration (Tourism Administration) (2YDC)
8. Master of Computer Application (6YDC) Integrated Programme
9. Master of Technology (Information Technology) (5YDC) Integrated Programme
10. Doctor of Philosophy (PhD) in Management
11. Doctor of Philosophy (PhD) in Computer Science

The lush green campus of the IIPS Includes an academic complex of classrooms, seminar room, an auditorium, a well-equipped library, computer labs and development center and administrative offices. The classrooms are specious and well equipped.

IIPS has one of the finest computing environments among the management Institutions in Central India. The institute provides internet facility through Wi-Fi to the students in campus.

About MBA (MS) 5 Yrs Integrated Program

Master's in Business Administration (Management Science) was introduced by D.A. University in the year 1992 keeping in view the increasing manpower requirements of the industry in the post liberalization era. This innovative course is designed on the philosophy of "Catch them Young". In first three year (BBA), program has objective to provide the fundamental concepts and theory of business practice in a business discipline. Last two year (MBA) the programme is designed to enable students to integrate knowledge of various functional areas including marketing, finance and human resource and other aspects of management based on current trends in the market. It also helps in enhancing the decision making skills of the students in various areas so that they can identify the market opportunities and face the challenges in the business environment.

The course provides ample flexibility in terms of choice of electives from first semester onwards. It is designed to accelerate learning amongst students. The options of dual and single specialization offer opportunity to nurture professionals and entrepreneurs in diversified areas like Finance, Marketing, HR etc. The inputs in the form of seminars, MRPs, summer internship etc add to the creativity, leadership skills and ability to work in Team.

Objectives - This five years full-time postgraduate program in management aims at developing leadership qualities, business skills and managerial competencies blended with societal concern among the stakeholders. The focus of MBA (MS) program is on developing an understanding of "Management as Science". The core objectives of this program are:-

- To develop knowledge in core areas of business including finance, marketing, management and strategy, based on current research and practices
- To inculcate skills essential for managers i.e, decision making skills, leadership skills, communication skills and team working abilities
- To inculcate an attitude of compassion towards fellow beings, commitment towards work and sense of social purpose among students for becoming responsible citizens.

Advantage 5 years – IIPS was pioneer in conceptualising the integrated courses in management and computer science. The rich experience of 27 years has given MBA (MS) 5yrs program certain unique advantages.

The students study three semesters of specialisation (7^{th}, 8^{th} and 9^{th}) which enables them to develop indepth understanding of their respective specialisation.

- The smooth transition from UG to PG in the same department makes them more confident and clear about their goals.
- The students carry 10^{th} semester doing industrial training. This gives them an opportunity to implement the theoretical knowledge.

Learning Outcomes -The programmeis designed to enable students to integrate knowledge of various functional areas including marketing, finance and human resource and other aspects of management based on current trends in the market. It will also help in enhancing the decision making skills of the students in various areas so that they can identify the market opportunities and face the challenges in the business environment. At undergraduate level the course provide a strong foundation in developing critical thinking, analytical, problem solving skills and also equip them with the ability to identify and evaluate relevant information for decision-making. Last two year (MBA) the programmeis designed to enable students Marketing, Finance, HR, Strategy formulation and implementation. Marketing, Finance, HR, Strategy formulation and implementation. Data analysis, supply chain management, product and brand management, financial research, market research and organizational development.

Career opportunities – Students may build career in various fields. "Marketing field" offers Jobs including Sales, Marketing, Advertising, Retail, Market Research etc. "Finance" offers jobs in fields like Equity analysts, Banking, Insurance, Consultancy, Business analyst, Selling Financial Products etc. "Human Resource field" offers jobs with recruitment firms, HR planners etc. Moreover students from all specializations can pursue career in higher education as teachers and researchers in **the areas of** Marketing – Retail, Consumer Behaviours, Service marketing, Etc. Finance – Banking, Personal Financial Management, Equity Markets, and Foreign Exchange etc. HR – Recruitments strategies, Training and Development etc, or General Management. Building career as an Entrepreneur is another prominent choice available to students of MBA (MS) 2yrs.

Name of the Programme: MBA MS (5YRS) Integrated Programme

Programme Specific Outcomes

PSO1: Understand the fundamental concepts and theory of business practice in a business discipline in first three years (BBA).

PSO2: Integrate knowledge of various functional areas including marketing, finance and human resource and other aspects of management based on current trends in the market during the last two years (MBA) of the programme.

PSO3: Enhance students decision making skills in various areas so that they can identify the market opportunities and face the challenges in the business environment.

PSO4: Nurture professionals and entrepreneurs in diversified areas like Finance, Marketing, HR etc.

PSO5: Add to the creativity, leadership skills and ability to work in Team.

PSO6: Develop leadership qualities, business skills and managerial competencies blended with societal concern among the stakeholders.

PSO7: Inculcate skills essential for managers i.e, decision making skills, leadership skills, communication skills and team working abilities.

PSO8: Inculcate an attitude of compassion towards fellow beings, commitment towards work and sense of social purpose among students for becoming responsible citizens.

PSO9: Develop critical thinking, analytical, problem solving skills and also equip them with the ability to identify and evaluate relevant information for decision-making.

Semester - I

Code	Subjects
IM-101	Principles and Practices of Management
IM-102	Financial Accounting
IM-102B	Interpersonal & Organisational Behavior
IM-103	Business Mathematics-I
IM-104B	Fundamentals of Computer and Web Technology
IM-106D	LanguageProficiency-I (English)

IM-101Principles and Practices of Management

Course Outcomes:

CO1: Gain an understanding of the functions and responsibilities of the manager, and providing them with necessary tools and techniques to be used in the performance of managerial job.

CO2: Examine the management theory with corresponding opportunities for application of these ideas in real world situations.

CO3: Understanding the managerial functions of Assessing, Planning, Organizing, and Controlling. Both traditional and cutting-edge approaches are introduced and applied.

CO4: Understanding implications of managerial action and inaction.

Course Contents

1. Concept of Management: Functions and Responsibilities of Managers, Fayol's Principles of Management, Management Thought; the Classical School, the Human Relations School, Systems theory, Contingency Management, Developing Excellent Managers.
2. Planning: Nature and Purpose of Planning, the Planning Process, Principles of Planning, Types of Planning, Advantages and Limitations of Planning.
3. Concept and Nature of Objectives: Types of Objectives, Importance of Objectives, Setting objectives, Management by Objectives (MBO) Benefits and weaknesses of MBO.
4. Strategies and Policies: Concept of Corporate Strategy, formulation of Strategy, Types of Strategies, Types of Policies, Principles of formulation of Policies, Decision Making Process, individual Decision Making Models.
5. Organizing: Nature and Purpose of Organizing, Bases of Departmentation, Span of Management, Determinants of Span of Management, Line and Staff Relationship, Line-Staff Conflict, Bases of Delegation, Kinds of Delegation, Delegation and Decentralization, Methods of Decentralization.
6. Controlling: Concept and Process of Control, Control Techniques, Human Aspects of Control, Control as a feedback system, Feedforward Control, Preventive Control, Profit and Loss Control, Control through Return on investment, the Use of Computer for Controlling and Decision Making, the Challenges created by IT as a Control Tool.
7. Case studies: one case in each unit.

Books

1. Harold Koontz, O'Donnell and HeinzWeihrich, "**Essentials of Management"**, New Delhi, Tata McGraw Hill, 1992.
2. R. D. Agrawal, "**Organization and Management**", New Delhi, Tata McGraw Hill, 1995.

Suggested Readings

1. Harold Koontz, HeinzWeihrich, "**Management: A Global Perspective"**, New Delhi, McGraw Hill, 10th Ed., 1994.
2. Robert Krietner, "**Management",** Houghton Miffin Co., 7th Ed., 1999.

IM-102Financial Accounting

Course Outcomes:

CO1: To acquaint students with concepts of accounting and help them to acquire the ability to develop and use the accounting and system as an aid to decision making.

CO2: To develop an insight about the meaning of basic accounting terms related to accounting, business management and finance.

CO3: Identify how accounting serves as a basis for careers, and the tasks associated with various accounting occupations.

CO4: Master the ability to apply the accounting cycle for different types of businesses.

Course Contents:

1. FUNDAMENTALS OF FINANCIAL ACCOUNTING: Meaning and definition of accounting, Need and functions of accounting, users of accounting information, importance and limitations of accounting, Relationship of accounting with other disciplines, Accounting Principles- Concepts and Conventions, An introduction to Accounting Standards and US GAAPs
2. DOUBLE ENTRY SYSTEM OF ACCOUNTING-I: Concept and definition, accounting cycle, Process of accounting, various steps in DES a/c, Journal, Concept and importance, types of A/Cs, rules of accounting, process of journalizing, Numerical problem.
3. DOUBLE ENTRY SYSTEM OF ACCOUNTING-II: Ledger, Concept and definition, process of ledger posting, the concept of trial balance and its preparation, Numerical problem.
4. DOUBLE ENTRY SYSTEM OF ACCOUNTING-III: Concept of final A/Cs, their need and necessity, preparation of final A/Cs without adjustments, adjustments in final A/Cs, need and necessity, final A/C with adjustment, Numerical problem.
5. An Introduction to Subsidiary Books, Cash Book and its types, Preparation of various types of Cash Books.
6. Bank Reconciliation Statement: Concept, Causes and Need, Reconciliation Process, Numerical Problems.
7. Depreciation Accounting: Concepts and Numerical

Books:-

1. Principles of Accounting by R.L. Gupta & V.K. Gupta, S. Chand Publication
2. Principles of Accounting by T.S. Grewal,
3. Financial Accounting by S.N. Maheshwari, Vikas Publishing House Pvt. Ltd.

IM-102B Interpersonaland Organisational Behaviour

Course Outcomes:

CO1: Understand Evolution of Organisation Behaviour in terms of cognitive, behavioristic and social cognitive aspects.

CO2: Understanding and application of factors affecting motivation with its theories beneficial for today's competitive environment today.

CO3: Understand factors affecting Organisational behaviour shaping Personality, Perception and Learning processes of employees.

CO4: Understand Interpersonal Processes and Behaviors, Team Development, Foundations of Group Behavior and Group Dynamics, Developing Work Teams, Team Effectiveness & Team Building for Organisational benefit.

CO5: Knowhow of Organisational systems and Organisational change process, factors affecting change and its coping mechanism.

CO6: Understanding and application of Contemporary theories of leadership, Johari Window, Transactional Analysis and Success stories of today's Global and Indian leaders.

Course Contents

1. Introduction:
   a) Organization: Concept, Features, Types and Significance;
   b) Organizational Behaviour: Concept and Features; Organisational Behaviour Models: Autocratic, Custodial and Supportive.

2. Individual Behaviour in Organisation:
   a) Personality: Meaning and Determinants. Personality and Behaviour.
   b) Perception: Meaning and Factors Affecting Perception, Application of Perception in Organisational Behaviour.
   c) Attitude: Meaning and Features; Factors Affecting Attitude Formation.
   d) Values: Meaning, Types and Sources.

3. Motivating Behaviour
   a) Motivation: Meaning and Theories of Motivation – Maslow's Needs Hierarchy Theory, Herzberg's Two Factor Theory and McGregor's Theory X and Y.
   b) Learning: Concept, theory and application.

4. Group Behaviour in Organisation:
   a) Group: Concept, Reasons of Group Formation, Types of Groups, Theories of Group Formation: Propinquity Theory and Homan's Interaction Theory, Group Cohesiveness.
   b) Work-Team: Meaning and Types of Teams.
   c) Leadership: Concept and Importance; Styles of Leadership; Leadership Theories: Charismatic and Behavioural.

5. Organisational Conflicts:
Concept, Stages of Conflicts, Issues involved in Conflicts, Classes of Conflicts, Modes of Handling Conflicts.

6. Organisational Change:
Concept and Nature; Forces of Change, Resistance to Change, Management of Change.

7. Case studies: Minimum one case based on each unit.

Books

1. Fred Luthans: Organisational Behaviour
2. W. L. French and C. L. Bell: Organisational Development: Behavioral Science Interventionsfor Organisation Improvement
3. H. Schein: Organisational Psychology
4. R. Kreitno, R. A. Kinioki: Organisational Behaviour
5. S. P. Robbins: Organisational Behaviour
6. H. J. Arnold & D. C. Fieldman: Organisational Behaviour
7. K. Davis: Human Behaviour at Work: Organisational Development
8. U. S. Sekaran: Organisation Behaviour: Text and Practice

IM-103Business Mathematics-I

Course Outcomes:

CO-1: Understanding types of sets and different applications.
CO-2: Solve the problems related to simple interest, Compound interest and depreciation.
CO-3: Understanding the concept of determinates and solves the problem using cramer's method and finds the value of different variable.
CO-4: Demonstrate knowledge of types of matrix and solve the probe the business applications using inverse method.
CO-5: Solve the different types of problems using differentiation
CO-6: Analysis the profit function, cost function, revenue function using maxima minima and application of derivatives.

Course Contents:

1. **SET** -Set theory, types of sets, applications, set theorems (De-morgains law)
2. **Simple Interest and Compound Interest** -Introduction and its business applications, calculation of amount, principle, rate of interest.
3. **Profit, Discount** -Appreciation and depreciation, loss, percentage, profit maximization in economics.
4. **Determinants** -Types, application, determinant arithmetic minor, cofactor, Cramer's rule
5. **Matrix** - Solution of linear equation by irreverse method, I/O analysis, Rank & order of matrix, types of matrices, matrix arithmetic and algebra.
6. **Differentiation –I** -Limits, continuity, elementary theorems of differentiation, types of derivatives.
7. **Differentiation –II** -Maxima, minima, partial differentiation, elementary calculus and its application in business, economics and finance.

Text Readings :

1. R. Jayprakash Reddy and Y. Mallikarynna Reddy, "**A Text book of Business Mathematics"**, New Delhi, Ashish Publishing House, 2002
2. K. B. Dutta, "**Matrix and Linear Algebra"**, New Delhi, Printice Hall of India 1999.

IM-104B Fundamentals of Computer and Web Technology

Course Outcomes:

CO-1: Demonstrate knowledge of generation of computer and input output devices with the block diagram of computer.
CO-2: Understanding the types of memories and operating system.
CO-3: Understanding the function of MS-Word by using different functions.
CO-4: Performing working with MS-Excel.
CO-5: Working with MS-PowerPoint including multimedia, graphics and special effect.
CO-6: Demonstrate knowledge of internet and service used in internet.

Course Contents:

UNIT 1:Introduction to computer: Definition/characteristics of computers, advantage and limitation/elements/classification of computer, computer architecture- block diagram, computer language, number system, Memory and types. Operating System and its types.

UNIT 2 : MS Word and MS Excel : MS Word application window – Toolbars – Creating, Saving and closing a document. Different types of Tab. Creating and Editing data in worksheet, charts and graphs, formulas and its application in Ms excel.

UNIT 3 :**MS Power Point and MS Access :** MS Power point window – Menus and Tool bars. Creating presentations through Auto content wizard, Templates, animations, Slide Master. Introduction of MS Access, Data, Information, Database, File, Record, Fields. Features and advantages of MS Access. Application of MS Access using Tables, Forms, Queries and Reports.

UNIT 4: Internet and Network: Networking and its types (LAN, WAN, MAN topologies) , Internet and its features, services and protocol, browsers, www, DNS, websites, search engines.

UNIT 5: HTML: Scripting in HTML- Classification of Tags - Use of Padded Tags - Use of unpadded tags - Formatting Tags - Meaning of Forms - Uses of Forms -Creation of Tables - Meaning of Frames - Creation of Frames - Graphics in HTML - Web Designing Principles and Issues.

UNIT 6: Introduction to computer graphics and multimedia: Introduction, advantages and applications of computer graphics, Types of graphics(Bitmap& Vector graphics), types of packages of making and animating computer graphics. Introduction, multimedia in entertainment, multimedia in software training, multimedia in education training, stream of multimedia.

UNIT 7: Dynamic webpage through HTML: Advanced HTML Authoring: Using frames. Cascading Style sheets.. Working with active content. Design and Development of different types of Web Page(student entry form, sales invoice, library etc.)

Recommended Books:

1. Information technology by Sushila Madan, Taxmann Allied Services (P) Ltd.
2. Information Technology for management by Ramesh Behl, Tata Mc Graw Hill Education Pvt. Ltd.
3. Fundamentals of Information Technology. (Text Book) by Alexis and Mathews Leon, Vikas Publication
4. Multimedia systems by John F Koegel Buford, Pearson publication.
5. Multimedia Communications (Application, networks, protocols and standards) by Fred Halsall, Pearson publication.
6. Computer Graphics by Donald Hearn and M. Pauling Baker, Pearson publication.

IM-106DLanguage Proficiency-I (ENGLISH)

Course Outcomes:

CO1: Develop their ability to communicate in written mode with correct usage of English grammar.
CO2: Enhance their vocabulary and grammatical forms of English to use in specific communicative contexts.
CO3: Develop the speaking ability in English- in terms of both fluency and comprehensibility.
CO4: Develop competence in the four modes: writing, speaking, reading and listening.
CO5: Gain an understanding of script writing, various motivational, leadership and problem solving stories for application of these ideas in real world situations.

Course contents:

1. **Vocabulary Building: -**Antonyms, synonyms, prefixes, suffixes, article prepositions, tenses, worksheets, reading practice, hearing.
2. **Defining and describing: -**Difference between defining and describing from the language point of view, Student will define simple day-to-day things, places, persons, devices, tools etc. and also describe them (Students will be given home assignments in vocabulary/definitions & descriptions. They will collect and paste in their journal minimum 2 sample passage of style/ register and analyze them)
3. **Writing different types of paragraph: -**Structure of para- topic sentence, elaboration, explanation, illustrations etc., para of comparison, contrast, argumentative para, and descriptive para.
4. **Scrape book: -**Concept, usefulness and relevance, students will prepare a scrap book on a topic of their interest with the help of the teacher.
5. **Writing script for comparing a program: -**Various functions of the college, festivals and other public functions.
6. **Reading and review:-**Reading and review of 10 short stories (motivational, inspiring, problem solving, leadership etc. to be provided by the faculty in the beginning of the session)
7. **Grammar& Vocabulary -** Parts of Speech- Noun, Adjective, Verb, Adverb, Preposition, Pronoun, Conjunctions, Interjections, Determiners, Articles, Phrasal Verbs, Subject & Verb Agreement, Tenses, New Words (Compound words, Eponyms, Pejorative words, Loaning), Punctuations, Antonyms & Synonyms, Prefixes & Suffixes

Suggestions for Faculty:
The teacher will prepare a need-based list of words and students will be encouraged to add to it.
The teacher will help students acquire language through language games, quiz, pair/group activities and creating situations in the classroom so as to enable them to collect and use appropriate words, proverbs, phrasal verbs etc. accordingly. Teacher will encourage students to listen to/ watch various programs on TV/radio to observe the role of the anchor/compare and make them talk about her/his language skills.

Books:

- N.Krishnaswamy, Modern English (Macmillan, India)
- Bhaskaran and Horsburgh, Strengthen Your English (OUP)
- Kane Thomas, The New Oxford Guide to Writing (OUP)
- Tikoo and Shashikumar, Writing with a purpose (OUP)

Semester – II

CODE	Subjects
IM-203	Cost Accounting
IM-204A	Business Mathematics-II
IM-210B	Programming Using C++
IM-214	Business Law
IM-216A	Business Statistics-I
IM-219	Business Communication

IM-203 COST ACCOUNTING

Course Outcomes:

CO1: Understand the term cost, types of cost.
CO2: Students will learn the elements of cost and how to value them.
CO3: Students will acquire knowledge of the cost procedure for different industries
CO4: Students will be able to identify possible inefficiencies or areas neccessary for improvement
CO5: They will also have knowledge on preparing of cost sheets.
CO6: Students skills on cost reduction and cost control will be enhanced
CO7: Students will be able to do cost audit

Course Content-

1. Fundamentals: Cost Accounting- Meaning, Objective, Advantage and importance, Concepts and Classification of cost, Cost accounting, as compared with Financial and Management Accounting.

2. Elements of Cost-Materials: Meaning and Classification, Labor: Meaning and Classification, Overheads: Meaning and Classification

3. Unit or Output Costing—Costing Procedure, Items excluded from cost, Preparation of Cost Sheet, Numerical Problems: Estimated cost sheets, Quotation and tenders etc.

4. Contract costing – Features of contract costing, Contract costing procedure, Special points in contract costing. Numerical problems: Incomplete Contracts.
   Job & Batch Costing- Difference between contract and Job costing, Job costing procedure, Batch costing procedure, Economic batch quality

5. Process Costing-- Essential characteristics of process costing, Process costing Procedure, Process losses & Wastages, Process gains & Effectiveness. Numerical problems: Partial sale of production, Inter-process profits, etc.Various methods of absorption of joint costs. Numerical Problems.

6. Misc. costing methods—Uniform costing, Operating costing,

7. Miscellaneous—Cost reduction & Cost control, Cost audit, Recent trends in cost accounting.

Books—

- Cost accounting- Principles & Practice by M.N. Arora, Vikas Publishing House Pvt. Ltd.
- Practical Costing by Khanna, Pandey, Ahuja &Batra, S.Chand Limited.
- Practical Costing by P.C.Tulsian, Sangam Books Limited.

IM-204A Business Mathematics-II

Course Outcomes:

CO1: Understanding the Arithmetic progression and geometric progression and solve the problems.
CO2: Introduction of need and classification of different types of models.
CO3: Solve the different types of problems using integration.
CO4: Solve the different types of Business Applications using integration.
CO5: Solve the problems related to linear and homogenous equation.
CO6: Solve the problems related to first order second order and nth order.

Course Content

1. **Progressions:** Arithematic Progression, Geometric Progression, Harmonic Progression and their business applications.
2. **Introduction to mathematical modeling:** Need and classifications of different types of model (Through Differential equation of first order and second order, through integral and partial differential equation, through calculus, through algebra, through graphs, through mathematical and dynamic programming taking example of atleast one model of each type)
3. **Integration- I:** Introduction to Integration, Properties of Integration, Methods of integration and substitution, Integration by parts. Business Applications.
4. **Integration – II:** Integration of rational functions, Substitution by partial fraction, Logarithmic, exponential, trigonometric integrals, Definite integral. Business Applications (Consumers and Producers surplus.)
5. **Diff.Equation-I:** Linear and Homogenous equation of first order and first degree, Linear equation of second order and first degree, business applications.
6. **Diff.Equation-II:** Linear difference equation of first/second order with second/third degree and its business applications.
7. **Differential Equation-I:** Partial differential equation of first order, second order and nth order and its business applications.

Book

- Mathematical Modelling by JNKapur, New Age Publication.
- Mathematics for Economists by Mehta- Madnani, S.Chand Publication.
- Mathematics Volume II by RD Sharma, Dhanapath Rai Publication.

IM – 210B PROGRAMMING USING C++

Course Outcomes:

CO1: Demonstrate knowledge of generation of C & C++ Variables and constant.
CO2: Demonstrate knowledge of generation of C programming And C++ programming.
CO3: Understanding the types of operators used in programming.
CO4: Construct the program related to the Arrays.
CO5: Understanding the concept of class program and used in the programming.
CO6: Understanding the pointer declaration and different types of operation with pointer

Course Content

1. **Programming fundamentals:** -Introduction to C. Variables. Types. Constants. Declarations. Expressions. Assignments. Operators. Statements. Iterative Instructions.
2. **Object Oriented Programming** -Introduction to OOP - Meaning of Object - Meaning of Class – LOOP, characteristics: Creation of new Data Types, Giving importance to Class, Inheritance, Encapsulation, Abstraction, Polymorphism, Operator Overloading, Function Overloading, Function Defining, Software Reusability.
3. **C Versus C++** -Programming with C++: General forms of a C++ programme, I/O with cout and cin, different operators, scope resolution operator, Data types, For while, do-while, if-else, switch and conditional statements, Unary Operators - Increment Operator (++), Prefix Notation, Postfix, Notation, Decrement Operator (--). Conditional Constructs - Switch .Case, Construct, Break Statement, Default Keyword, Conditional Operator, Examples on Programming Constructs.
4. **Arrays** -Introduction to Arrays - Declaration of Arrays - Different Types of Arrays : - One Dimensional Array, Two Dimensional Array. Array Examples on Variables – Array Examples on Constants.
5. **Class program:** - Classes and objects: structure and classes, unions and classes, constructors and destructors, Automatic, external and static data members and member function.
6. **Important feature of C++** -Recursion : Definition of recursion leading to recursive programmes. Some computing best described recursively.
   Functions : Function definition. Statement return. Exit statement. Functions of type void. Declaration and definition. Internal and external variables. Scope. Blocks. Constructor, inheritance, polymorphic.
7. **Pointers and structures :** -Address of a variable. Declaring pointers. Operations with pointers. Pointers as function arguments. Address of an array. Address of a string. Pointers to functions. Dynamic memory allocation. Unions.

BOOKS

- Robert Lafore, “Object Oriented Programming in Turbo C++”, Galgotia Pub. Pvt. Ltd., New Delhi, 2000
- Herbert Schildt, “C++ : The complete reference”, Tata McGraw Hill Publishing Company Ltd., New Delhi, 1999
- D. Ravichandran, “Programming with C++”, Tata McGraw Hill Pub. Co. Ltd., New Delhi, 2000
- E. Balagurusamy, “Object Oriented Programming with C++”, Tata McGraw Hill Pub. Co. Ltd., New Delhi, 2000
- BajarneStrustrup, “The C++ Programming Language”, Addison-Wesley, New York, 1995
- Scott Meyers, “Effective C++”, Addison-Wesley, New York, 1999
- Walter Savitech, “Problem Solving with C++”, Addison-Wesley, New York, 1996

IM-214 BUSINESS LAW

Course Outcomes:

CO1: The learners/Students would gather the knowledge about the applicability of Law to Individual, business.
CO2: Gain command over basic fundamental principles of Contract.
CO3: They will more vigilant towards the laws in banking, SEBI and other legal matters.
CO4: More developed approach towards various kinds of business forms.
CO5: Enhancement in problem solving approach towards litigations.

Course Contents:

1. **The Indian Contract Act, 1872 -**General principles of contract, classification of contract and key terms, Essential elements of a valid contract viz., offer & acceptance competence of contracting parties, free consent, consideration, legality of object and consideration, void agreements, Performance of contracts, discharge of contract, and breach of contract remedies for breach of contract, Specific contracts viz, contingent contracts, quasi-contracts, contracts of indemnity and guarantee, contract of bailment, contract of agency.
2. **The Sale of Goods Act, 1930 -**Contract of sale, essentials of contract of sale, conditions and warranties, Right of unpaid seller.
3. **The Indian Partnership Act 1932 -**General Principles- Meaning of partnership, essential features of partnership, types of partners, Formation of Partnership-Partnership deed, registration of partnership firms, position of a minor partner, duration partnership firm, rights of outgoing partner. Rights and Liabilities of Partners- Relations of partner with each other, rights of partner, duties of partners, relation of partner with third parties.
4. **The Companies Act, 2013 -Company-** Meaning and definition, characteristics of joint stock companies, types of companies difference between private and public limited companies. **Promotion and incorporation of companies**-Promotion, Incorporation of companies, promoters: meaning and importance, process of incorporation: preparation contents and importance of various documents to be filed, Memorandum of Association, Articles of Association, certificate of commencement of business. **Memorandum of Association and Articles of Association**- Contents and alteration. **Capital of the company**- Share and its types, Debentures and its types, difference between shares and debentures, share certificate, share warrant and stock. **Prospects**- Meaning and definition, contents and registration of prospectus, issue and allotment of shares. **Management of Companies**- Board of Directors: Appointment, Qualifications and disqualification, powers, duties and position of directors, removals of directors. **General Principles of Meetings**- Statutory Meeting, Annual General Meetings, Extra-ordinary General Meetings, Board Meetings.**Winding-up of Companies**-Meaning and types of winding-up, provisions relating to winding-up.
5. **The Negotiable Instruments Act, 1881 -**General Principles- Meaning of negotiable instrument, types of negotiable instruments, ambiguous instruments, maturity of negotiable instrument, payments of negotiable instruments, dishonor of negotiable instruments, provisions of sections 138 to 145.
6. **Foreign Exchange Management Act, 1999 -**General Principles- Meaning & definition of various important provisions Regulation & Management of Foreign Exchange- Current account transaction, capital account transaction. Provisions related to authorized person, Reserve Bank's power to issue directions to authorized person.
7. **The Consumer Protection Act, 1986 &An overview of Misc. Laws Related To Business -** General Principles- Meaning & definition of various important terms. Rights of Consumers Nature & scope of remedies available to consumers. The I.T. Act,2000, SEBI Act ,1992, , The competition Act,2002,The LLP Act,2008,Intellectual Property Related Laws,

Environment Related Laws.

Books:

- Mercantile Law by S.S. Gulshan
- Elements of Mercantile Law by N.D. Kapoo
- Business Legislation for Management by M.C. Kuchhal
- Business Law by S.K. Agrawal
- Legal Aspects of Business by Akhileshwar Pathak

IM—216A Business Statistics-I

Course Outcomes:

CO1: Understand the Importance of Statistics in decision-making process.

CO2: To develop, present and interpret the graphical data and making business reports.

CO3: How to calculate and apply measures of central tendencies (Mean, median, mode) and measures of dispersion (standard deviation and mean deviation) for grouped and ungrouped data analysis.

CO4: How to apply discrete and continuous probability distributions to various business problems.

CO5: Compute and interpret the results of Simple and Bivariate Correlation Analysis and finding the intensity of bonding between two or more than two variables.

Course Content:

1. **Introduction:** Definition/Meaning and Scope of Statistics, Functions and Applications of Statistics, Role of Statistics in decision making process, Limitation of Statistics. Basics of Population (Parameter) and Sample (Statistic).
2. **Classification, Tabulation and Frequency Distribution:** Introduction, Role and Functions of Classification, Rule for Classification, Tabulation: Meaning and Importance, Types of Tabulation, Frequency and Cumulative distribution, Graphical Analysis of all types of charts.
3. **Central Tendency:** Introduction, Measures of Central Tendies (Mean, Median, Mode, GM, HM) and their data analysis, Concept of Partition Values (Quartiles, Decile and Percentile and N-tiles).
4. **Measures of dispersion:** Meaning, Scopes and Application of Quatile deviation, Mean deviation, Standard Deviation, Variance, Coefficient of Variation, Standard Error and Probable Error.
5. **Skewness, Moments and Kurtosis:** Introduction, Measures of Skewness, Moments and Kurtosis (alpha, beta and gamma coefficients).
6. **Correlation:** Meaning and Scope of Correlation, Types of Correlation, Measures of Correlation (Karl Pearson, Spearman's Rank Correlation and Method of Concurrent Deviation) and concept of coefficient of Determination.
7. **Probability and Distribution:** Random Variable, Types of Probability Distribution (discrete and Continuous- Binomial, Poisson and Normal Distribution) and their applications in business.

Books

- Business Statistics: SC Gupta
- Business Statistics: JK Sharma
- Statistics for management: Richard I. Levin, David S Rubin

IM 219 BUSINESS COMMUNICATION

Course Outcomes:

CO1: Nurture students into well-balanced and positive thinking human beings. Developing students into professionals, who are capable of facing new challenges and becoming the winners in Life.

CO2: Enhancing Communication skills by practicing functions, processes and models.

CO3: Understanding of Effective Communication, Barriers to Effective Communication, order, advice, suggestions, motivation, persuasion, warning, education, raising morale, conflicts and negotiation, group decision making.

CO4: Practicing of various activities using dimensions of Communication- Upward, Downward, Lateral/Horizontal, Diagonal, grapevine, consensus, Channels of Communication- Formal, Informal; Patterns of Communication; Media of Communication-Verbal, Nonverbal.

CO5: Understanding the importance and usage of Listening skills by various interactive session developing students into a perfect personality in Interpersonal Communication like Transactional Analysis, Johari Window.

CO6: Understanding and practicing complete knowhow of Business Correspondence its Layout, planning, inquiries and replies, complaints, follow up, circulars, notices, goodwill letters, applications for employment, Report Writing, Public Speaking: Speeches and presentations, Interviews, Professional use of the telephone.

Course Contents

1. **Communication**: Meaning, nature, definitions, features, processes, models, functions.
2. **Objectives of Effective Communication**: information, order, advice, suggestions, motivation, persuasion, warning, education, raising morale, conflicts and negotiation, group decision making
3. **Dimensions of Communication**: Upward, Downward, Lateral/Horizontal, Diagonal, grapevine, Consensus.
4. **Channels of Communication** (Formal and Informal); Patterns of Communication; Media of Communication (Verbal and Nonverbal); Barriers to Effective Communication; Listening
5. **Interpersonal Communication**: Transactional Analysis, Johari Window
6. **Business Correspondence**: Layout, planning, inquiries and replies, complaints, follow up, circulars, notices, goodwill letters, applications for employment
7. **Case Studies**

Books

- Business Communication: K.K. Sinha
- Business Communication: M. V. Rodrigues
- The Art of Effective Communication: Margerison
- Effective Communciation: Asha Kaul
- Managing Time: David Fontana
- Managing Stress: David Fontana

Semester-III

Code	Subject
IM-301C	Marketing Management
IM-302	Management Accounting
IM-310B	Language Proficiency-II (French)
IM-314	Managerial Economics
IM-315	Business Statistics II
IM-316	RDBMS

IM 301CMARKETING MANAGEMENT

Course Outcomes:

CO1: To understand the importance and concept of core marketing orientation, understanding Customers and market place.
CO2: Description and detailed understanding of the environmental forces that affect the Company and customers.
CO3: To develop an understanding of the concept of Consumer Behaviour.
CO4: Understand the major bases for Segmentation, Targeting and Positioning concepts
CO5: Implications of the concept of Product Life Cycle and its strategies.
CO6: Integrate the theoretical concepts of 4Ps, i.e.Product, Pricing, Place and Promotion and its Application in case understanding
CO7: Introduction to the new concepts of Marketing.

Course Contents

1. **Marketing Concepts**: Customer Value and Satisfaction, Customers Delight, Conceptualizing Tasks and Philosophies of Marketing Management, Value chain, BCG Matrix,
2. **Scanning the Marketing Environment:** Purpose of studying marketing environment, Macro- environment ,Micro- environment, Internal environment
3. **Market Segmentation, Targeting, Positioning:** Market segmentations, levels of market segmentations, patterns, procedures, requirement for effective segmentation, evaluating the market segments, selecting the market segments, tool for competitive differentiation, developing a positioning strategy.
4. **Marketing Research:** Meaning andMarketing Research Process.
5. **Consumer Behaviour:** Meaning, Factors affecting buying behavior, Process of consumer buying behavior
6. **Elements of Marketing Mix: -** Product Decision: Objectives, Product classification, Product-Mix, Product life cycle strategies, equity, challenges, repositioning branding, introduction and factors contributing the growth of packaging, introduction of labeling. Pricing Decision: Factors affecting price, pricing methods and strategies. Distribution Decisions: Importance and Functions of Distribution Channel, Considerations in Distribution Channel Decisions, Distribution Channel Members. Promotion Decisions: A view of Communication Process, developing effective communication, Promotion-Mix elements.
7. **Emerging Trends in Marketing**: An introduction to Internet Marketing, Multi level marketing, Rural marketing, Green marketing, CRM & EVENT marketing.

BOOKS

- Philip Kotler "**Principles of Marketing Management",** New Delhi: Prentice Hall of India, Millennium Edn. 1999.
- Willam J. Stanton, Michael J. Etzel and Bruce J. Welker, "**Fundamentals of Marketing Management",** New York: Mc Graw Hill, 10thEdn., 1995.
- Philip Kotler, "**Marketing Management,Planning Analysis and Control"**, New Delhi, Prentice Hall of India, 9thEdn., 1998.

IM-302 MANAGEMENT ACCOUNTING

Course Outcomes:

CO1: Understanding of the principles of Management accounting
CO2: Significance of Management Accounting in the planning and control functions of management.
CO3: Understanding use of Financial ratios in financial decision making.
CO4: Financial Statement analysis and it use.
CO5:Preparation of budgets
CO6: Understanding the concept and use of Fund flow and Cash flow statements.
CO7:Understanding the concept and use of Standard Costing and Variance Analysis.
CO8: Impart knowledge of recent trends in management accounting.

Course Contents

1. **Management Accounting-Introduction: -**The Nature of Management Accounting, Function of Management Accounting, Financial, Cost & Management Accounting, Need, objectives and importance, Introduction to financial Statement,Balance sheet, Profit & Loss account, Relationship between Balance sheet and Profit & Loss account.

2. **Financial Analysis-I: -**User of Financial Analysis, Types of ratios, Liquidity Ratio, Activity Ratio, Profitability Ratio, Leverage Ratio, Comparative statement analysis, Inter firm analysis

3. **Financial Analysis-II:-**Fund flow statements, Concepts and its preparation, Cash flow statements, Concepts and its preparation.

4. **Cost Volume Profit Analysis**

5. **Budgetary Control -**Meaning, types and purpose of budget, Preparation of budgets, Budget administration, Essentials and advantage of budgeting

6. **Standard Costing and Variance Analysis -**Concept and types of cost standards, Components of standard C", Material Labour and overhead standards, Utility and limitation of standard costing, Significance of Variance analysis, Variance computation.

7. **Recent trends in management account: -**Nature of responsibility accounting, Requirement of effective responsibility accounting, Cost control through responsibility accounting, Management Reporting.

BOOKS

- Management accounting a planning & approach by I.M Pandey, VikasPublishing House Pvt. ltd. (Third Revised Edition)
- Management Accounting by M.Y.Khan&P.K.Jain, Tata Mc Graw Hill Pvt. Ltd.
- Managerial Accounting by Louderback& Holmen, Thomson/South-Western

IM- 310B LANGUAGE PROFICIENCY-II (FRENCH)

Course Outcomes:

CO1: Linguistic Skills-Students will learn basic French grammar and vocabulary

CO2: Communication Skills- Students will be able to introduce oneself and converse spontaneously in given social settings.

CO3: Civilization Skills – Students will get familiarize to some aspects of France, its people and culture.

Story: A spring time in Paris and an adventure in Burgundy:

Lesson 1: Meeting and introducing each other
Lesson 2: Striking a friendship
Lesson 3: Expressing one's likes and dislikes
Lesson 4: Expressing agreement and disagreement
Lesson 5: Expressing surprise
Lesson 6: A country side house
Lesson 7: Lunch at Broussace

Vocabulary: Profession and nationalities
Day-to-day life and hobbies
Physical and psychological descriptions
Cardinal numbers
Lodging and getting food
Clothes and colors

Grammar: Definite and Indefinite Articles
Gender and no. of nouns and adjectives
Masculine and feminine forms
Interrogative and negative forms
Conjugation of verbs in present tense
Portative articles
Demonstrative and Possessive adjectives

Phonetics

Intonation
Linking words
Oral and nasalized vowel sounds
Semi vowels

Communication

Meeting and getting to know each other
Inviting someone and replying
Describe people
Giving order and expressing obligation
Requesting and ordering

Civilization

Paris: Monuments and Public places
The life of four Parisians from different professions
The French Region: The Burgundy
Daily Life in Countryside

IM-314 Managerial Economics

Course Outcomes:

CO1: Understands what Economics is all about
CO2: Know about demand & supply and how is the equilibrium obtained
C03: Finding out most efficient production and Cost level in both short and long run
CO4: Finding out profit maximizing level of price, output in different forms of markets
CO5: Understand the modern day objectives of the firms

Course Content

1. Introduction - Managerial economics – Meaning, definitions, importance, Significance, scope of managerial economics, Related disciplines & managerial economics.

2. Demand concept- Demand: - Concept, Types, Function, Cardinal Utility Approach, Ordinal Approach, Law of Diminishing managerial utility, Elasticity of Demand, Demand Forecasting

3. Production function - Production Analysis, Law of variable Proportion, Return to scale, Isoquants & least cost combination of inputs.

4. Cost concept - Cost: - Concept & Types, Short Run and Long run cost Analysis

5. Market Structure:-Price determination under different markets: - Perfect competition, Monopoly, Monopolistic competition, Oligopoly

6. Theory of firm: -- Managerial theory of firm: Profit and Sales Maximization, Managerial Discretion.

7. Minimum three case studies based on above syllabus.

BOOKS

- Modern Micro Economics - Koutsoyiannis
- Managerial Economics Peterson &Levis
- Principles of Economics by Karle Case &. Ray C fair
- Managerial Economics - P.L. Mehta
- Micro Economics – Sundaram&Vaish

IM-315 Business Statistics –II

Course Outcomes:

CO1:Can apply, analyze and interpret the data in the Research and can predict the behavior the population based on the sample study.

CO2: Are able to analyze the market behavior using price and quantity index numbers

CO3: Students are able to interpret, analyze and forecast the increase and decrease of demand and supply and of any other variable using time series concept.

CO4: Students are able to find out missing values and are able to forecast the future value using interpolation and Extrapolation.

CO5: Compute and interpret the results of Simple and Bivariate Regression Analysis for Business- forecasting.

CO6: Perform Test of Hypothesis as well as calculate confidence interval for a population parameter for single sample and two sample cases. Understand the concept of p-values in the SPSS.

CO7: Learn parametric (t-test and z-test and perform ANOVA and F-test) and non-parametric test such as the Chi-Square, kruskalwallis test for Independence as well as Goodness of Fit.

Course Content

1. **Regression Analysis:** Introduction, Types of Regression Models, Methods to determine Regression Coefficients.
2. **Index Number:** Introduction, Types of Index Numbers, Characteristics and Uses of Index Numbers, Methods for construction of Price Indexes, Applications of Index Numbers.
3. **Time Series Analysis:** Introduction, Objective of Time Series Analysis, Time Series Pattern, Components of Time Series, Time Series Model.
4. **Interpolation and Extrapolation:** Introduction, Assumptions, uses; Methods- Graphical and Algebric Methods. Application in business decision making
5. **Testing of hypothesis:** Introduction, One-sample and Two-sample test of hypothesis, Format/Rationale/Direction of hypothesis.
6. **Parametric test & Non-Parametric Test:** Introduction, One-Tailed and Two Tailed Test, Type-I and Type-II error. T-test, F-test (ANOVA) and Z-test. Introduction to Nonparametric Statistics, Chi-Square
7. **Statistical Quality Control:** Introduction, Types of quality control charts, application in quality management (Six Sigma)and acceptance sampling.

Books Recommended:-

- Business Statistics:- S.C. Gupta and Indra Gupta, Himalaya Publishing
- Statistics:- S.P. Gupta
- Business Statistics:- J.K. Sharma, Pearson Publishing
- Statistics:- Sancheti and Kapoor, S. Chand

IM 316 RELATIONAL DATABASE MANAGEMENT SYSTEM

Course Outcomes:

CO1: Provide basic knowledge of relational database management systems.
CO2: Acquaint students to database design, develop database models.
CO3: Understand structured query language as a tool to retrieve data from databases like Oracle, SYBASE, and MYSQL etc.
CO4: Student must understand advance tools of Data Mining and Warehousing.

Course Content

1. **Introduction of DBMS:** -Concepts and features of DBMS, Data, Database, DBMS concept, component of DBMS, physical and logical views, advantages and disadvantages, concept of RDBMS, Database administrator, Database user, characteristics of database approach, database systems, database architecture.

2. **Data Models:** -Conceptual Model, Heirchical Data Model, Network Data Model, Relational Data Model, Object Oriented Model, schemes and instances, DBMS architecture/3-tier architecture/ANSI-SPARC architecture, data independence and interfaces, database languages, procedure for database access, database structure.

3. **ER Model and Normalization:** -E.R. Model, 1NF, 2NF, 3NF, 4NF, basic terminology related to ER- model, Notation used in ER-Diagrams, Strong and weal entity sets, generalization, specialization and aggregation, translating your ER-Model into relational model.

4. **SQL:** -Parts Of SQL, Data Types Used In SQL, Arithmetic & Logical Operators, SQL Conditional Clause DDL, DML,DCL Commands, terminology related to relational model, types of keys, Relational integrity rules, Codd's rules, views and their purpose.

5. **Database Creation:** -Creating Tables, Insert Record Entries & Key Constraints, Creating Views And Indexing, Update, Delete Edit Command Functions, AVG, Min, Max ,Count ,Sum Operations, Query, Sub-Query & Nested Query, rollback, commit and save point, Indexes in SQL, group by and having clauses, subqueries.

6. **Data Resource Management:**-Data Independence & Data Constraints, Centralized & Decentralized Database , Data Warehousing, Distributed Database.

7. **Data Analysis And Technique** -Data Planning & Analysis, Data Mining, DBA (Database Administrator), OLAP

BOOKS

- Theory Lecture: A. Silberschatz, H.F. Korth, "Database System Concepts", MGH Publication.
- Practical Lecture: Introduction To SQL By Ivan Bayross
- C.J. Date, "Introduction To Database Systems".
- B.C.Desai, "Introduction To Database Systems", BPB Publication.
- Rajiv Chopra, "Database Management Systems", S. Chand & Company Ltd.

IV Semester

Code	Subjects
IM-406B	Macro Economics
IM-411	Income Tax
IM-415	Quantitative Techniques
IM-417	Human Resource Management
IM-420	Purchase & Materials Management
IM-421	E- Business Fundamentals

IM- 406B -Macro Economics

Course Outcomes:

CO1: Understand the dynamics of macro-economic environment
CO2: Develop the skill of not only calculating the national income but also be able to interpret the data
CO3: Understand the concept of money and types of money supply
CO4: Know about inflation and its measurements

Course Content:

1. **Introduction:** Macro Economic analysis, Micro and Macro Economics, goals of macroeconomic policies, stock and flow variables, exogenous and endogenous variables, EX- ANTE and EX-POST concepts.

2. **Measurements of Macro Economic Aggregates & National Income Determination** Measurements of Macro Economic Aggregates: National Income and its variants, Real & Nominal GDP, Measures of national products and methods used, National income and Economic welfare, National income in India, its composition, trend & structural analysis, Okun's Law. National Income Determination: National income determination models under open and closed economy, Aggregate demand and supply, Calculation of multiplier, simple investment multiplier, government expenditure, tax, balanced budget and foreign trade multiplier, Super multiplier, limitations of multiplier.

3. **Consumption Savings function & Investment Function** -Consumption & Savings function: Keynes' psychological law of consumption, Post Keynesian income consumption hypothesis, Trends of consumption and savings in Indian economy. Investment Function: Investment, its types, factors affecting investments, MEC and factors affecting MEC, Accelerator principle. Investment trends in Indian economy, measures to stimulate public and private sector investment in India.

4. **Money and Inflation** -Money and Interest Rates: Money and its role, measures of demand and supply of money, money multiplier, interest rate and IS- LM framework. Inflation and Deflation: Types of inflation, Inflationary gap, causes and consequences of inflation, Philips curve, Reflation, Deflation; trends and measurements of inflation in Indian Economy.

5. **Monetary and Fiscal Policies:**Objectives and Instruments of Monetary and Fiscal Policies, Analysis of the policies in Indian Economy, Recent Monetary and Fiscal Policies.

6. **Basic Macro Economic concepts for Open Economy**: Balance of Payments, Current and Capital account, Official reserve account, Balance in BOP, Analysis of India's BOP Position

7. **Business Cycles**: Concept and phases of Business cycles, Monetary and Non Monetary theories of business cycles

BOOKS

- G. Mankiw- Macro Economics
- Dornbusch& Fischer- Macro Economics, 9th Edition
- Fred Gothiel – Principals Of Macro Economics
- Edward Shapiro – Macro Economic Analysis
- Sunil Bhaduri – Macro Economics
- M.C. Vaish – Macro Economics
- M.L. Seth- Monetary Economics

IM- 411 -INCOME TAX

Course Outcomes:

CO1: Understand the practical awareness of direct tax
CO2: Understand the mechanism of taxation
CO3: Acquire the knowledge of tax planning
CO4: Helps in developing investment Decisions
CO5: Understand the legal compliance's towards income tax

Course Content:

1. **Introduction:** Definition of Income, Casual Income, Agricultural Income, Person, Assessee, Previous year, Assessment year, Gross Total Income, Total Income; Exempted Income; Heads of Income, Residential Status & Tax Liability
2. **Computation of Income from Salary**:Meaning & definition, different forms of Salary Allowances, Perquisites, Valuation of allowances & perquisites, Provisions regarding Provident Fund, Entertainment Allowances, Professional Tax
3. **Income from House Property:** Introduction & Important provisions, Types of House Property, Determination of Gross Annual Value, Municipal Tax & Deductions u/s 24, Treatment of unrealized rent & Vacancy period.
4. **Income from Business or Profession**: Meaning, income chargeable under Income Tax (section 28), Deductions in respect of expenses & allowances, Disallowed expenses (excluding special business), Depreciation How to compute profits & gains.
5. **Capital Gain**: Meaning, Items included & types of Capital Gain/Loss. Computation of Capital Gain/Loss. Capital Gain Exempted from Tax. (U/s 54,54B, 54D, 54ED, 54F, 54G, 54H)
6. **Income from Other Sources**: Meaning & types of Income, Allowable & Disallowable Deductions, exempted incomes. Computation of Income, Set off & carry forward of Losses: Set Off of Losses under- same head, other head. Carry forward & set off.
7. Assessment of Individuals: Assessment of Individuals , Assessment of Individuals & tax liability. Procedure for Assessment Advance Payment of Tax.

BOOKS

- Income Tax: Law & Accounts by Dr.H.C. Mehrotra
- Reference Book: Students Guide to Income Tax by Dr. V. K. Singhania

IM- 415 QUANTITATIVE TECHNIQUES

Course Outcomes:

CO1: Understand the practical application of Statistics and Operations Research concept in business and management.
CO2: Identify situations in which linear programming technique can be applied.
CO3: Understanding the conceptual meaning of Simplex and logic of using Simplex and Big M method.
CO4: Identify and formulate a transportation problem involving a large number of shipping routes.
CO5: Understand the features of assignment problems and transportation problems.
CO6: Making distinction between linear programming and dynamic programming approaches for solving a problem.
CO7: Understand the method of assigning different ranks and weights to unequal multiple goals.

Course Contents

1) **Introduction:-** Introduction to Quantitative Techniques, Necessity of Quantitative Techniques in Industry, Scope of QT, limitations and its applications in Management.
2) **Introduction of Linear Programming:** Meaning of linear programming, Mathematical formulation of linear programming problems, assumption, Solution of linear programming by graphical methods.
3) **Simplex Method:** -Maximization problems, Minimization problems (Big M Method), Problem of mixed constraints, Infeasibility. Unbounded, Degeneracy, Duality in linear programming problem.
4) **Transportation Model:** Introduction to the model, Assumptions in the Transportation Model, Formulation and solution of Transportation Model, Variants in Transportation Model (Unbalanced, Maximization, No allocation in particular cell).
5) **Assignment Model:** Definition of the Assignment Model, Mathematical representation of the Assignment Model, Comparison with the Transportation Model, Solution of the Assignment Model, Variations of the Assignment Model (Non square matrix, Maximization, Restrictions on Assignment), sensitivity analysis in the assignment problem.
6) **Dynamic Programming:** Introduction, Distinguishing characteristics of Dynamic Programming, Formulation of Dynamic Programming Problems, Solution of LPP by Dynamic Programming, Applications of Dynamic Programming, Deterministic Dynamic Programming, Probabilistic Dynamic Programming.
7) **Goal Programming:** Introduction, Formulation and Graphical solution of Goal Programming, Applications of Goal Programming.

BOOKS

- Operation Research by V.K. Kapoor
- Quantitative Techniques by N.D. Vohra

IM- 417 -HUMAN RESOURCE MANAGEMENT

Course Outcomes:

CO1: Develop an understanding of the dimensions of the management of Human Resources with reference to HRM policies and practices in India.

CO2: Understand acquisition of Human Recourses by Human Resource planning in evolving small and Entrepreneurial Organisation.

CO3: Identify formulation and essentials of sound HR Policies, Role and Responsibilities of the human resource Managers, process of recruitment and selection along with Administrative, operational and strategic role of HR.

CO4: Understand development of Human Resources through Learning, training and Development and performance Appraisal and application of career and succession planning.

CO5: Understand Maintenance of HR by Job Evaluation, Designing and administering the wage and salary structure, compensation, grievance-handling procedure.

CO6: Identify merging Trends and Challenges in HRM, expanding human capital, Ethics and HRM, HR management competencies and careers – Knowledge of Business organizations.

Course Content:-

1. Human Resource Management: Relevance and spectrum, concept and evolution, Organization of HR Department, Role, Status and competencies of HR Manager, HR Policies. Emerging dimensions in HRM.

2. Acquisition of Human Resource: Human Resource Planning- Quantitative and Qualitative dimensions; job analysis – job description and job specification; Concept and sources; recruitment – selection – Concept and process; test and interview; placement induction.

3. Training and Development: Concept and importance; identifying training and development needs; designing training programmes; role specific and competency based training; evaluating training effectiveness; training process outsourcing; management development systems.

4. Performance Appraisal System: Nature and objectives; techniques of performance appraisal; potential appraisal and employee counseling; job changes - transfers and promotions.

5. Compensation: Concept, policies and administration; job evaluation; methods of wage payments and incentive plans; fringe benefits; performance linked compensation. Maintenance: employee health and safety; employee welfare; social security; grievance handling and redressal.

6. Career planning and succession planning- Concept, need and process of Career planning. Difference between Career planning and succession planning, Concept, process and benefits of both types of planning.

7. Separation process: Turnover, Retirement, layoff, retrenchment and discharge, VRS.

BOOKS:

1. Human Resource Management Principles and Practice, P.G. Aquinas, ISBN : 8125918097. Publication Year : 2011, Edition: First Reprint
2. Personnel Management, ArunMonappa , Mirza Saiyadain, ISBN : 0074622643, Publication Year : 2011,Edition: Second
3. Human Resource Management , V S P Rao, ISBN : 8174464484,Publication Year : 2005, Edition: Second
4. Human Resource Management, Gary Dessler,ISBN : 8131754269,Publication Year : 2012, Edition: Twelfth

IM- 420 PURCHASE AND MATERIALS MANAGEMENT

Course Outcomes:

CO1: Understanding of purchasing and materials management and apply it for making relevant decisions.

CO2: Analyze the Purchasing Activities, Indent Status, Chasing And Follow Up, Transportation, Incoming Inspection, Bill Settlement, Documentation, Right -Price, Time, Method, Mode, Quality, Source And Buyers Sellers Relations

CO3: Need For Vendor Evaluation, Goals Of Vendor Rating, Advantages Of Vendor Rating, Parameters Of Vendor Rating. Settlement of Bill, Accounting, Audit in Materials Management.

Course Contents:

1. **Materials Management:** Objective, Importance, Integrated Materials Management, The role of Materials and Purchase management .Desirable Qualities of Purchase Manager.
   Organization Of Materials Function: Organization Structure Centralized Purchasing, Decentralization, Delegation of Power, Materials and User Department.
2. **Material Planning And Budgeting:** Planning: Advantages, Definition, Planning Approaches to Materials Management. **Financial Aspects In Materials Management:** Role of Finance, Interaction with Materials Holding and Acquisition Cost
3. **Specification Standardization and Codification:** Relevance, Definition, Specification, Advantages and Techniques, Identification, Evolution of Codes, Classification, Methodology, Advantages Of Codification.
4. **Warehousing Management:** Objectives Of Store, Location and Layout, Preservation Of Items, Management Of Receipts, Issue Control Store Documentation, Objective of inventory, inventory cost, inventory control techniques, evaluation of inventory management. ABC, XYZ, VED analysis.
5. **Purchasing Cycle:** Purchasing Activities, Indent Status, Chasing And Follow Up, Transportation, Incoming Inspection, Bill Settlement, Documentation, Right -Price, Time, Method, Mode, Quality, Source And Buyers Sellers Relations.
   Ordering Systems: Purchase Policy, Cash Purchase, Tender System, Rate Of Running Contract, Subcontracting, and Systems Contract Etc.
   International Buying: Why Imports, Import Policy, Classification Of Import, Objective Of Control, Preliminary Formalities, Source Selection, Letter Of Credit, Documentation, Bill Of Lading Custom, Clearance Etc.
   Negotiations: Objectives, Process, Process Factor, Other Parameter, Strategy And Tactics, Qualities Of Negotiator, Process And Guidelines For Negotiation, Negotiation Techniques.
6. **Vendor Rating:** Relevance Of Good Supplier, Need For Vendor Evaluation, Goals Of Vendor Rating, Advantages Of Vendor Rating, Parameters Of Vendor Rating. Settlement of Bill, Accounting, Audit In Materials Management.
7. **Disposal of Obsolete and Scrap Items:** Management Of SOS, Categorization Of Obsolete/Surplus, Reasons For Obsolescence, Control Of Obsolescence And Scrap, Responsibility For Disposal, Disposal Methods.

Books

1] Purchasing and Materials Management – Chitale& Gupta.
2] Purchasing and Materials Management - M.M. Verma.

IM- 421 E-BUSINESS FUNDAMENTALS

Course Outcomes:

CO1: Identify the basic understanding of electronic commerce and electronic business.
CO2: Understand the use of Internet Technology in day to day commercial transactions.
CO3: Differentiate between Traditional Marketing and online Marketing.
CO4: Understand the business models used in online electronic business environment.
CO5: Develop basic understanding of various modes of electronic payment and its infrastructure.
CO6: Know the various security threats and its technological solutions in electronic commerce and electronic business environment.

Course Contents:

1. **Introduction to e-business,** Difference between traditional and e-business, electronic commerce, types of e-commerce, e-business framework, application and network infrastructure, transaction type- B2B, B2C etc.
2. **Models of e-commerce** and its applications, EDI applications in e-business, Value added network, architecture and standards.
3. **E-business models**: Business model ingredients, B2C, B2B model with example, case study related to B2C and B2B.
4. **E-Payment System** and its types and comparison, Token base payment, Smart card, Credit card, Debit Card, etc. design in one of payment system, Risk involved in e-payment system.
5. **Electronic market place** of Buyers and Sellers, Consumer behaviour and markets, advertising and marketing on Internet, online marketing, online advertising and tools of advertising.
6. **Security issues**: Cyber laws, Cyber crimes and security issues, security concept, dimension of security, method, cryptography, encryption description.
7. **Future of e-business and its applications**, e-Tailing, e-Banking, e-HRM, e-Commerce in service sector, e-Enterprise, virtual factory, web-hortal , portal, vortals and strategies of e-business.

BOOKS

1. Electronic Commerce by Ravi Kalakota and B.Whinston, Frontiers of e-commerce, New Delhi, Addisin-Wesley,2000 edition.
2. E-Commerce by Kenneth C Loudon, Pearson Publication.
3. E-business and E-commerce management by Dave Chaffey, Pearson Publication.
4. Ravi Kalakota and M.Robinson , E-Business : Road map for success, New Delhi, Addisin-Wesley,2000 edition.
5. Daniel Amor, The E-Business (R) Evolution, New Delhi, Prentice Hall, PTR, 2000.

Semester - V

Code	Subjects
IM-501A	Financial Management I
IM-503B	Operation Research
IM-506	Marketing Strategies
IM-511	Econometrics
IM-514	Indirect Taxes
IM-515	Project Management

IM- 501A FINANCIAL MANAGEMENT - I

Course Outcomes:

CO1: Understand importance of financial management.
CO2: Importance of time value of money in financial decision-making.
CO3: Measure risk, return, and explain the trade-off between risk and return.
CO4: List the primary sources of capital and incorporate their cost when making investment decisions.
CO5: Understand the working capital management and factors affecting to it.
CO6: Cash management, receivable, inventory management.
CO7: Apply the concepts of financial management to contemporary financial events.
CO8: Concepts of cost of capital and it importance in decision making, WACC understanding etc.

Course Contents:

1. **Financial Management: An Introduction**– Balance Sheet and Profit & Loss statements review, Concept andnature of financial management, financial manager's role, Finance function, Relationship of finance function with other disciplines.
2. **Concept of Value**: Time preference for money, Compounding and discounting techniques.
3. **Management Of Current Asset-I:** Concept and planning of working capital, Permanent and variable working capital, Determinants of working capital; Estimating working capital need, Working Capital finance.
4. **Management Of Current Asset-II:** Management of receivable, Management of inventory (Brief overview).
5. **Management Of Current Asset-III:** Management of cash. Introduction, Motives & objectives of holding cash, factors determining cash needs, Basic Strategies of cash management, Cash budgeting, Numerical Problems.
6. **Sources Of Long Term Funds**: Capital market concept, Shares, Debentures and Term loans.
7. **Cost Of Capital**: Significance of cost of capital, Concept of the opportunity cost of capital, Measurement of specific cost, Computation of overall cost of capital.

BOOKS

- Financial Management by Khan & Jain(5^{th} edition), McGraw Hill Education Private Limited
- Financial Management by I. M. Pandey (10^{th} edition), Vikas Publishing House Pvt Ltd.
- Fundamental of Financial Management; James C Van Horne & John M Wachowicz, Jr, Pearson Education
- Financial Management and Policy; James C Van Horne & Sanjay Dameja, (10^{th} edition) Pearson Education

IM –503B OPERATION RESEARCH

Course Outcomes:

CO1: Understand the practical application of Statistics and Operations Research concept in business and management.
CO2: Importance of Operations Research in decision-making.
CO3: Replacement policy for equipment, which deteriorates with gradually, replacement of items that fail suddenly.
CO4: Types of Decision Making Environment (risk, certainty, uncertainty) Concept of Decision Tree.
CO5: Analyze the General structure of queuing system, Queuing Models.
CO6: Inventory Management system, Economic Order Quantity, Models and its application, selective control of inventory.
CO7: Taking decisions in business with the help of Game Theory.
CO8: Concepts of Simulation, Monte Carlo Simulation, Simulation and its applications.

Course Content

1. **Meaning of Operation Research:** Characteristics of OR, Scope OR in management, Methodology of OR, Advantages and limitations of OR.

2. **Replacement Theory:** Introduction, Replacement policy for equipment, which deteriorates with gradually, replacement of items that fail suddenly.

3. **Decision Theory:** Introduction, Types of Decision Making Environment (risk, certainty, uncertainty) Concept of Decision Tree.

4. **Queuing Theory**: Introduction, General structure of queuing system, Queuing Models (M/M/1 – Infinite population, M/M/K – Infinite population).

5. **Inventory Management**: Introduction, Types of inventory, inventory Management system, Economic Order Quantity, Models and its application, selective control of inventory (ABC, VFD, etc.)

6. **Theory of Games**: Introduction, Game models, Two-person zero sum games and their solution, Solution of 2 x n and m x 2 Games, Limitations of game theory.

7. **Simulation**: Introduction, Process of Simulation, Monte Carlo Simulation, Simulation and its applications.

BOOKS

- Operations Research by J K Sharma
- Operations Research by V.K. Kapoor
- Quantitative Techniques in Management by N.D. Vohra

IM-506 MARKETING STRATEGIES

Course Outcomes:

CO1: To understand the concepts of Strategy and Marketing Strategy
CO2: Explain the Resources Allocation to SBUs and consequently their strategy designing.
CO3: To develop an understanding of the concept of Strategy formulation and its implementation for the 4Ps, i.e. Product Strategy, Pricing Policies & Strategies, Place Strategy and Promotion Mix Strategy.
CO4: Understand the Competitor Analysis and apply concepts to Competitive Marketing Strategies
CO5: Integrate the theoretical concepts of SWOTAnalysiswith its application in Case analysis.

Course Contents:

1. **Introduction** to strategy, key elements of marketing strategy formulation, formulating the marketing strategy, competition and marketing strategy, factors influencing competitive success, Basic marketing strategies, strategic role of marketing manager, factors influencing company's marketing strategy, Difference between marketing strategy and marketing management.

2. **SWOT Analysis**: Mission, vision, formulation of policies, A framework for developing marketing strategy. **BCG Matrix**: Strategies to improve performance, sales volume and profitability, Understanding business portfolio through BCG matrix. **Marketing Strategies** of market leader, market challenger, market follower and market nicher, Porter's three generic strategies.

3. **Product Strategy**: Meaning, strategies for developing new products, Product life cycle, Strategies at various stages of PLC, Branding strategies.

4. **Pricing Policies and Strategies**: Meaning of price, pricing objectives, role and significance of price, factors affecting pricing, pricing strategies for new products, established products, price flexibility strategy, Product-line pricing strategy, Leasing strategy, price-leadership strategy, pricing strategy to build market share.

5. **Distribution (Place) Strategy**: Channel structure strategy, distribution scope strategy, multiple-channel strategy, channel modification strategy, channel-control strategy, conflict- management strategy.

6. **Promotion Mix Strategy**: Identify and understand the promotion mix variables, promotion objectives, strategies for developing promotional perspectives, Advertising strategies, Personal selling strategies.

7. **Case Studies**: minimum one on each units.

BOOKS

- Marketing Strategy by Vernon R. Stauble, Dryden Press.
- Marketing Management by Philip Kotler, Pearson Publication.
- Marketing Strategy and Management by Michael J. Baker, Palgrave Macmillan Publication
- Competitive Marketing Strategies by Norton Paley, Thorogood Publication.

IM- 511 -ECONOMETRICS

Course Outcomes:

CO1: Understand the basics of modelling
CO2: Get familiar with the stochastic term
CO3: Learn about various types of models
CO4: Develop the skills to identify the problems related to various models and able to transform the models.
CO5: Know about the Lag relationships and Time series modelling

Course Content

1. **Meaning And Methodology Of Econometrics**: Nature & Scope of Econometrics. The Nature of Regression Analysis
2. **Two Variables Linear Regression Model:** Basics of Two Variable Regression Analysis. Estimation and Hypothesis Testing.
3. **Extension of The Two Variables Linear Regression Model:** Multiple Regression Model, Estimation and Inferences.
4. **Nature, Consequences, Detection and Remedial Measures:** Heteroscedasticity, Autocorrelation, Multicollinearity.
5. **Regression on Dummy Variable:** Regression on qualitative variables, Shift in model and change of slope, Deseasonalisation of data
6. **Dynamic Econometrics Models:** Autoregressive and Distributed Lag Models.
7. **Time Series Econometrics:** Stationarity of Financial Time series, Cointegration test.

BOOKS

- Gujrati: - Basic Econometrics - Tata Mcgraw Hills
- Koutsoyiannis: - Theory of Econometrics – Palgrave publications
- Madnani: - Theory of Econometrics – Oxford &IBH Publications.

IM- 514 INDIRECT TAXES

Course Outcomes:

CO1: Helps to understand basic GST model
CO2: Useful to understand the indirect taxation system
CO3: Helps to understand the impact of GST on Indian economy
CO4: Differentiations between direct and indirect taxation
CO5: Understand the scope of indirect tax and its application
CO6: Understand the taxation system in case of import & export

Course Contents:

1. **Goods and Services Tax Act, 2017:** Introduction of GST:- Fundamentals of GST ,Constitution [101st Amendment] Act, 2016 , What is GST, Advantages of GST, Need for GST in India, One Nation - One Tax, Dual GST Model, Introduction of Central Goods and Services Tax Act, 2017 (CGST), State Goods and Services Tax Act, 2017 (SGST), Union Territory Goods and Services Tax Act, 2017 (UTGST) , Integrated Goods and Services Tax Act, 2017, (IGST) Goods and Services Tax Network [GSTN] ,GST Council, Important Definitions under CGST Law.

2. **Levy and Collection of Tax :-**Meaning of Supply , Scope of Supply, Composite and Mixed Supplies , Levy and Collection, Composition Levy, Person Liable to pay GST. Time of Supply and Value of Supply.

3. **Input Tax Credit :-** Introduction and Meaning of Input Tax Credit , Eligibility to avail Input Tax Credit (ITC)

4. **Registration, Accounts and Records under GST:-** Introduction, Persons not liable for Registration , Compulsory Registration in Certain Cases, Procedure for Registration , Cancellation of Registration , Revocation of Registration, Tax Invoice Credit and Debit Notes, Accounts & Records, Audit under GST, Types of Audit, Compulsorily Audit , Period for Retention of Accounts.

5. **Payment of Tax and Returns under GST:-**Computation of Tax Liability and Payment of Tax, Interest on Delayed Payment of Tax, Furnishing of Returns , First Return , Revision of Returns , Penalty and Late Fee.

6. **Refund-** Manner of processing of refund claim, interest payable on delayed refund, cases in which refund on import duty/export duty is made, principle of doctrine of unjust enrichment.

7. **GST: Customs:-**Origin & Introduction of custom Duty, Types of Custom duty, Exemption from custom duty, valuation of goods (imported & exported) , levy of custom duty. Introduction to Custom Procedures (Import Procedures and Export Procedure), Brief outline to baggage, Warehousing, Duty Drawback.

Suggested Readings:-

1. Study Material: Material issued by ICAI and the Institute of Cost Accountants of India.
2. Indirect Taxes, GST Ready Reckoner-V.S. Datey
3. Basics of GST by Taxmann
4. Websites: www.icmai.comwww.icai.org

IM- 515 PROJECT MANAGEMENT

Course Outcomes:

CO1: Develop skills on project planning, analysis implementation and control

CO2: Build up the concepts of networks, line estimation and determination of critical path (for both PERT and CPM models)

CO3: Need for reviews, initial review, performance evaluation, abandonment analysis, evaluating the capital budgeting systems.

Course Contents:

1. **Project Management**: Introduction, Concept and need of Project Management, Types of Project, Project Management in Current Scenario.
2. **Project Planning and Phases**: Need and importance, phases of capital budgeting, project analysis facts, resource allocation framework (investment strategies, portfolio planning tools, and interface between strategic planning and capital budgeting), Generation and Screening of Project Ideas.
3. **Project analysis**: Market and demand analysis, (Including demand forecasting) Technical Analysis and Financial Analysis (Cost of Project, working capital requirement & its financing).
4. **Project Selection**: Project cash flows, Time value of money, cost of capital, Appraisal criteria and analysis of Risk.
5. **Project Management and Control:** Project Organizations, Planning and Control of project & human aspects of project management, Project control tools (Gantt Charts, Line off Balance)
6. **Network techniques for Project Management**: Basic concepts of networks, line estimation and determination of critical path (for both PERT and CPM models), network cost systems and activity crashing.
7. **Project Review:** Need for reviews, initial review, performance evalution, abandonment analysis, evaluating the capital budgeting systems.

BOOKS

- Maylor, Harvey: Project Management
- Red F Parviz F: Project Estimating and cost management
- Nevendorf Steve: Project Management
- Royer Paul S.:Project Risk Management
- Goel BB: Project Management
- Patel M.Bhavesh: Project Financing
- RampalM.K. and Gupta S.L.: Project Report Writing

Semester - VI

Code	Subjects
IM-601D	**Fundamental of Machine Learning**
IM-602A	Entrepreneurship
IM-603A	**Forecasting Techniques**
IM-604A	**Financial Management II**
IM-614	Production and Operation Management
IM-613	**Business Environment**
IM -615	**Lab- Data Visualisation**

IM- 601D
FUNDAMENTALS OF MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE

Course Outcome

CO1: Introduction of techniques for representing knowledge required to build intelligent machines capable of taking decision like human beings.
CO2: Familiarize with techniques of solving problems that need human intelligence.
CO3: Enable students to formulate Artificial Intelligence problems
CO4: Brief understanding of tools used in machine learning and neural networks

Course Contents:

1. **Introduction**: Definition of learning systems. Goals and applications of machine learning. Aspects of developing a learning system: training data, concept representation, function approximation.
2. **Inductive Classification**: The concept learning task. Concept learning as search through a hypothesis space. General-to-specific ordering of hypotheses. Finding maximally specific hypotheses. Version spaces and the candidate elimination algorithm. Learning conjunctive concepts. The importance of inductive bias.
3. **Decision Tree Learning**: Representing concepts as decision trees. Recursive induction of decision trees. Picking the best splitting attribute: entropy and information gain. Searching for simple trees and computational complexity. Occam's razor. Overfitting, noisy data, and pruning.
4. **Rule Learning: Propositional and First-Order:** Translating decision trees into rules. Heuristic rule induction using separate and conquer and information gain. First-order Horn-clause induction (Inductive Logic Programming) and Foil. Learning recursive rules. Inverse resolution, Golem, and Progol.
5. **Clustering and Unsupervised Learning**: Learning from unclassified data. Clustering. Hierarchical Aglomerative Clustering. k-meanspartitional clustering.
6. **Artificial Neural Networks**: Neurons and biological motivation. Linear threshold units. Perceptrons: representational limitation and gradient descent training. Multilayer networks and backpropagation. Hidden layers and constructing intermediate, distributed representations. Overfitting, learning network structure, recurrent networks.
7. **Tools for Machine Learning**: Introduction to Weka and KNIME tools. Decision tree induction of real world data using the tools. Clustering of data using the tools. Learning through neural networks using the tools.

Textbook:-

1. Tom Mitchell, Machine Learning, McGraw Hill.

Reference Books:-

1. Bishop, C. (2006). Pattern Recognition and Machine Learning. Berlin: Springer-Verlag.
2. Hastie, T., Tibshirani, R., and Friedman, J. (2001). The elements of Statistical Learning - Data Mining, Inference, and Prediction. Berlin: Springer-Verlag.
3. Tan, P-N., Steinbach, M., and Kumar, V. (2004). Introduction to Data Mining. New York: Addison-Vesley

IM- 602A
ENTREPRENEURSHIP

Course Outcomes:

CO1: With the increase in demand of conferences and exhibitions, a need for trained professionals for this field has been recognized.

CO2: Successfully plan and execute Entrepreneurship Skills in the market.

Course Contents:

1. **Entrepreneurship:** An Introductionto the concept of entrepreneurship, Characteristics of an entrepreneur, functions of an entrepreneur.
2. **Entrepreneurship and its environment**: External: Market, economy, political & legal, technology, social and cultural.Internal: materials, machines &equipments, processes, capital, labour.
3. **Problems and challenges of organizations/enterprises**- Economic (capital, material and labor)

   Non-economic (social, political and personal)
4. **Financial management issues**- Financial requirement and its planning, balance sheet and income statement, determination of cost, cost-volume-profit analysis.
5. **Marketing management issues**- Functions of marketing, concept of product life cycle, issues related to product and its design, distribution, promotion, price.
6. **Human resource management issues**-HR planning, recruitment & selection, training & development, performance appraisal, motivation, compensation & rewards, relevant labor laws.
7. **Legal issues**- Patent, Copyrights, Trademarks.
8. **New venture expansion strategies and issues**- Joint venture, acquisition, merger, franchising.

Books

1) Entrepreneurship for SSI: Vasant Deasi (Text Book)
2) Entrepreneurship: New Venture Creation: David H. Holt
3) Entrepreneurship in small Scale factor: D Naxendra Kumar
4) Entrepreneurship development – Programs & Practices: Jasmer Singh Saini
5) Entrepreneurship: strategies & resources: Marc. J. Dollinger
6) Entrepreneurship: Hirsch Peters

IM-603A
FORECASTING TECHNIQUES

Course Outcomes:

CO1: Understanding of the concepts of forecasting and various forecasting techniques with special reference to business.

CO2: understanding (the variance as a measure of risk, marginal analysis, elasticity, costing, seasonal & cyclic considerations, simulation & sensitivity analysis

CO3: Evaluation of ME, MAD, MSE, RMSE (SDE), PE, MPE, MAPE. Theil's U-statistics.

Course Content:

1. **The role of forecasting** in planning, relating forecasting and planning in business organization, forecasting as input to planning &decision making. Basic concepts of business forecasting and planning, Contribution of forecasting to analysis & understanding (the variance as a measure of risk, marginal analysis, elasticity, costing, seasonal & cyclic considerations, simulation & sensitivity analysis.
2. **Fundamental of quantitative forecasting**; criteria for evaluation; ME, MAD, MSE, RMSE (SDE), PE, MPE, MAPE. Theil's U-statistics, Introduction to quantitative and technological forecasting. Quantitative v/s qualitative forecasting.
3. **Time series methods of forecasting**; single and double moving averages. Single and double moving averages. Single exponential smoothing, adaptive response rate single exponential, smoothing. Double exponential smoothing, Brown's one parameter ad Holt's two parameter methods.
4. **Forecasting through Regression** (Simple and Multiple) using Matrix approach.
5. **Introduction to Box-Jenkins** (ARIMA) models.
6. **Introduction to input output analysis**, the specification, estimation & forecasting through input-output analysis.
7. **Quantitative & technological** methods for forecasting; subjective assessment methods, sales force composite methods formal surveys & market research based assessments, subjective probability assessments. Exploratory methods – scenario development, Delphi, cross-impact matrices, curve fitting. Analogy methods, morphological search, catastrophe & planning in business organization.

BOOKS

- Makridakis Wheelwright and McGee (1983): Forecasting: Methods and Applications, John Wiley and Sons (Latest edition)

IM-604A

FINANCIAL MANAGEMENT-II

Course Outcomes:

CO1: Taking sound financing decisions.

CO2: Integrate student knowledge to estimate the cash flows from an investment project, calculate the appropriate discount rate, determine the value added from the project, and make a recommendation to accept or reject the project.

CO3: Taking sound dividend decision.

CO4: Understand the demerits and merits of different types of long and short term sources of finance.

Course Contents:

1. **Financial Management**: Review of finance functions, financial goal; Profit maximization v/s Wealth maximization, Review of time value of money.

2. **Capital Budgeting Decisions** I: Non-time discounted techniques of capital budgeting- Nature and Types of investment decisions, Investment evaluation techniques- Payback, ARR.

3. **Capital Budgeting Decisions II**: time discounted techniques of capital budgeting - NPV, IRR, PI.

4. **Financing Decisions-I**: Capital structure, Theories, Designing capital structure.

5. **Financing Decisions-II** Concept of leverage, Operating leverage, Financial leverage, and Combine leverage.

6. **Dividend Decisions**: Dividend theory, Dividend Policy-Objective, Stability, Practical considerations in dividend policy; Dividend Forms- Bonus Shares, Share Split, Buy Back of Shares.

7. **Case Studies**

BOOKS

- Financial Management by Khan & Jain(5th edition), McGraw Hill Education Private Limited
- Financial Management by I. M. Pandey (10th edition), Vikas Publishing House Pvt Ltd.
- Fundamental of Financial Management; James C Van Horne & John M Wachowicz, Jr, Pearson Education
- Financial Management and Policy; James C Van Horne & Sanjay Dameja, (10th edition) Pearson Education

IM-614PRODUCTION & OPERATIONS MANAGEMENT

Course Outcomes:

CO1: Provide an opportunity for the participants to understand the basic method of production management techniques and eventually to develop skills in problem-solving and decision-making.

CO2: Acquainted with the basic aspects of Production Management. The course attempts to discuss various important planning, organizing and controlling aspects of Operations Management.

CO3: Reinforce the concepts of Production Management through various operational aspects of Production Management. Various important Production Management techniques will be covered with different problem-solving methodologies.

Course Content

1. Introduction to Production & Operations Management- Definition, Production Functions and its environment, Types of production system, Functions of Production/Operations Manager, Organization of Production Function, Difference between Production & Operations Manager. **Basic Concept of Productivity and Productivity Management:** Introduction, Dynamics of Productivity Change, Factors influencing productivity.

2. Facility Location and Product /Service Planning: Product Selection and Design, Process and Technology Selection, Choice of optimal location, Factor affecting Plant Location, location models (Centre of Gravity Model, Median Model, Break Even Analysis, Brown & Gibson Model)

3. Layout Decision: Types of layout, layout factors, Layout procedure and techniques, Line balancing-concept of line mass production system, objectives of assembly line balancing, Material Handling Concepts

4: Forecasting and Aggregate Production Planning : Introduction to Forecasting, Methods of Forecasting (Delphi, Moving Average, Least Square), Aggregate planning-strategies, Quantitative methods of aggregate planning

5. Master production schedule (MPS) and Material Requirement planning (MRP): MPS concept and its calculations, BOM (Bill of Materials), Structure of BOM, MRP concept and MRP Planning ,Concept of Capacity requirement planning(CRP) and Resource requirement planning(RRP).

6.Operations Scheduling: Production Activity Control for Mass Manufacturing, batch processing and Job shop -n-jobs on single machine, n-jobs on Two/Three machines (Johnson's Rule), 2-jobs on m machines (Graphical method – Aker's Algorithm)

7. Capacity Calculation and Utility of Modern Production and Management Tools: Determination of Plant Capacity, Capacity Measurement and Decision, Concept of Just in time manufacturing(JIT), computer integrated manufacturing (CIM) , computer aided manufacturing and design (CAD/CAM) and flexible manufacturing system(FMS), Kaizen , world class manufacturing

BOOKS

- Applied Production and Operations Management- James R. Evans
- Production & Operations Management- K. Shridhara Bhat
- Production and Operations Management-R. Paneeerselvam
- Modern Production / Operations Management, Buffa ES& Sarin RK.
- Operations Management- Norman Gaither, Greg Frazier
- Operations Management: Strategy and Analysis, KrajewskiLee J &Ritzman Larry P, Addison Wesley.

IM – 613

BUSINESS ENVIRONMENT

Course Outcomes:

CO1: Acquainted with the practical application of the factors that affect business.

CO2: Nature & Structure of Economy, Anatomy of Indian Economy, Economic Reforms, Economic Policies.

CO3: Acquainted with technological development and its impact on various stakeholders of society.

Course Content:-

1) **Meaning of Business Environment** - Business & Business Environment, Nature of Business in 21st century, Components of Business Environment, Stages of & Techniques for environmental analysis.
2) **Economic Environment** - Nature & Structure of Economy, Anatomy of Indian Economy, Economic Reforms, Economic Policies: - Industrial, Monetary & Fiscal Policies, Case Studies.
3) **SWOT Analysis** of Indian Economy. Recent Developments in Business Environment of India: - Privatization & Disinvestment – Mode, reasons, problems and Indian scenario; Foreign Investment. Case Studies.
4) **International Business Environment**:- Globalization- Meaning, scope, phases, indicators; WTO &GATT, Post 2007 International Economic Crisis, Case Studies.
5) **International Financial Markets** and Indian Business, Capital account Convertibility, global capital flow paradox, Forex Reserve Management and its impact on Indian Business. Case Studies.
6) **Business Ethics** – Social Environment and Business, Corporate Social responsibility, Corporate Governance, Technological development and its impact on various stakeholders of society. Case Studies.
7) **Business and Nature**: Economic development and Environment, market failure, Externalities, Economic solution to environmental problem. Ethical responsibility of Business towards nature. Case Studies.

BOOKS:-

- Francis Cherullinum- Business Environment, Himalaya Publishing House, New Delhi
- K. Aswathappa – Essentials of Business Environment, Himalaya Publishing House, New Delhi
- Mishra &Puri – Economic Environment in India, Himalaya Publishing House, New Delhi
- Justin Paul:- Business Environment – Text & Cases, McGraw Hill Companies, New Delhi
- Raj Agrawal - Business Environment, Excel Books, New Delhi
- Dutt&Sundaram – Indian Economy, S. Chand & Co. New Delhi
- I.J. Ahluwalia &I.M.D. Little – India's Economic Reforms and Development, Oxford University Press, New Delhi.

IM – 615
LAB- DATA VISUALISATION

Course Objective - The objective of this course is to provide hands on experience to students in presentation of data in table, pictorial or graphical format. Such visual presentation will help in providing better insight in decision-making. The student will learn to design data visuals with different visual encodings, create different type of charts and maps in Excel / Tableau.

Evaluation - The faculty member will award internal marks out of 40 based on three assessments of 20 marks each of which best two will be considered. The end semester examination will be worth 60 marks of Lab viva/ practical.

Lab sessions will be based on following topics:

1. EXCEL BASICS: Spreadsheet Basics, Data Formatting in Excel like colors, fonts, Bullets etc, Basic Sorting and Filtering, Creating, Editing, saving and Printing spreadsheets. Sorting Data by values, colors , etc. Filtering by numbers, text, values logical functions, colors, Using Filters to Sort Data, Using Auto filter, Creating a custom AutoFilter Advance Filtering Options.
2. BASIC FORMULAE: SUM,AVERAGE,COUNT,MAX,MINetc Text Function, Logical Functions, Date and Time Functions, Information Function, Database Functions, Math and Trigonometry Functions, Statistical Functions, Relative cell reference, Absolute cell reference
3. FUNDAMENTAL DATA ANALYSIS : Charts, Creating a chart, Formatting a chart, Adding Labels, Changing the chart type, Data source, Sorting Data by Color, Creating a custom format, Create a custom number format, Conditional Formatting, Creating Conditional Formatting, Editing Conditional Formatting, Adding Conditional Formatting, Deleting Conditional Formatting from the selected range.
4. POWERFUL DATA ANALYSIS – PivotTable, Create a PivotTable to analyze external data, Connect to a new external data source, Using the Field List option, PivotTables based on Multiple Tables, Adding Pivot table Report Fields, Refreshing Pivot table Reports, Changing the summary functions, Creating report filter page. What-IF Analysis, Goal Seek, Data Tables, Scenario Manager, Working with Macros, Display the developer Tab, Changing Macro security Settings, Recording and running a Macro.
5. TABLEAU: Choosing appropriate visual encodings – ordering of item, number of distinct value, structure of visualisation, positioning - placement and proximity, graphs and layouts, colors, size, text and typographic, shapes , lines.
6. User defined fields: Using predefined fields, calculating percentages, applying if-then logic, applying logical functions, showing totals and percentages, discretizing data, manipulating text.
7. Customization: Adding title and caption, font size and colours, adding various marks, adding reference lines, using presentation mode, adding annotation, adding drop-down selectors, search box selectors, slider selectors, creating dashboards, creating animated visualizations .

SAMPLE EXERCISE MICROSOFT EXCEL-

PRACTICAL EXERCISE 1

Use the worksheet given below to answer the questions that follow:

Employee Details						

Emp No	Name	Category	Basic Pay	Allowances	Gross Pay	Tax Deductions
E8	Cornell	Assistant	4,600	300		
E9	John	Assistant	3,500	450		
E2	Francis	Supervisor	6,508	500		
E3	Edwin	Management	8,006	1,801		
E10	Carl	Assistant	4,200	100		
E4	Bernard	Management	7,917	1,775		
E5	George	Supervisor	5,500	850		
E1	Lewis	Management	8,291	2,500		
E6	Albert	Supervisor	5,700	760		
E7	Edward	Supervisor	7,151	1,545		
Tax Rate						
12%						

Questions

(i). Make all the column titles bold, and size 12. Center the title , across columns A1:H1 and make it size 16, and Bold.
(ii). Calculate the gross pay in cell **F4**.
(iii). Calculate the amount of tax deducted from each employee, given that the tax rate is 12% of the gross pay. Tax rate is found in cell A16 of the worksheet.
(iv). Format the text orientation in the range **A4:G4** to 0 degrees.
(v). Adjust the column width such that all the headings are visible.
(vi). In cell **H4**, enter the title **Net Pay** and calculate the Net pay for all employees.
(vii). Format the range **G4:H13** to **zero** (0) decimal places.
(viii). Format the title **Net Pay** to match the other titles.
(ix). Set the range A1 to H16 as **Print Area**.
(x). Using the Names in column B, Basic Pay in column D, and Allowances in column E, insert a **Clustered Column Pie Chart** on the same sheet to show comparison of the salaries for the employees. The Chart Title should be **Employee Details**, the Y-axis should be **Employee Names** and the X-axis should be **Thousands (Kshs).**
(xi). Move the chart so that the top left corner is on cell A18.
(xii). Change the Chart Title to **Employees' Salary Details**.
(xiii). Change the Chart Type to **Clustered bar with a 3-D visual effect**.
(xiv). Increase the Chart Title **Font size to 14**.
(xv). Change the text direction for the title of the X-axis to 0 degrees, and for the Y-axis to -90 degrees.
(xvi). Resize the chart such that the bottom left corner is on cell A55, while the bottom right corner is on cell I55 so that all the details are clearly visible.
(xvii). Save the worksheet as **Salary Details (Reviewed Copy)**.

PRACTICAL EXERCISE 2

You are in charge of a young and growing business. You have identified the various factors (sources of revenue and expenses) that influence the business as shown in the table below. Use the figures provided and the layout to create a financial projection model for the business for the next six years. The parameters are given on Sheet 2.

SHEET 1:

INCOME AND EXPENSES PROJECTIONS						
	1999	2000	2001	2002	2003	2004
Sales	10,000					

% Growth over the previous year		20%	30%	20%	10%	10%
Materials						
Wages						
Other benefits						
Others						
Total Cost of Goods Sold						
Salary: Office						
Salary: Sales						
Other Benefits						
Advertising & Promotions						
Depreciation						
Miscellaneous						
Total General & Admin. Expenses						
Total Operating Costs						
Interest on Loans						
Pre-tax Income						
Tax						
Profit						

SHEET 2:

Parameters		**Description**
Sales	10,000	Starts at 10,000 and grows by a percentage
Materials	17%	17% of Sales
Wages	14%	14% of Sales
Other benefits	2.1%	2.1% of Sales
Others	8%	Starts at 100, then grows by 8% yearly
Salary: Office	10%	Starts at 1,000, then grows by 10% annually
Salary: Sales	8%	8% of Sales
Other Benefits	17%	17% of Total Salary
Advertising & Promotions	2.5%	2.5% of Sales
Depreciation	20	Fixed at 20 every year
Miscellaneous	10	Starts at 10 and grows by a fixed amount of 10 annually
Interest on Loans	10	A fixed amount of 10 each year
Tax	52%	52% of Pre-tax Income

Exercise Instructions.

(i). Open the worksheet named **Income and Expenses Projections.xls**.
(ii). Rename Sheet1 as **Projections** while Sheet 2 should now be **Parameters**.
(iii). Calculate the Sales for the year 2000 using the percentage given in cell **C5**.
(iv). Copy the formula across to the Year 2004.
(v). Calculate the different items that make up the Total Operating Costs using the parameters in the Parameters sheet.
(*You should enter the formula for the Year 1999 and copy down to the year 2004. Use Absolute Referencing effectively*).
Hint: *Total Cost of Goods Sold = Materials + Wages + Other Benefits + Others*
(vi). Calculate the Total Operating Costs:
Total Cost of Goods Sold + Total General and Administrative Expenses.
(vii). Calculate the Interest on Loans:
(viii). Calculate the Pre-tax Income.
Sales – Total Operating Cost – Interest on Loans.

(ix). Calculate the Tax.
(x). Calculate the Profit:
Pre-tax Income - Tax.
(xi). Format the worksheet as follows:
Make all the Totals bold, zero decimal places, comma, center the heading between A1:G1 and make it size 16, bold.
(xii). Save the file as **C:\Exams\Creative.xls**

SAMPLE EXERCISE TABLEAU

1. **Sales Representative and Calls Performance**
a) Make a visualization showing the total number of calls, separated by incoming and outgoing, for each sales representative (rep id).
b) Make a visualization showing which sales reps have the largest number of outgoing calls.
c) Make a visualization showing which sales reps handled the most calls (incoming and outgoing) at the time block starting at 2pm.
Make a dash board (DASHBOARD A) containing all three of these visualizations.

2**. Company Sales Branches Comparison**
Your CEO wants to have one chart that allows her to easily comprehend how many calls each branch of the company has, broken out by the type of call (call purpose). You are to make four visualizations to put in a dashboard (DASHBOARD B) to show your manager (one of which you'll end up showing the CEO). Describe which of the four you think is best and why and include it as an annotation on that visualization.
a) One focused on call purpose (Bar Chart, 3 groups: complaint, product support, sales support)
b) One organized by Branch (Bar Chart, 2 groups: north, south)
c) Call purpose Stacked Bar Chart (combining two branches into same stacked bar)
d) Branch focused Stacked Bar Chart (combining three call purposes into same stacked bar)

3. **Call Time and Sales Rep Filtering**
Display the number of calls each sales rep makes. Build a quick filter that controls which of these results are displayed based on the value of SUM(During Call Wait Time). Make the filter 10 (minutes) wide (you can set exact values by clicking on numbers). Now drag the filter (via mouse down in middle of bar) through the range of waiting minute values. Create a dashboard (DASHBOARD D) to record all the times that you can find where there are ONLY TWO sales reps matching the filter condition and shown in the visualization (e.g. Cam and Xander both have 24 calls when During Call Wait Time minutes is between 65 and 75).

Semester VII

VII SEMESTER		
Core	**IM-703B**	Research Methodology
Compulsory	**IM – 719**	Statistical Data Analysis
MKT A (DUAL)	**IM-712MA**	Integrated Marketing Communication
	IM-707MA	Sales & Distribution Management
	IM-711MA	Consumer Behavior
MKT B (SINGLE)	**IM-706MB**	Rural & Retail Marketing
	IM-707MB	Global Marketing
	IM-705MB	Digital Marketing
FIN A (DUAL)	**IM-714FA**	Security Analysis and Portfolio Management
	IM-715FA	Financial Market and Financial Services
	IM-716FA	Insurance and Banking
FIN B (SINGLE)	**IM-714FB**	Financial Planning And Wealth Management
	IM-715FB	Corporate Financial Analysis
	IM-718FB	Financial Engineering And Risk Management
HR A (DUAL)	**IM-712HA**	Managing People
	IM-709HA	Human Resource Development
	IM-711HA	Training and Development
HR B (SINGLE)	**IM-714HB**	Strategic HRM
	IM-715HB	HR Planning and Audit
	IM-716HB	Compensation & Reward Mgt.

IM-703B

Research Methodology

Course Outcomes:

CO1: Understand basic concepts of research, its methodologies and Identify appropriate research topics.

CO2: Select and define appropriate research problem and parameters.

CO3: Prepare a project proposal (to undertake a project)

CO4: Organize and conduct research (advanced project) in a more appropriate manner

CO5: Identify, explain, compare, and prepare the key elements of a research proposal/report/dissertation/ industrial report.

CO6: Demonstrate knowledge of research processes (reading, evaluating, and developing);

CO7: Perform literature reviews using print and online databases;

CO8: Employ American Psychological Association (APA) formats for citations of print and electronic materials;

CO9: Compare and contrast quantitative and qualitative research paradigms.

CO10: Describe sampling methods, measurement scales and instruments and appropriate uses of each;

CO11: Explain the rationale for research ethics.

Course contents:

1. **Introduction to Research Methods:**

   Meaning and purpose of research; objective of research; types of the research; process of research; research methods v/s methodology; research proposal; limitation of research; research terminology-concepts, variables, constructs, operational definitions, propositions & hypothesis, theory, models etc.

2. **Research design:**

   Selection and definition of problem, survey of literature, different research designs, feature of good research design

3. **Sampling Design:**

   Concept of sampling; Sampling terminology; Objective and principles of sampling, Types of sampling, Sampling and non-sampling errors.

4. **Data Measurement and Collection**

   Data type, Measurement scale, Attitude measurement scale, Questionnaire design, Validity and reliability of a research instrument; Method of collecting data and their advantages and disadvantages.

5. **Data Analysis I:** Introduction to SPSS (Statistical Package for the Social Sciences) application; Data Management, Preparation and descriptive analytics using spreadsheet and SPSS. Visualization, exploration and extracting data summary statistics and their interpretation.

6. **Data Analysis II:** Hypothesis testing: Review of Concept, methodology, types of errors, important parametric and non parametric tests for single, two and multiple group comparison.

7. **Report Writing And Presentation:**

   Significance of report writing, Steps in report writing, Layout of report, Precaution in writing research reports, Writing bibliography.

Books

1. Donald r Cooper and Pamela S Scheindler, Business Research Methods, Tata McGraw Hills
2. K N Krishnaswami, A L Sivakumar and M Mathirajan, Management Research Methodology, Pearson Education.
3. Darren George and Paul Mallery, SPSS for Windows, Pearson Education.
4. Hair etc, Multivariate Data Analysis, Pearson Education.
5. Panneerselvam,R., Research Methodology, Prentice Hall of India Pvt. Ltd.
6. Kothari, C.R., Research Methodology - Methods and Technique, New Age International Publishers

IM-719
Statistical Data Analysis

Number of Credits : 02

Course Outcomes :

A working knowledge of statistical software is a vital skill for anyone involved in quantitative research. This course will introduce data management, simple descriptive statistics, and basic graphical display using the SPSS software package. Students will develop the fundamental skills needed to prepare data sets for analysis, and to conduct simple descriptive and graphic analyses and report those analyses. The primary objective is to learn basic data analysis with SPSS. Students will learn how to enter data, define variables, and perform variable manipulation and transformation. After creating the data set, students will learn how to use SPSS to analyze data.

Specifically, the objectives of this course are to learn:

- SPSS file types;
- Survey coding and data entry;
- Selected SPSS procedures; and
- Data analysis and interpretation with SPSS.

Learning Outcomes

Student will be learnt how to edit and analyze data using SPSS program.

Unit 1: Review of terminology - Basic categories of research, What is a variable, Categorical versus continuous, Independent versus dependent variables, Measurement scales, Common statistical programs, Orientation to SPSS program and What is under each menu.

Unit 2: Introduction - Introduction to SPSS - Data analysis with SPSS: general aspects, workflow, critical issues - SPSS: general description, functions, menus, commands - SPSS file management.

Unit 3: Input and data cleaning - Defining variables - Manual input of data - Automated input of data and file import, Output management

Unit 4: Descriptive analysis of data - Frequencies - Descriptives - Explore - Crosstabs – Charts

Unit 5: Statistical tests – parametric and non-parametric.

Unit 6: Qualitative data analysis.

Unit 7: Quantitative data analysis.

Reference Books:

- Field, A. P. Discovering statistics using SPSS (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Hinkle, D. E., Wiersma, W., & Jurs, S. G. (2003). Applied statistics for the behavioral sciences (5th ed.). New York: Longman.
- Brace(Nicola), SPSS For Psychologists A Guide To Data Analysis Using Spss For Windows, (Palgrave, 2006).
- Norusis, Marija J., SPSS for Windows (Chicago: SPSS inc 1993).
- George Darren; Mallery Paul, SPSS For Windows, (Pearson Education, 2009)
- Foster(Jeremy J) Data Analysis Using SPSS For Windows Versions 8 To 10:A Beginner's Guide (Sage Pub, New Delhi, 2001)

IM 712MA

Integrated Marketing Communication

Course Outcomes

CO 1: Understand the concept of Integrated Marketing Communication and its role in Marketing
CO 2: Discuss various components of IMC campaign
CO 3: Understand role of advertising and Public Relations in IMC
CO 4: Discuss role, tools and importance of sales promotion in today's era as IMC component
CO 5: Discuss role and tools of Direct Marketing in IMC
CO 6: Understanding influence of Personal Selling on customer and its importance in IMC
CO 7: Understand the role of unconventional media and tools in communication
CO 8: Understand the issues affecting International marketing Communications

Course contents

1. **Introduction to Integrated Marketing Communication:** The Promotional –Mix, Role of Marketing Communications in Marketing, Evolution and Importance of Integrated Marketing Communication, An overview of IMC components, Understanding the Communication process - Consumer Response Hierarchy, FCB planning Model, Budgeting and IMC campaign coordination
2. **Advertising as an IMC Tool:** Advertising concept, Advertising campaign, advertising objectives, Media Types and Message Strategy and coordination of Advertising with other IMC tools
3. **Public Relations and Publicity:** The concept, Types of Public Relations and Tools of Public Relations
4. **Sales Promotion as an Integration tool:** Importance and growth of Sales promotions, Objectives and Sales Promotions Types, Risks of Sales Promotions
5. **Direct Marketing and Personal Selling :** Direct Marketing- importance and applications , tools of direct marketing ; Personal Selling- Role of Personal Selling, Personal Selling Process, Personal Selling as an individual communication tool as compared to other communication mediums
6. **Events sponsorships**: Meaning, Reasons of growth of sponsorships, Types of sponsorships : Unconventional Promotional Media**:** Word-of-Mouth Advertising, In-film promotion, Social Media Marketing,
7. **International Marketing Communication:** Role of international marketing communication in international marketing, Cultural and other differences, Global Vs. localized marketing communications

Text Books:

1)Advertising and Promotion: An IMC perspective- Belch and Belch, Tata McGrawHill
2)Advertising and Promotions: An IMC Perspective- Kruti Shah and Alan D'Souza, Tata McGrawHil

Reference Books:

1)Wells, W. D., Moriarty, S., & Burnett, J (2007). *Advertising: Principles and Practice*. New Delhi: Pearson Education India.
2)Clow, K. E., & Baack, D (2007). *Integrated advertising, promotion and marketing communication.* New Delhi: Pearson Education India.
3)Aaker, A. D., Batra, R. & Myers, J. G. (2009). *Advertising Management*, 5th Edition. Pearson Education India.

IM-707MA

Sales and Distribution Management

COURSE OUTCOMES:

CO1: Achieving organizational goals and Outcomes by focusing on the aim and planning a strategy regarding achievement of the goal within a timeframe.

CO2: Gain familiarity of sales team monitoring the customer preference, government policy, competitor situation, etc., to make the required changes accordingly and manage sales and distribution network.

CO3: Monitoring the customer preference, the salesperson develops a positive relationship with the customer, which helps to retain the customer for a long period of time.-

Course Content:

1. Introduction to sales management – Concept of sales, Role of sales management in Marketing, Steps in designing and managing a sales force, Managing the sales force, sales strategies, Methods of selling.

2. Theories of sales management: AIDAS theory, right set of circumstances theory, buying formula theory, behavioral equation theory.

3. Personal selling function –Concept, objective, role of Personal selling in marketing mix, Process of Personal Selling, types of sales job.

4. Sales organizing ,Sales Forecasting, Quota and Territory Management – overview, purpose and concept of sales organization, developing a sales organization, Concept and techniques of sales forecasting, importance of sales quota, territory management, sales budget concept and techniques.

5. **Operational sales Management:** Recruitment Sources, Selection procedure, Sales force training, Compensation and Motivation of sales force, purpose of motivation, various modes of compensating the sales force, Model of the motivation process, factors affecting salespersons motivation.

6. Monitoring and Performance Appraisal: Principles of sales evaluation, evaluating Performance standards, field sales reports

7. Distribution: Introduction, objectives of channels of distribution, Flows in channels of Distribution, Patterns of Distribution, Management of channels, Managing cooperation, conflict and competition, Channel structure and design –Channel management – Channel decisions, Factors in selection of Distribution channels, Motivation of intermediaries, horizontal and vertical marketing system, Distribution Analysis, Control and Management: concept of physical distribution, order processing, warehousing, EDI and SCM, Scope of control, Tools for control, Kinds of control devices.

Text Reading:

1. Sales and Distribution Management; Text and cases – Krishna K Havaldar & Vasant M Cavale
2. Basics of Distribution Management; Kapoor & Kansal
3. Sales Management- Decisions, strategy and Cases- Cundiff and Govni

IM-711MA

CONSUMER BEHAVIOUR

Course outcomes:

CO1: Understand what consumer behavior is and the different types of consumers

CO2: Understand the relationship between consumer behavior and the marketing concept, the societal marketing concept, as well as segmentation, targeting and positioning

CO3: Understand the relationship between consumer behavior and customer value, satisfaction, trust and retention

CO4: Understand how new technologies are enabling marketers to better satisfy the needs and wants of the consumers

COURSE CONTENTS:

1. Introduction to the study of consumer behaviour: Nature, Scope and application.
2. Environmental influences on consumer behaviour-I : Cultural, Social, Personal, Family, and situational influences, opinion leadership and life style marketing, characteristics of culture, cross-cultural understanding, nature of social class, social class and consumer behaviour,
3. Environmental influences on consumer behaviour- II :nature and significance of personal influence, marketing implications of personal influence, significance of family in consumer behaviour and family life cycle, Opinion leadership forms.
4. Consumer as an Individual: Involvement and Motivation, Knowledge, attitude, perception, values, personality, learning and life style, Dimensions of involvement and its marketing implications, nature and role of motive, classifying motive, characteristics, functions and sources of attitudes, Attitude theory and model, Characteristics and classification of learning, Personality theory and application, Psychographics, Consumer Gifting Behaviour.
5. Consumer Decision Process: Pre-purchase Process, Information Processing, Purchase Processes, Consumer Decision Rules, Post – Purchase Processes: Framework, Dissonance, Satisfaction / Dissatisfaction.
6. Consumer Behaviour Models: Nicosia Model, Howard Sheth Model, Engel-Blackwell and Miniard Model, Family Decision Making Model
7. Organizational Consumer Behaviour: Difference between consumer and organizational buying behaviour, factors influencing organizational buying behaviour.

TEXT READINGS:

1. Consumer Behaviour, 10th Ed., Schifman Leon G, Kanuk Leslie Lazar, Ramesh Kumar, S., Pearson Education, UP, India
2. Consumer Behaviour 10th Ed, Blackwell Roger D., Miniard Paul W, Engel James

. F., Thompson Southwestern.

SUGGESTED READINGS:

1. Consumer Behaviour: Building Marketing Strategy, 9th Ed.Hawkins Del I, Best Roger J,Coney Kenneth A., Mookerjee Amit ,Tata McGraw Hill, New Delhi, India

IM-706MB
RURAL AND RETAIL MARKETING

Course Outcomes:

CO1: Develop an insight into rural marketing regarding different concepts and basic practices in this area.
CO2: Understand the challenges and opportunities in the field of rural marketing.
CO3: Significance of the rural markets.
CO4: Nature and characteristics of rural markets and factors contributing to the change in the rural market
CO5: Problems in Rural Marketing

COURSE CONTENT:

UNIT 1: Rural marketing – definition, concept, characteristics. Rural market profile (Statistical data).Analyzing the differences Between Rural and Urban Management. Demand of products and services in Rural Areas.
UNIT 2: Rural marketing Environment: Distinctive Marketing Environment in Rural India.
UNIT 3 : Rural Marketing Segmentation, 4 P's and Consumer behavior ,Income segmentation ,PEST analysis , Rural Consumer Behavior , product decision , pricing decision ,Promotional mix , Distribution Network in rural Marketing.
UNIT 4: Retail Marketing – concept, definition functions of retailing, retail planning process. Organized and unorganized retailing , types and formats of retailing.
UNIT 5: Change In Retail Environment: Socio Economic, Socio Demographic, Technological Changes And Its Impact On Retail Industry, Retail Marketing, Planning And Development.
UNIT 6: Fundamentals of Merchandising and types of merchandising.
UNIT 7: Role of technology in retail : Importance of IT in retail , factors affecting use of technology , applications of technology **,** internet retailing.

Books:

- Retailing Management by Swapna Pradhan
- Rural Marketing In India By Ahmed Shamim.
- Retail Marketing By David Gilbert.
- Rural Marketing By V E Sanal Kumar.

IM-707MB
Global Marketing

Course Outcomes:

CO1: Understand and assess the challenges of turbulent business environments

C0-2: Able to evaluate and design sustainable strategies in such environments both in marketing and global business

CO-3: Understand to apply relevant business skills

CO-4: Acquire and develop relevant additional knowledge and skills to support subject-based Expertise and global readiness.

CO-5: Enable to utilize strong analytical skills and apply tools required for professional practices

Course Contents

Unit I - Introduction to International Marketing: Definition, Scope and Importance; Emergence of Globalisation and International Marketing; International market orientation - EPRG framework; Challenges in International Marketing. Difference between Domestic, International, Multinational, Global Markets, EPRG Frame Work, Introduction to export documents

Unit II – International Environment: Environmental Influences on International Marketing; Cultural environment; Economic environment; Political and Legal Environment; Role of International Agencies.

Unit III – Planning for International Markets: International Market segmentation and positioning International Markets; Market regions and groups; Market entry methods.

Unit IV- Product Strategies: Standardization, Adaptation; International PLC; Designing new products Country of Origin Effect.

Unit V – Pricing Strategies: Role of price in International Marketing; Factors affecting international prices; Pricing methods and strategies; Challenges in international pricing., Transfer Pricing, Exchange Rates and Its Impact on Pricing.

Unit VI – Distribution Strategies: Distribution channels for international markets; Factors affection distribution in International markets; Distribution Strategies.

Unit VII – Promotion Strategies: Factors affecting promotion in International markets; Using marketing communications tools for international promotion; International Branding strategies. Global Media Decisions, Global Advertising Regulations.

Books Recommended:-

1. Global Marketing Management, Keegan –New Delhi, PHI.
2. International marketing, Czinkota.and Ronkainen, Thomson-South Western, New Delhi. Suggasted Readings:-
3 Sak Onkvisit and John J. Shaw. "**International Marketing Analysis and Strategies",** New Delhi PHI, 1998

IM-705 MB

Digital Marketing

Course Outcomes:

CO1: Identify the basic understanding of digital marketing
CO2: Differentiate between Traditional Marketing and Digital Marketing.
CO3: Understand the strategies used in digital marketing environment.
CO4: Understand difference between Inorganic and Organic Content.
CO5: Develop basic understanding of Search Engine Optimisation.
CO6: Know the various Advertisement formats used in digital marketing.

Course Contents:

Unit 1: Introduction and Fundamentals of Digital Marketing :

Definition, Scope, Advantages & Disadvantages, Process , Digital Marketing Vs Traditional Marketing , Functions and Responsibilities of Marketing Managers, Timeline and changes in Digital Marketing , Future of Digital Marketing

Unit 2: Content Creation Management and Curation:

Inorganic V/s Organic content, understanding of content marketing basics. classification of content channels (Video, Blog, website, articles, columns etc) , content curation.

Unit 3: Traditional Channels of Digital Marketing :

Search Engine Optimization, Social Media, Search engine marketing, Email Marketing.

Unit 4: Collective channels of Digital Marketing :

Mobile Specific , Inbound and Outbound Marketing, Affiliate Marketing, Influencer Marketing

Unit 5 : Paid and Sponsored Advertising Models:

Paid Ads on Search Engines, Paid Ads on Social Media, Paid Ads on e-commerce Platforms, Video Ads, Branded Content

Unit 6: Understanding of Analytics:

Search Engine Analytics , Social Media Analytics and Insights , Advertising Analytics, Vanity Metrics and Actionable Metrics

Unit 7: Case Study and Practical using analytical tools using Google analytics, facebook analytics)

Suggested Books:-

1. Digital Marketing For Dummies by Russ Henneberry and Ryan Deiss
2. The New Rules of Marketing and PR: 6th Edition by David Meerman Scott
3. Hit Makers: The Science of Popularity in an Age of Digital Distraction by Derek Thomson, 2017

Web Reference:

1 www.searchengineland.com
2 www.searchenginejournal.com
3 www.socialmediatoday.com
4 www.business2community.com

IM 714 FA
SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

COURSE OUTCOMES

CO1: Develop in dept understanding of investment techniques as applied to various forms of securities and acquaint them with the functioning of mutual funds, investment strategies and portfolio management services
CO2: Understand the importance of equity research.
CO3: Understand how excel can be leveraged for better analysis of a company
CO4: Enable to give recommendation based on fundamental and technical analysis

Course Contents

UNIT 1 :- Introduction: Concept of Investment, Investment V/S Speculation, Investment Environment, Instruments, Characteristics And Objectives Of Investment, Trading of Securities

UNIT 2 :- Risk and Return in trading - Concept Of Risk And Return, Types of Risk Systematic And Unsystematic Risk, Measurement of Risk.

UNIT 3 :- Valuation of Securities: Valuation of Fixed Income Securities: PV Model, Bonds prices & Yield, Term Structure of interest rates, Bond Value Theorem.Valuation Of Equity: Constant Growth Model, Multi-Stage Growth Model, P/E Ratio and Earnings Multiplier Models. Valuation Of Preference Shares, Valuation of Warrants, Rights Issued

UNIT 4 :- Security Analysis : Fundamental Analysis – Macro Economic and Industry Analysis, Business Cycles, Company Analysis, Technical Analysis - Trend analysis, Price and Volume indicators, Dow theory, Elliott Wave Theory.

UNIT 5 :- Capital Market Theories: CAPM Model ,Arbitrage Pricing Theory, Index Model, Efficient Market Hypothesis, Factor model.

UNIT 6 :- Portfolio Creation: Portfolio And Security Returns, Diversification, Markowitz Model, Sharp Index Model.

UNIT 7 :- Portfolio Evaluation: Measures of Returns, Formula, Plans, Sharpe and Treynor Measures.

Text Readings

1. V.K.Bhalla, "**Investment Management: Security Analysis And Portfolio Management**", S. Chand And Sons, New Delhi, sixth edition 1999.
2. Donald E. Fisher and Ronald J. Jordan, "**Security Analysis And Portfolio Management**", PHI Publication, New Delhi, 1998.
3. V.A. Avadhani, "**Investment and Security Markets In India**", Himalaya Publication, Bombay, 1998.
4. Edwin J. Elton and Martin J. Gruber, "**Modern Portfolio Theory And Investment**", John Wiley and Sons, Singapore, 1996.

IM-715FA

FINANCIAL MARKETS AND FINANCIAL SERVICES

COURSE OUTCOMES

CO1: Understand the various financial services and products in the liberalized Indian economy.
CO2: Know in-depth perspective of the equity and bond markets.
CO3: Enlighten the Concepts & Practical dynamics of the Indian Financial System, Markets, Institution, and Financial Services.

Course Contents:

1. Financial system and its components : Introduction , Nature and role of Financial System; Financial System and its components ; Financial system and economic development. Financial services : Introduction of Financial Services and its types ; Fund Based and fee based services .
2. Financial Markets I:Capital market; Primary Market: Role; Instruments; Pricing Mechanism – Fixed / Book building ; Issue mechanism : IPO , FPO etc. ; Green Shoe Option . Funds from International Markets: FII's, Euro Issues, ADR's, GDR's and FDI.
3. Financial Markets II: Secondary Market: Introduction to Stock Exchanges, Depository and Custodian . Money market: Call money market ; Treasury bills certificate of deposit , commercial Paper market . Derivatives: Concept and introduction to derivatives
4. Financial services I: Venture capital: Concept , need and process. Mutual funds: Introduction, Structure of Mutual industry, Types of Funds, Advantages Of Mutual Funds, Concept of SIP and rupee cost averaging .
5. Financial services II: Merchant banking : Concept and functions ; SEBI guidelines . Securitization: Basic Concept; Asset Backed Security; Mortgage backed Security.
6. Other Services : Factoring : Reasons for factoring ; Services provided ; parties involved ; Types ; Process of factoring. Credit Rating: Meaning and Necessity ; Credit Rating Agencies ; Methodology of Credit rating
7. Lease financing : Concept of Leasing , Lease Evaluation : Buy vs Lease decisions Role of SEBI : an overview ; State Financial Corporation and Development Financial Institutions (Development banks)– Concept , objective.

TEXT READING:

1. M.Y.khan," Financial services"' tata McGraw Hill 2000
2. B.S.bhatia, G.S.Batra," Management of capital markets, financial services and institutions"' Deep and Deep publications,2000
3. Investment of security market in India: V.A.Avadhani
4. Indian Financial system: P.N.varshney and D.K.Mittal

IM-716FA

INSURANCE AND BANKING

Course Outcomes:

CO1: Enhance understanding of fundamentals of risk in Insurance and Banking.
CO2: Understand banking system in India, retail and corporate products of banks in India.
CO3: Understand payment and settlement systems in India.
CO4: Know the functions of RBI.
CO5: Understand legal environment for Insurance and banking.
CO6: Understand basic principal and practices of Insurance in India.

Course Contents

1. **Risk and Insurance**
   Concept of risk and its classification, Management of risk, Insurance as risk management technique, Functions of insurers, Classification of Insurance.

2. **The Basic Principle of Insurance:**
   Utmost good faith, Insurable Interest, Indemnity, Subrogation, Proximate cause. Insurance Contract, Reinsurance: Concept, types and advantages of reinsurance,

3. **Practice of Insurance**
   Life Insurance: Products, Riders, Options, Computation of Premium & Bonuses, documents and Claims
   General Insurance: Products, Rating, and Concept of Underwriting, Claims.

4. **Commercial Banking I**
   Introduction & meaning of a Bank, Structure of Banking System in India , Retail & Corporate Products of Commercial Bank, Credit Creation, Forms of Bank Customer Relationship, Types of customer and their accounts, Bank Duties and Rights.

5. **Commercial Banking II**
   Payment & Settlement System: Introduction, Clearing House System, Cheque Truncation System, NEFT, *RTGS, IMPS and other high tech innovations in banking*

6. **Central Banking**
   Introduction and Function of Indian Central Bank.

7 **Legal Environment- Insurance and Banking**
   Insurance Regulatory Authority- Profile, Function & Power
   Negotiable Instruments: Characteristics, Types including Cheques, Draft, Bill of exchange, Promisory notes

Text and Reference Books:

1. K C Shekhar and Lekshmy Shekher, Banking Theory and Practice, Vikas Publishing House Pvt Ltd.
2. Justin Paul and Padmalatha Suresh, Management of Banking and Financial Services, Pearson Education.
3. Roger Leroy Miller and David D Vanhoose; Modern Money and Banking; 3rd ed.; Mc Graw Hill.
4. D M Mithani, Money Banking, International Trade and Public Finance. Himalaya Publishing House.
5. Principle of Risk Management and Insurance by Geoge E Rejda, Pearson Education
6. Risk Management and Insurance; Trieschmann, Gustavson, Hoyt., Cengage Learning
7. Principle of Insurance, IC-01, Insurance Institute of India

IM-717FB

FINANCIAL PLANNING AND WEALTH MANAGEMENT

COURSE OUTCOMES

CO1: Understand the investment techniques as applied to various forms of securities and acquaint with the functioning of mutual funds, investment strategies and portfolio management services

CO2: Understand the importance of equity research.

CO3: Understand how excel can be leveraged for better analysis of a company

CO4: Recommendation based on fundamental and technical analysis

1. **Fundamentals of Personal Financial Planning**

Introduction to Financial Planning: Concept and approaches of Financial Planning, Components of Financial Planning, Financial Planning Process, Objectives, Concept of Personal Financial Planning,

2. **Avenues for Personal Investment**

Avenues of Personal Finance and their merits and limitations- Fixed Income Instruments, Mutual Fund Products, Equity Market, Derivatives and Commodities, Hedge Funds, Provident Fund and Pension Schemes, Insurance Policies & Other investments.

3. **Creating Personal Financial Plan**

Personal Financial Statements; Concept, Preparation, Cash inflows and outflows- Cash Management, Income and expenditure statement, Budgeting and forecasting, Monitoring budgets and provisions for savings, Personal Balance Sheet and Net Worth

4. **Considerations in Personal Financial Planning**

Tax Planning in Personal Financial Planning - Personal Taxes (IT, Wealth Tax and Property Taxes Etc.) and their role in Personal Financial Planning, Developing appropriate strategies and presenting the financial plan, Implementing the financial plan, Monitoring the financial plan, Ethical and professional considerations in financial Planning

5. **Retirement & Personal Financial Planning**

Introduction, Need & Issues in retirement planning, Analysis of Investor's Life Cycle, Avenues for retirement Planning, Types of retirement plans, Profile of Assets sustainable through retirement, Income generation potential of fixed assets , Liquidity aspects of fixed and other assets, Profile of financial and other liabilities near retirement age

6. **Housing, Real Estate & Personal Financial Planning**

Concept of Housing, Various Aspects of Housing, Costs and Benefits associated with owing a house, Rent or Buy Decision, Various options/types of House Financing, Key Considerations in Housing Decision, Concept of Real Estate, Features of Real Estate Investment, Taxation and Real Estate Planning, Property documentation and disposition, Housing, Real Estate and Personal Financial Planning.

7. **Wealth Creation- Factors and Principles**

Income and savings ratio, Allocation of savings to asset classes , Consistency in savings and monitoring , Taking strategic advantage of opportunities in various Asset Classes , Overall effective yield and tax aspects , Wealth protection and Erosion of wealth

Text Book:

Personal Financial Planning by Harold A. Wolf "Simon & Schuster Custom Publishing"

References:

1. Financial Planning and Wealth Creation "Taxmann Allied Services Pvt. Ltd.
2. Personal Finance "Pearson Education:

IM -715 FB

CORPORATE FINANCIAL ANALYSIS

COURSE OUTCOMES

CO1: Conceptual background for corporate financial analysis from the point of corporate value creation.

CO2: Develops theoretical framework for understanding and analyzing major financial problems of modern firm in the market environment.

CO3: Basic models of corporate capital valuation, including pricing models for primary financial assets, real assets valuation and investment projects analysis, capital structure, derivative assets and contingent claims on assets.

CO4: Developing skills in analyzing corporate behavior in capital markets and the relationship of agent and principal in raising funds, allocating capital, distributing returns.

COURSE CONTENTS

1. **Fundamentals of Corporate Financial Reporting and Analysis:** Introduction to Business Analysis, Types and Components of Business Analysis, Financial Analysis; its Need and Necessity, Financial Statements; the basis of business analysis, Inter-linkage Between Financial Statements, An Introduction to Tools/Techniques of Financial Analysis, Financial Reporting in India, Reporting Environment and Factors Affecting Statutory Financial Reports, Financial Accounting- Important Principles, Relevance, Limitations, Cash vs. Accrual Accounting.

2. **Balance Sheet Analysis:** Current vs. Non-current Liabilities, Analyzing Current Liabilities, Analyzing Non-current Liabilities, Analyzing Contingencies and Commitments, Off-balance sheet Financing and its Analysis, Analyzing Shareholders' Equity, Current vs. Long-term Assets, Analyzing Current Assets, Analyzing Long-term Tangible Assets, Analyzing Long-term Intangible Assets, An Introduction to Inter-corporate Investments and its Analysis, Case Studies' Analysis.

3. **Income Statement Analysis:** Concept of Income and its Measurement, Extra-ordinary and Special Items in Income Statement; Their accounting and Analysis, Revenue and Gain Recognition; Its recording and Analysis, Deferred Revenue Charges; Its recording and Analysis, Income Taxes; Its recording and Analysis, Return on Invested Capital and Analysis of Profitability, Case Studies' Analysis.

4. **Cash Flow Analysis:** Relevance of Cash, Concept of Cash Flow and Components of Cash Flow Statement, Analysis of Cash Flow from various activities and its Interpretation, Inter-linkages between overall inflow and outflow of cash, Inferences from Cash Flow Analysis, Specialized Cash Flow Ratios, Limitations of Cash Flow Reporting, Case Studies' Analysis.

5. **Cost Analysis for Financial Decision Making:** Concept of Cost and its Classification from the perspective of Financial Decision Making, Marginal, Absorption and Differential Costing, Concept of Relevant Cost, Income Statements under Marginal, Absorption and Differential Costing, Alternative Choices Decisions using Cost Analysis; Make or Buy, Add or Drop Product, Exploring New Markets, Sell or Process Further, Operate of Shut Down, Replace or Retain, Own or Hire, Expand or Contract, Special Orders, etc.

6. **Misc. Issues in Corporate Financial Analysis:** Prospective Analysis, Credit Analysis, Equity Analysis and Valuation, Recent Trends in Corporate Financial Analysis.

7. **Case Studies in Corporate Financial Analysis**

SUGGESTED BOOKS

- Financial Statement Analysis by Wild, Subramanyam and Halsey, McGraw-Hill Publication.
- Financial Statement Analysis by Gibson, Cengage Learning
- The Analysis and Use of Financial Statements by White, Sondhi and Fried, Wiley India Ltd

IM-718FB

Financial Engineering And Risk Management

Course Outcomes:

CO1: Ability to apply knowledge of mathematics, science, economics, in finance.
CO2: Ability to design financial instruments and risk management strategies.
CO3: Ability to identify, formulate, and solve financial problem.
CO4: Ability to communicate effectively the financial issues and the strategies to solve them;
CO5: The broad education necessary to understand the impact of financial engineering and risk management solutions in a global, economic, environmental, and societal Context;

COURSE CONTENT

Unit 1: Introduction to Financial Engineering: Financial Engineering: Concept and Scope, Factors which contributed to Growth -Environmental Factors (dividend capture strategy, tax asymmetries, etc.), Intra-firm factors (agency cost-leverage buyouts, risk aversion, quantitative sophistication) .Financial engineering v/s financial analysis. Financial Engineer: tools (conceptual and physical), Roles (deal makers, innovators, loophole exploiter)

Unit 2: Risk & Risk Management: Types of Risk: financial, non financial, default, market price, pre-settlement, basis, interest rate risk, etc. Developing risk profile. Risk management techniques: asset liability management (foundation concepts -term structure, maturity composition etc., cash flow matching strategy, currency matching strategy and portfolio immunization strategy) and hedging.

Unit 3: Physical Tools of Financial Engineer –I: A. Debt market innovations: Multiclass Mortgage backed and Asset backed Securities, Shelf Registration, junk bonds; Hybrid securities: Interest rate /Foreign exchange Hybrid, Interest rate / Equity hybrid , Currency /Commodity Hybrid

Unit 4: Derivatives Part –I: Introduction to forwards, futures and options Derivatives: Concept, Participants in derivative market, and Types of traders. Forward Contract: Concept and valuation. Forward Rate Agreement: the product and hedging with FRA (numerical), Futures Contract: Specifications, Trading, Types of orders, Operation of margins and future prices and spot prices.

Unit 5: Derivatives Part –II: Pricing Stock and Index Futures(numerical) , Hedging: concept of composite hedging and cross hedging , hedge ratio –naïve and minimal variance hedge ratio (numerical), hedging using stock Index futures contract and optimal number of contacts for hedging (numerical)

Unit 6: Derivatives Part –III: Option Contracts: Types ,Characteristics, Intrinsic value and time value , moneyness of the option, payoff from the put and call option. Hedging with stock option and index option . Option trading strategies : Basic strategies ; Option spreads : Vertical spreads (bullish :put and call and bearish: put and call)and Horizontal spreads . Straddle , Straps and Strips , butterfly spread.

Unit 7: Derivatives Part –IV: SWAP: concept and rationale . Interest rate SWAPS: Types (plain vanilla, accrediting , amortizing ,etc.) , mechanics and valuation (numerical) Currency SWAPS & their valuation Concept of Black Scholes Model and its limitations .

Suggested Books:-

1. Hull, J. C. (2011) .Options, futures, and other derivatives (8th ed.). Prentice Hall.

Varma, J. R. Derivatives and risk management.(1st ed.) Tata McGraw Hill Publications

IM 712 – HA
MANAGING PEOPLE

Course Outcomes:

CO1: Develop insight into the managerial skills required to effectively manage people in an organization and in order to achieve corporate goals successfully.

CO2: Develop understanding of functions of Human Resource Management for better management of firm's human resources.

CO3: Understand and observe trends enhancing the importance of HRM, challenges before the HR managers, HRD at macro and micro levels.

CO4: Understand the application of Human Resource Planning, recruitment, selection for getting right person at right job with right quality and in right quantity at right time for attaining organizational Outcomes.

CO5: Understand implications of work place changes for individuals and organizations and importance of understanding career development.

CO6: Understand forms of participation, govt. policies and participation, Work committees, joint management councils, empowerment, delegation and empowerment Quality of Work Life.

Course Contents:

I. HUMAN RESOURCE MANAGEMENT: Overview, Concept of HRM, objective of HRM, trends enhancing the importance of HRM, challenges before the HR managers, HRD at macro and micro levels, personnel function vs. HRM.

II. JOB ANALYSIS & HUMAN RESOURCE PLANNING: Nature of job analysis information, writing job description/job specification, employment planning, methods of employee demand forecasting.

III. RECRUITMENT, SELECTON, & ORIENTATION: concept of recruitment, sources of recruitment, recruiting a more diverse work force, concept of selection, features and types of selection, interviews, orientation – Meaning, process and importance.

IV. CAREER DEVELOPMENT: Meaning of career, concept of career from an individual and organizational view points, implications of work place changes for individuals and organizations, importance of understanding career development, career anchors, paths and ladders, career counseling and problems of dual career couples.

V. PARTICIPATION AND EMPOWERMENT: Definition and objectives, forms of participation, govt. policies and participation, Work committees, joint management councils, empowerment, delegation and empowerment QWL.

VI. GRIEVANCE: Meaning and sources, Guidelines and procedures for handling grievance

VII. COLLECTIVE BARGAINING AND DEVELOPING TEAMS:.Meaning and Process of collective bargaining. Developing Teams: Teams vs. groups, types of teams, team building, and team development.

Text Reading;

1. **Venkatratnam and Srivastava** – Personnel Management and Human Resources.
2. **Pattanaik Biswajeet** – Human Resource Management
3. **De Cenzo, Stefan Robbins** – Human Resource Management.

M-709 HA
HUMAN RESOURCE DEVELOPMENT

Course Outcomes:

CO1: Develop capabilities of all individuals working in an organization in relation to their present role
CO2: Develop capabilities of all such individuals in relation to their future role
CO3: Develop coordination among different units of an organization
CO4: Develop organizational health by continuous renewal of individual capabilities & keeping pace with the technological changes

COURSE CONTENT

I. CONCEPT OF HRD:- Evolution of Human Resources Development, objectives of HRD, Goals of HRD, Importance of HRD. A framework for the HRD process, HRD functions, Role of a HRD professional

II. ORIENTATION:- Company Orientation, Department Orientation, Orientation kit, Orientation Length and Timing.

III. TRAINING:- Defining Training, Objectives of Training, Types of training, Systematic approach to training, training methods

IV. PERFORMANCE APPRAISAL: Performance Appraisal Methods, Errors in performance appraisal

V. CARRIER PLANNING AND DEVELOPMENT: Coaching- Role of Supervisor and managers in coaching, Coaching to improve poor performance .process of employee coaching

VI. Counseling and Mentoring: Objectives of Employee Counseling , Employee counseling skills, functions of Employee counseling, Concept of mentoring, characteristics of Mentoring Principles of mentoring, Qualities of good mentor and mentee, importance of good mentoring, Role of mentor, Mentoring process, benefits of mentoring

VII. HRD STRATEGIES:-Formulation and Implementation of HRD Strategies, Creating a World Class Organization.

References:

1. Jerry W Gilley and Stevens A. England, "Principles of HRD", USA., Addison Wesley, 1989.
2. Lloyd L. Byars, Leslie W Rue, "HRM, Third Eddition"
3. T.V.Rao, "HRD Audit", New Delhi, Sage Publications, 1999.
4. "HRD", Randy Desimone, Jon M.Aner, David M.Harris
5. "Managing People",V.S.P, Rao, Excel Book, New Delhi.
6. "Human Resource Planning", Deepak Kumar Bhattacharya.
7. "Studies in HRD", H.L Verma, BS Bhatia, MC Garg

IM-711 HA

TRAINING AND DEVELOPMENT

COURSE OUTCOMES:

CO1: Induce new employees: Induce employee is the main aim of training and this is the most essential for a company.

CO2: Gain knowledge on a new method: Training and development help to gain knowledge on a new method.

CO3: Obtain knowledge of company policy: Employee should have sufficient knowledge about company policy for best performance. Training and development help employee to obtain knowledge of company policy.

CO4: Earn knowledge on customer relations: Gather information about customer relations is the major Outcomes of training and development.

COURSE CONTENTS:

1. **Introduction and Concept:** Overview of training and development, Present status of training, Conceptual status of training effectiveness

2. **Systems approach to training**

3. **Pre-factors (context) -** Learning principles, assessment of training needs, preparing training plans and strategies (OJT Institutional Training), selection of trainees etc.

4. **Training management (context) –** Training facilities, supporting infrastructure, areas of satisfaction and dissatisfaction, Training process - Instructor, pedagogy learning climate.

5. **Training outcomes:** Training outcomes – Evaluations

6. **Training & Development programs:** Self development / individual development.

7. **Executive development programs**- Management development programs

SUGGESTED BOOKS:-

1. Sah A K, Training and development.
2. Ramaswami A, Handbook of T& D.
3. Rolf P. Lynton, Training for organizational transformation.

IM-714 HB

STRATEGIC HUMAN RESOURCE MANAGEMENT

COURSE OUTCOMES:

CO1: Develop Advance flexibility, innovation, and competitive advantage.
CO2: Develop a fit for purpose organizational culture.
CO3: Able to improve business performance through strategic HRM through hiring, training, and rewarding employees.
CO4: Students will be able to look at ways that human resources can make a direct impact on a company's growth. HR personnel need to adopt a strategic approach to developing and retaining employees to meet the needs of the company's long-term plans.

1.Introduction: The changing economic, business, technological, socio-cultural and political environment and its implications for managing organizations and human resources; Business and organizational restructuring and its implications for human resource management; Corporate strategy and human resource management.
2.The HRM and approaches to HRM: HRM in personnel management; work organization and systems; social organization of the work place and its strategic importance; Human resource policies; Integrating Human Resource Strategies with corporate strategies; Human Resource Management as an approach to organization design and the role of HRM in organization management.
3.StrategicHRM: Human Resource Management in other countries; Human Resource Planning and its linkage to corporate planning; HR planning process, techniques/methods; HR planning in an on going organisation; integrating HR plans with other plans and management functions; Future directions of HR planning; Developing HR information system.
4. New HRM Trends: Technology and structure; Demographic changes, Temporary and contract labour; Global environment; Global competition,Global sourcing of labour.
5.**Online recruitment**; Employee referrals; Recruitment process outsourcing, Head hunting; Executive education; Flexi timing; Telecommuting Quality of work life; Work – life balance; Employee empowerment Employee involvement; Autonomous work teams.
6.**Creating a learning organization**: Competency mapping; Multi-Skilling , Using scorecards for employee development, Succession planning; Cross cultural training, Defining key result areas (KRA); Result based performance, Linking performance to pay; Merit based promotions,
Performance based pay; Skill based pay; Team based pay, Broad banding; Profit sharing; Executive Compensation; Variable pay.
7. **HR as a value added function**:Downsizing, Voluntary retirement schemes (VRS), HR outsourcing; Early retirement plans; Leadership, power and politics; Employee morale; Personal values and business ethics, Introduction to global HR strategies; Developing HR as a value added function.

Suggested Books:-

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

IM- 715 HB
HUMAN RESOURCE PLANNING AND AUDIT

COURSE OUTCOMES:

CO1: Identify performance of the Human Resource Department and its relative activities in order to assess the effectiveness on the implementation of the various policies to realize the Organizational goals.
CO2: Identify the gaps, lapses, irregularities, short-comings, in the implementation of the Policies, procedures, practices, directives, of the Human Resource Department and to suggest remedial actions.
CO3: Know the factors which are detrimental to the non-implementation or wrong implementation of the planned Programmes and activities.
CO4: Understand measures and corrective steps to rectify the mistakes, shortcomings if any, for future guidance, and advise for effective performance of the work of the Human Resource Department.
CO5: Will be able to evaluate the Personnel staff and employees with reference to the Performance Appraisal Reports and suggest suitable recommendations for improving the efficiency of the employees.
CO6: Able to evaluate the job chart of the Human Resource Managers, Executives, Administrative Officers, Executive Officers, Recruitment Officers, whether they have implemented the directives and guidelines for effective Management of the Human resources in their respective Departments.

Course Contents

1. Human Resource Planning: Definition, HR Planning, Model for HR Planning, forecasting Demand and Supply, Planning for Shortages, Surplus, Planning for New Establishment, Managerial Succession Planning, Career Planning.
2. Downsizing, HR information System: Purposes of HRIS, Uses of HRIS, Establishing an HRIS, Approaches to Evaluate HR Function.
3. HRD Audit: Meaning and Concept, Need, Designing HRD Audit Process, Parameters to be Audited, Audit Results, Preventive and Corrective Actions, Role in Business Improvement, Methodology and Limitations.
4. HRD culture: OCTAPACE Culture, Importance of Top Management Styles in Building Culture, Auditing the HRD Culture.
5. HRD styles : Types of top management styles , Current Structures and Structural Alternatives.
6. HRD Competencies: Challenges, Professionalism in HR, Myths and Realities of HRD, Competencies Needed, Auditing HRD Competencies, individual interviews, Group interviews, Observation, HRD Audit instruments.
7. HR Performance and Benchmarking in Policy, Process and Management Styles, Benchmarking Analysis.

Text Reading

1. Donald Currie, "**Personnel in Practice for the New IPD-CPP",** Blackwell, MA, 1997.
2. R. W. Mondy and R. M. Noe, "**Human Resource Management",** Prentice Hall, London, 6th Ed., 1996.
3. T. V. Rao, "**HRD Audit",** Response Books, New Delhi, 1999.

Suggested Reading

1. Satish Pai Ed., "**HRD Skills for Organizational Excellence",** Bombay, Himalaya Publishing House, 1999.

IM -716 HB

COMPENSATION AND REWARD MANAGEMENT

COURSE OUTCOMES:

CO1: Learn to Attract Top Talent in a company.
CO2: Learn to Retain & Reward Personnel for their performance
CO3: Learn to Boost Motivation
CO4: Learn to Maximize Return on Investments

Course Contents :

Unit 1: Concept of Wages & Salary, Minimum Wage, Fair Wage and Living Wage– Theories of Wages & Salary–Pay and Social Class–Machineries for Wage Fixation– Statutory provisions governing different components of reward systems–.Wage criteria and wage machinery— Wage Components—Salary Benchmarking, designing KRA & KPI(8 Lecture Hours)

Unit 2: Reward Management: Concept, Aims, Components of Reward system– Role of Reward in organization– Strategic perspectives of Reward–Reward as a motivational tool– Psychological contract–Reward policies Factors determining the rates of Pay–Strategic and Tactical pay related issues–Establishing Job Values and Relativities: Internal & External Equities–Job evaluation schemes, Internal Pay Structure, Reward survey–Designing Pay Level, Pay Mix and Pay Structures–Grade and Pay structures: Types, Design and Implementation— Group/Individual Incentive, Designing Incentive Scheme

Unit 3 Rewarding and Reviewing Contribution and Performance: Individual Contingent Pay–Team Pay – Paying for Organizational performance–Recognition Process–Performance Management and Reward. Reward for Special groups–Directors, Chief executives, Senior Managers, professionals and knowledge workers, Scientists and Engineers, Sales Staff, contingent workers –Components of Executive Compensation package.

Unit 4: Employee Benefits & Services– Rationale for employee benefits–Types of benefits, Choice of benefits, administering employee benefits, Tax considerations–Flexible benefits/Cafeteria Plans–Pension Schemes–ESOP-Computations of taxable income, overtime, etc.

Unit 5: Managing Reward Processes: Reward Management Roles–Reward Procedures–Controlling reward–Pay reviews–Communicating to employees–Managing the development of reward systems–Future Trends in Reward Management

Unit 6: Strategic Reward: Concept, Aims–Strategic Reward and Reward Management–Purpose and Contents of Reward

Unit 7: Strategic Reward and Performance–Reward strategies in a Knowledge economy–Reward Strategies in a Service-based economy–Developing reward strategy–Communicating reward strategy – Implementing reward strategy (10 Lecture Hours)

Suggested Books:-

1. Armstrong & Stephens, Employee Reward Management and Practice, Kogan Page
2. Strategic Reward, Armstrong & Brown, Kogan Page.
3. Henderson, R.O., Compensation Management, Englewood Cliffs, Prentice Hall
4. Armstrong, M and Murlis H, Reward Management, Kogan Page.
5. Cascio, Costing Human Resource, Thomson Learning,, India
6. Martocchio Joseph J., Strategic Compensation-A Human Resource Management Approach, Pearson Education.

Semester - VIII

VIII SEMESTER			
Core	IM-801B	Quality Management	**3**
Elective	IM – 813D	Dissertation	**3**
	IM – 802D	Decision Making Skills	**3**
MKT A (DUAL)	IM – 815MA	Product & Brand Mgt.	**4**
	IM – 816MA	Strategies & Modeling in Marketing	**4**
	IM – 817MA	Service Mktg.	**4**
MKT B (SINGLE)	IM – 817MB	Industrial Marketing	**4**
	IM – 815MB	Logistics and Supply Chain Mgt.	**4**
	IM-818MB	**Data Analytics**	**4**
FIN A (DUAL)	IM – 815FA	International Finance	**4**
	IM – 818FA	**Corporate Tax**	**4**
	IM – 816FA	Project Finance	**4**
FIN B (SINGLE)	**IM – 818FB**	**Data Analytics**	**4**
	IM – 816FB	Bank Management	**4**
	IM – 819FB	**Strategic Financial Management**	**4**
HR A (DUAL)	IM – 816HA	Performance Planning & Appraisal	**4**
	IM – 817HA	IR and Labour Laws	**4**
	IM – 815HA	Org. Development	**4**
HR B (SINGLE)	IM – 815HB	International Human Resource Mgt.	**4**
	IM – 8****	**Data Analytics**	**4**
	IM – 817HB	HR Based BPT	4
		6 subjects (spcl) * 4 valid credits each + 2 Subjects (1 of core, 1 of elective) * 3 valid credit + CV of 4 virtual credit Total= 34 credits (30 valid + 4 virtual)	

IM 801B
QUALITY MANAGEMENT

Course Outcome:

CO1: Understand the concepts of Total Quality Management.
CO2: Outline characteristics of Total Quality Management.
CO3: Explain the basic philosophy of Total Quality Management.
CO4: Identify concepts/tools/techniques of TQM such as Kaizen, Six Sigma, Benchmarking, pareto analysis, quality circles, fish bone diagram etc.
CO5: Keep abreast of changes in, and practical applications of, the field of systems and process improvement.
CO6: Understand the value of the process of learning and discovery.

Course Contents:

1. **Introduction :**Quality definition, product quality, service quality, dimensions of quality, quality evolution.
2. **Total Quality control** :Inspection QC, quality assurance, total quality control, other aspects of quality, rehabilitee, maintainability and availability.
3. **Total quality management** - Concept of total quality and guiding principles. Cost of quality.
4. **Quality Philosophy :**Quality management philosophies, Demming philosophies, Fourteen points of management, Juran philosophy, Quality triology, cross by philosophy comparison.
5. **Management Issues in quality :**TQM leadership and quality culture, Quality management and ethics, Focusing on customers – internal and external customers
6. **Quality Tools** :Quality improvement and problem solving, introduction to TQM tools and techniques, statistical process control
7. **Quality System** : quality circles Kaizen, bench marking, quality systems – ISO 9001:2000

References:

1. TQM : Text and Cases – K.S. Bhat
2. TQM – Besterfield
3. TQM – Ross
4. Quality – Donna, C.S. Summers
5. Quality Management – Goetsch
6. Principles Of Total Quality – Swift
7. Kaizen Strategy For Customer Care – Patricia Weillington

IM- 802D
DECISION MAKING SKILLS

Course Outcomes

CO-1: Explain the implications of recent cognitive research into human decision making for individual and group decision making
CO-2: Analyze organizational systems to identify opportunities to improve decision quality
CO-3: Apply tools, techniques and frameworks to solve a range of decision situations that managers commonly confront
CO-4: Apply an understanding of personal decision style to maximize effectiveness of individual and organizational decision making

COURSE CONTENTS

1. Introduction to Decision Making - Types of decisions, Art or Science
2. Theories to decision making, SWOC Analysis, Thompson's matrix. Porter's five forces model, Mc Kinsey 7S model. PEST model
3. Integrated Decision Making Process – Identifying the need, Means for deciding, possible options, trade offs
4. Types of Problem Solving Behavior.
5. Intervening variables in decision making.- Internal & External
6. Implementing Decisions – Communication and Acceptability of decisions, long term impact assessment
7. Group Decision making – Various stakeholders, collective bargaining process

SUGGESTED BOOKS

- Agarwal, R. D. Organization and Management. Tata McGraw-Hill Education. (1982).
- Harold Koontz; Cyril O'Donnell ,Principles of management; an analysis of managerial functions, New York, McGraw-Hill
- J Frank Yates, Decision Management, University of Michigan Business School, Wiley , India Edition

IM 813D
Dissertation

Course outcomes

- Considerably more in-depth knowledge of the major subject/field of study, including deeper insight into current research and development work.
- A capability to contribute to research and development work.
- The capability to use a holistic view to critically, independently and creatively identify, formulate and deal with complex issues.
- The capability to plan and use adequate methods to conduct qualified tasks in given frameworks.
- The capability to critically and systematically integrate knowledge to understand and solve management issues .
- The capability to clearly present and discuss the conclusions as well as the knowledge and arguments that form the basis for these findings in written form.
- The capability to identify the issues that must be addressed within the framework of the specific thesis in order to take into consideration all relevant dimensions of sustainable development.
- A consciousness of the ethical aspects of research and development work.
- **Nurtures academic insight -** The classroom teaching has certain limitations in terms of depth of subject that can be covered. MRP provides the student scope to explore the topic of choice in greater details. Exposure to an area of research undoubtedly also helps students explore career fields.

- **Enhances Observation skills** - The skill of research is not confined to the so-called academic research world. Research is an everyday practice of observation or data collection in order to make decisions or solve problems in an informed way. It happens in any organisation, and the demand for research skills are increasing.
- **Enhances inquisitiveness -** The ability to ask the right questions about a situation, to decide on the information required understanding the issue, to gather the information and analyse it in a rigorous way, and to develop sound recommendations is a much-needed skill for leaders. MRP helps in equipping MBAs with such skill, which helps them in decision making.

- **Out of class learning** - The capacity of leaders to keep learning and to discover new insights has increasingly become a sought-after skill. This demands formal research initiatives by practitioners and it also requires the ability to listen intelligently to the information signals emitted from everyday activities, from inside as well as outside the organisation – and to learn from these. MRP helps build up on these skill sets.

- **Accentuation of Integrated thinking -** Organizations need leaders who can rise above the paradigms of their own functional expertise; leaders who can see the bigger picture. MRP helps the students to put his learning in a proper perspective and gain a holistic view of all functional areas.

All these qualities do offer an indirect benefit to the student during campus recruitment

Prerequisites

A student becomes eligible for MRP if he scores a CGPA of more than 7.00 till semester VII. MRP is assigned only to top 20 percentile of the students of the class.

Mentoring

Each of the student is assigned a research supervisor from the faculty members on the basis of topic selected by the student. The student gets an opportunity to interact with him/her regularly on a one to one basis.

Best Project Award

The best project is selected from each functional area , i.e. Finance, Marketing and HR. The selected project is awarded a certificate during the passing out cere

IM-816 MA

Strategies & Modeling in Marketing

Course Outcomes

CO1: Review concepts and techniques in marketing.
CO2: Acquaint with the duties of a marketing manager.
CO3: Exposed to the development, evaluation, and implementation of marketing management in a variety of business environments.
CO4: Learn strategic and managerial focus and to perform the role of a marketing manager.

Course Content:

1. Strategic Marketing: Basic concept of strategy, Strategic management, Strategic planning at corporate, SBU and operational level, Strategic marketing, Marketing management, Process of strategic marketing.

2. Strategic analysis: Corporate appraisal, understanding competition, analyzing customers, scanning the environment.

3. Strategy Formulation: Analysis models, portfolio analysis, strategy selection, segmentation, targeting, differentiation and positioning.

4. Market strategy: Dimensions of market strategy, strategies for new, growing, mature and declining markets.

5. 4 P's strategy : Product Strategy: launch, relaunch, Positioning, repositioning, overlap, scope, design, elimination, and new product strategies.**. Pricing Strategies:** Factors affecting prices, initiating and responding to price changes, New product, product mix, Discriminatory pricing strategies, formulating strategies for price leadership. **Distribution strategies:** Channel structure strategy, channel mix, modification, control and management strategies. **Promotion strategies:** Strategies for developing promotional prospective, Promotion mix strategies.

6. Implementation and control of marketing strategies.

7. Marketing models and their applications : science and marketing models, types, purpose and development of models, decision support models, theoretical modeling in marketing .Application of models**:** Consumer behavior, Organizational Buying, New product Development and advertising.

Text Reading:

1. Subhash C. Jain, 'Marketing Planning and Strategy', 'India : Thomson- South Western.

2. Ferrell, 'Marketing Strategy', India: Cengage

3. Lilien, G.L: Kotler Philip and Moorthy, K.S., ' marketing Models' India : PHI

4. Kotler Philip, 'Marketing Management' India : PHI

5. Kotler Philip, 'Marketing Management- a south asian perspective', India: Pearson

IM 817 MA
Service Marketing

IM – 817MA Service marketing

Course Outcomes

CO-1: Understand the importance of the service industry which is going through a period of revolutionary change.

CO-2: Acquire core competencies & skill sets to make a successful career in the service sector.

CO-3: Inculcates a service culture among students interested in a career in service sector.

Course Contents :

1.Understanding Service Markets, Products and Customers

Services Perspective: service concept, service marketing triangle, and evolution of service marketing, reasons for growth of service sector, difference B/w Goods & services, and I's of services, classifications of services,

2.Segmentation. Targeting & positioning in services : meaning and strategies

3. Service products : Service products: meaning of service product, service product levels, PLC, new service, service product range, process of new service development, and reasons for success or failure of new services –products, service product elimination.

4 .Pricing Services and Distributing Services: price terminologies, costs of service incurred by customers, pricing tripod, pricing objectives, formulating pricing strategy, price tactics. Elements of distribution, methods of distributing services.

5. Services marketing communication: Promotional objectives, developing the promotion mix, key aspects of communication for the service marketers.

6. Extended P's of Service marketing :1) Designing and managing **service processes**: service blue –print, steps in service process, self reinforcing service cycle.

2) Crafting the Service Environment: elements of **physical evidence**, kinds of physical evidence, roles of service escape, approaches for understanding services escape effects, guidelines for physical elements strategy.

3) Managing **People** for Service Environment: service personnel, service personnel quality, maintaining improving services personnel quality & performance, personnel audit, models of customer's as users of services.

7. Implementing Profitable Service Strategies

1) Service quality: impact of service quality, approaches to service quality, dimensions of service quality, models of service quality, SERVQUAL instrument, service productivity.

2) Designing a service strategy: internal marketing, external marketing, interactive marketing.

Text Readings

1. Zeithml, V.A. & Bitner, Mary, Jo. (2011).Services marketing. Tata- McGraw- Hill Edition.

References

1. Lovelock,C., Wirtz, J., Chaterjee, J. (2011).Services marketing. Pearson Prentice Hall.
2. Shankar, R. (2011). Services marketing. Excel Books.

IM-815 MA
PRODUCT AND BRAND MANAGEMENT

Course Outcomes

CO1: Understand various concepts involved in learning Product and Brand Management for the success of any concern.

CO2: Understand how the product manager implements business strategy in the marketplace and to acquaint the students with the process and strategies of new product management.

CO3: The course also explores the methodology for managing the cohesive development and marketing of new products from idea inception to product discontinuation.

CO3: Able to apply these principles at the consumer level that will improve managerial decision-making with respect to brands.

COURSE CONTENTS:

1. Product Management: Introduction and concept of product, Product components, objectives of Product Management, Roles of Product Manager.

2. Product mix and product line decisions, Growth strategies for the FMCG.

3. New Product Development :Routes of new product development, Process of new product development, the latent factors behind marketing success and failure of any new product, Product elimination strategies

4. Brand Management: Branding concept, Benefits of Branding, Brand perspectives, Characteristics of a Brand, Branding decisions **,** Global branding: Concept, advantages and disadvantages

5. Brand Personality and Brand Extension : Brand Personality :Introduction, concept Types and brand personality scale .Brand Extension: Types of Brand extension, Strategies for successful brand extension

6. Brand positioning and repositioning : concept and methods of positioning and repositioning

7. Brand equity and Brand loyalty : **Brand Equity :Introduction and concept of brand equity**, **Cost based, price based, customer based Methods . Brand Loyalty: Concept, Loyalty pyramid**

Books recommended:

1. Product Management by R. Majumdar
2. Strategic brand management by Kevin Lane Keller.
3. Brand Management by Y.L.R.Moorthy.

- **Collateral Readings for Brand Management:**
  Doyle, P. (1989), " Building successful brands : The strategic options" , Journal of Marketing Management.
  Kapferer, J.- N.(1997), Strategic Brand management.

IM 815 MB
LOGISTICS AND SUPPLY CHAIN MANAGEMENT

Course Outcomes

CO-1: Developed advance quantitative models and methods in logistics and supply chain management and its practical aspects and the latest developments in the field.

CO-2: Understand Supply Chain Management and its relevance to today's business decision making.

CO-3: Gain the knowledge of possibilities of efficient optimization and management of operation in Logistics Management and also the ability to apply them in the enterprise reality.

Course Contents

1. **Introduction to logistics & Supply Chain Management;** Definition, Importance & Scope; Operational objectives of logistics; Logistics functions; Difference between Logistics &SCM; Logistics interface with production and marketing & Value added role of Logistics.
2. **Transportation systems.:** Functions & Principles of Transportation; Participants in Transportation Decision making, Elements in transportation Infra structure, Transportation Planning Parameters (Components of Transportation Decision), Modes of transportation, Modal characteristics & Comparison. Transportation Practices across different modes. Concept of Multimodal Transportation & Containerization
3. **Warehousing and distributing centers & Inventory Control:-** Evolution of strategic warehousing their location; Functions of Warehouse, Economic & Service benefits of warehouse, Principles of Warehouse Design, Warehousing alternatives, Warehousing Strategy(Location, Type, No of warehouses), Inventory management decisions;
4. **Packaging and materials handling:-** Material handling importance & scope, Material Handling Principles, Types of Material Handling Equipments, Unitization & Palletization, Packaging & Labelling, Importance & scope, Types of Packaging, Functions of Packaging.
5. **Innovations in Logistics (Use of Information Technology In Logistics & Supply Chain Management & Logistics future directions):-** Information Functionality in Logistics & SCM, Use of Information Technology in Transportation, Warehousing & Material Handling, Automated Storage / Retrival Systems, Information Directed Systems.

   Dispatch and routing decisions **:-** Challenges posed by routing, Principles of proper routing plan. Routing Decisions & Analysis.
6. **Legal Aspects in Logistics:-** Legal Aspects pertaining to Road, Rail, Water & Air Transport.
7. **International logistics management:**Documentation & Procedures, Logistics system analysis and design; Logistics audit and control, Supply Chain Integration**.**

Suggested Books

1. Bowersox, Closs, Cooper **"Supply Chain Logistics Management".** The McGraw- Hill Companies.
2. Bhattacharyya S.K. "**Logistics Management**" . S.Chand & Company.
3. Ballau, Renald H, "**Business Logistics Management"**. Englewood Cliffs, New York: Prentice Hall Inc, 1992.
4. Beal K. "**A Management Guide to Logistics Engineering"**. U. S. A. Institute of Production Engineering, 1990.
5. Benjamin S. B. "**Logistics Engineering and Management"**. Englewood Cliffs, New York: Prentice Hall Inc., 1996.
6. Bowersox, D J and Closs, D. J. "**Lotistics Management: A system Integration of Physical Distribution",** New York: MacMillan, 1986.
7. Christopher, M. "**Logistics and Supply Chain Management: Strategies for Reducing Costs and Improving Services"**. London: Pitsman, 1992.

IM-818 MB DATA ANALYTICS

Course Outcome: Student will…….

Co1:-Discuss the role of data analytics in quality and performance improvement efforts.
Co2:-. Describe the tools and techniques used for data analytics in Business organizations.
Co3:-. Identify techniques to communicate insights gained from data analysis.

Course Content

Unit -1 Basics of Data Analytics
Understand need of data analytics, application of data analytics, data and types of data, concept of data and information, data analytics and business analytics
Unit -2 Data Analytics Using Advance Excel
Ms Excel formulas, Pivot tables, Graphs, conditional formatting, Lookups, Text, Dates and IF statements, Data Distributions, Correlation and Regression
Unit -3 Reporting types
Difference between reporting and analysis, Reporting tools, Standard report formats, Machine learning, summary reports and frequency tables using base SAS procedures
Unit-4 **Basics of SAS**
Create temporary and permanent SAS data sets, Create and manipulate SAS date values, Use DATA Step statements to export data to standard and comma delimited raw data files, Control which observations and variables in a SAS data set are processed and output
Unit-5 Managing Data using SAS
Investigate SAS data libraries using base SAS utility procedures, Sort observations in a SAS data set, conditionally execute SAS statements, Use assignment statements in the DATA step, Modify variable attributes using options and statements in the DATA step, Accumulate sub-totals and totals using DATA step statements, Process data using DO LOOPS, Process data using SAS arrays
Unit -6 Advance SAS
Demonstrate advanced data set processing techniques such as updating master data sets, transposing data, combining/merging data, sampling data, using generation data sets, integrity constraints and audit trails Reduce the space required to store SAS data sets and numeric variables within SAS data sets by using compression techniques, length statements or DATA step views, Use PROC DATASETS to demonstrate advanced programming skills (e.g. renaming columns, displaying metadata, creating indexes, creating integrity constraints, creating audit trails)
Unit -7 Data Analytics in real-time
Scope and Future of Data Analytics, Banking and Securities Case study(NSE XLS and Predictions),Media and Entertainment Case study(TRP Analysis),Healthcare Providers Case study, Education and Data analytics, Manufacturing and Natural Resources Case Study

Reference Books
1. Mining of Massive Datasets By: Jure Leskovec, Anand Rajaraman, Jeff Ullman Publisher: Cambridge University Press
2.Excel: Formulas & Functions Book by Robert Dinwiddie Publisher: DK Publishing
3. SAS Clinical Programming: by Y. Lakshmi Prasad Publisher: Notion Press

IM-817MB
INDUSTRIAL MARKETING

COURSE OUTCOMES

CO-1: Understand industrial markets and relevant industrial marketing strategies.
CO-2: Market structures and demand in business markets.
CO-3: Understand the nature and role of industrial markets
CO-4: Explain the characteristics of industrial markets and buying situations
CO-5: Understand how to develop and implement relevant industrial marketing strategies.

Course Content:

1. The nature and concepts of industrial marketing. Industrial verses Consumers Marketing, Economic of Industrial Demand. Resellers Marketing.
2. Understanding Industrial Marketing, organizational customers, governmental agencies, institutions, classifying industrial products, characteristics of Organizational Procurement.
3. Industrial Marketing Environment, strategies for managing the Industrial Marketing Environment. Strategic Planning Process in Industrial Marketing.
4. Organizational Buying and Buyer Behaviour: Concept and Model of Organizational Buying Behaviour.
5. Interpersonal Dynamics of Industrial Buying Behaviour. Buying Center Involvement and Interaction Patterns, Joint Decision Making, Conflict and Resolution in Joint Decision Making, the Buying Committee, Supplier Choice and Valuation.
6. Industrial Market Segmentation, Basis for Segmenting Industrial Market, Target Marketing and positioning. Business Pricing: Price Determinants, Pricing Decisions.
7. Formulating Channel Strategies: Marketing Channel Participants, Physical Distribution and Customer Service, Formulating and Marketing Communication Person Selling, Advertising, Sales Promotion and Publicity.

Text Readings

1. Robert R. Reeder, Edward G. Briety and Betty H. Reeder, Industrial Marketing, Analysis, Planning and Control, New Delhi, PHI 2nd Edition, 1998.
2. Krishna K. Haviadr, Industrial Marketing, New Delhi, Tata McGraw Hill; 2002

Suggested

1. Michael H. Moris, Industrial Marketing and Organizational Marketing, New York, MacMillian, 2nd Edition, 1992.

IM-818FA
CORPORATE TAXATION (MAJOR)

Course Outcomes

CO1: **E**nable to understand the tax provisions related to individual and companies and compute the tax liability. Level of knowledge expected from the students after completion of course is working knowledge.

Course Contents:

1. **Introduction:** Introduction and brief history of income tax, definitions Corporation tax, Tax Planning, Tax Evasion, Tax Avoidance, Tax Management, Dividend Tax, Indian Company, Foreign Company.
2. **Computation of Total Income and Tax Liability of Companies:** Income from business, capital gain, income from other sources, Gross Total Income, Deductions from Gross Total Income, computation of Total Income. Introduction to MAT, FBT and Dividend Distribution Tax
3. **Special Tax Provisions:** Tax provisions in respect of Free Trade Zone and Special Economic Zone, Tax provisions in respect of Infrastructure Development, Tax provisions in respect of Backward Areas,
4. **Amalgamation related tax issues.**
5. **Tax Payment:** Tax deduction at source, Tax collection at source, and Advance payment of tax.

6. **The Wealth Tax Act, 1957**: Introduction of wealth tax, meaning, scope and incidence of tax, Assets included for wealth tax, assets exempted from wealth tax, deemed assets,

7.**Central Excise and Custom Duty**: Meaning and important provisions.

8. **Service Tax:** Background and nature of service tax, Value of service tax, Exemption from of service tax, Classification of services, Procedure of service tax, other important provisions.

9. Introduction to Value Added Tax (VAT)

Books:

Direct Taxes Planning and Management by V.K. Singhania
Corporate Tax Planning and Management by H.C. Mehrotra
Students' Work Book on VAT and Service Tax by V. S. Datey
Study Material published by ICSI, Financial Dailies and journals like Business Standard, The Economic Times and Financial Express, Economic and Political Weekly

IM-816 FA
PROJECT FINANCE

Course Outcomes

CO-1: Understand what project finance is, its necessary elements, why it is used, how it is used, its advantages and its disadvantages.

CO-2: Able to identify projects that meet the essential criteria for a project financing and know how to create the structure for a basic project financing.

CO-3: Understand the necessary elements critical to project financing to include product markets, technology, sponsors, operators, off takers, environment, consultants, taxes and financial sources.

CO-4: Apply the fundamental risk allocation principle of assigning risks and tasks to the party most capable of handling them. Various sources of financing will be discussed including commercial banks, equity sources, the bond markets and leasing.

CO-5: Financial modeling will be used as an important tool in understanding the economics, risks and sensitivities of a project.

1. INTRODUCTION: Capital Investment Process, Classification of Projects, New concepts in Financing and execution of projects, Incentives in Project Planning, A review of Financial Appraisal-of-a-Project.

2. SOURCES OF PROJECT FINANCING: Important Issues in Project Financing, Medium and Long-term Sources of Project Finance, Financing through Markets and Public Issues, Financing through Banks and other Financial Institutions, Loan Syndication, Corporate Taxation and its impact on Project Financing, Working Capital Financing, Misc. Sources of Project Financing, Sources of Raising Capital in International Markets, Project Financing Structures and Financial-Closure.

3. ESTIMATION OF INVESTMENT AND COST OF PROJECT: Objectives of Estimating Investment in Projects, Components of Investment in Projects, Basis of Estimation of Investment in Projects, Importance of Cost of Project, Cost of Various Sources, Calculation of WACC, Factors affecting WACC, Leverage Analysis and Project Financing, Numerical Problems/case studies.

4. FINANCIAL ESTIMATES AND PROJECTIONS: Estimating Working Capital Requirements, Estimation of Profitability and Financial Position, Preparation of Projected Income Statement, Projected Cash Flow Statement and Projected Balance Sheet, Numerical Problems/case studies.

5. ESTIMATION OF PROFITABILITY OF PROJECTS: A review to Time Value of Money, Investment Criteria for Project Decisions, NPV, Benefit Cost Ratio, Internal Rate of Return, etc., Assessment of Various Methods, Investment Evaluation in Practice, Multiple Projects and Constraints, Special Decision Situations, Numerical Problems/case studies.

6. RISK ANALYSIS IN PROJECT FINANCING: Sources, Measures and Perspectives on Risk, Risk Analysis Methods; Managing Risk in Projects, Project Selection under Risk, Risk Analysis in Practice, Risk Analysis by Financial Institutions, Numerical Problems/case studies.

7. MISC. ISSUES IN PROJECT FINANCING: Financing Infrastructure Projects, Financing Power and Telecommunication Projects, Infrastructure Financing Scenario in India, Financing of Venture Projects, Current and Emerging Trends in Project Financing in India.

Text Book:

"PROJECTS" by Prasanna Chandra, Tata Mcgraw Hill Publishing Company Ltd.,Latest Edition References: 1) "Project Management and Control" by Narendra Singh, Himalaya Publishing House 2) "Project Management" by Vasant Desai, Himalaya Publishing House 3) "Strategic Financial Management" by Ravi M. Kishore Taxmann Publishing Pvt. Ltd.

IM 815 FA

International Finance

Course Outcomes

CO-1: Gain knowledge of international finance issues, international financing/ investing activities and international financial markets.

CO-2: Understand the knowledge capability and skills necessary for making sound financial decisions for a multinational firm.

Pre-Requisites

This course is being offered as a specialization course for post-graduate students opting Finance as specialisation. The student must have an understanding to basic Principles of Financial Management, Capital and Money market, Indian Financial System.

Course Content

1) Growth & Evolution of International Business: Historical aspect of international trade and finance, Understanding of various financial crisis and there reasons, World Trade Organisation, Trade Blocs

2) International Monetary System: Need for the system, IMF, World bank, Asian Development bank , other prominent institutions

3) Exchange rate regimes : Gold Standard, Fixed and Flexible exchange rate, Managed float, Currency board, Exchange Rate Regimes in India, LERMS

4) International Trade & Balance of payments: Concept of BOP, Indian BOP crisis and reforms, "India's BOP- critical analysis of Present and Past

5) Foreign Exchange Management: Foreign Exchange Market and Mechanism, Exchange Control Regulations & Role of RBI, Exchange Market Intervention

6) Theories of Exchange rates: Purchasing Power Parity, Interest Rate Parity, Asset Market Models of Exchange Rate Determination, Short Term Theories of Exchange Rate Determination

7) Management of MNC's: Foreign Direct Investment, Drivers of MNC, Strategic Entry Options to MNC's, Country Risk management Financing Foreign Operations - Sources of Long term finance, ADRs, GDRs, FCBs, Euro bonds etc, International Banking Transactions for Export & Import

Text Books & Other references:

1) International Financial Management, P.G.Apte, Tata McGraw Hill
2) Multinational Financial Management, Madhu Vij, Excel Publications
3) "International Financial Management", Alan Shapiro
4)"Global Finance", Eng, Lee, Maur, Addison Wesley Ltd.
5)"Global Corporate Finance", Keith Pilbeam

IM-818 FB DATA ANALYTICS

Course Outcome: Student will…….

Co1:-Discuss the role of data analytics in quality and performance improvement efforts.
Co2:-. Describe the tools and techniques used for data analytics in Business organizations.
Co3:-. Identify techniques to communicate insights gained from data analysis.

Course Content

Unit -1 Basics of Data Analytics
Understand need of data analytics, application of data analytics, data and types of data, concept of data and information, data analytics and business analytics
Unit -2 Data Analytics Using Advance Excel
Ms Excel formulas, Pivot tables, Graphs, conditional formatting, Lookups, Text, Dates and IF statements, Data Distributions, Correlation and Regression
Unit -3 Reporting types
Difference between reporting and analysis, Reporting tools, Standard report formats, Machine learning, summary reports and frequency tables using base SAS procedures
Unit-4 **Basics of SAS**
Create temporary and permanent SAS data sets, Create and manipulate SAS date values, Use DATA Step statements to export data to standard and comma delimited raw data files, Control which observations and variables in a SAS data set are processed and output
Unit-5 Managing Data using SAS
Investigate SAS data libraries using base SAS utility procedures, Sort observations in a SAS data set, conditionally execute SAS statements, Use assignment statements in the DATA step, Modify variable attributes using options and statements in the DATA step, Accumulate sub-totals and totals using DATA step statements, Process data using DO LOOPS, Process data using SAS arrays
Unit -6 Advance SAS
Demonstrate advanced data set processing techniques such as updating master data sets, transposing data, combining/merging data, sampling data, using generation data sets, integrity constraints and audit trails Reduce the space required to store SAS data sets and numeric variables within SAS data sets by using compression techniques, length statements or DATA step views, Use PROC DATASETS to demonstrate advanced programming skills (e.g. renaming columns, displaying metadata, creating indexes, creating integrity constraints, creating audit trails)
Unit -7 Data Analytics in real-time
Scope and Future of Data Analytics, Banking and Securities Case study(NSE XLS and Predictions),Media and Entertainment Case study(TRP Analysis),Healthcare Providers Case study, Education and Data analytics, Manufacturing and Natural Resources Case Study

Reference Books
1. Mining of Massive Datasets By: Jure Leskovec, Anand Rajaraman, Jeff Ullman Publisher: Cambridge University Press
2.Excel: Formulas & Functions Book by Robert Dinwiddie Publisher: DK Publishing
3. SAS Clinical Programming: by Y. Lakshmi Prasad Publisher: Notion Press

IM 816 FB
BANK MANAGEMENT

Course Outcomes

CO-1: Understand essence of commercial banking business;
CO-2: Examine latest trends and regulations in commercial banking arena;

COURSE CONTENTS

1. Bank's role as financial intermediaries, Basic Principles of Banking, Some Important **Legal Provisions** Relevant for Bankers.

2. **Evaluation of Bank Performance:** Introduction and analysis of financial statements of banks operating in India. Non-interest incomes and non-interest expenses in Indian banks. Key performance indicators for Banks CAMELS Ratings, alternative models of bank performance.

3. **Bank Customer Relationship:** Bank customer, Forms of bank customer relationship. Types of customer and their accounts. Bank's duties and rights, Termination of bank customer relationship.

4. **Sources of Bank Fund I-Deposits and Non Deposits:** Basic Concepts, types of Deposits, Deposit insurance, Deposit pricing, Non-deposit sources. Nomination facility of deposit accounts. Reserve requirement and computation of NDTL for banking system in India, Non deposits sources for banking system in India**.**

5. **Source of Bank Fund-II Capital:** Function of bank capital, Bank capital standards, Basel Committee.

6. **Use of Bank Fund-I Lending:** Purpose, security and modes of credit delivery, Broad steps to credit analysis, risk classification criteria, Fixed vs floating rate, Legal Aspect of Lending. Prudential norms, Loan sales.

7. **Use of bank fund II-Investment:** Basic concepts, VaR, Banks investment portfolio in India.

BOOKS:

1. "Management of Banking" - S. Scot McDonald and Timothy W. Koch, Thomson.
2. "Management of Banking and Financial Services" Justine Paul and Padmalatha Suresh, Pearson Education.
3. "Commercial Bank Management" Kanhaiya Singh , McGraw Hills Education
4. "Bank Management and Financial Services" Peter Rose and Sylvia C Hudgins, McGraw Hills Education
5. "Financial Institutions and Markets" L.M Bhole, Tata Mc Graw Hill Publishing Company, New Delhi.
6. "Bank Financial Management" S N Swastikar, Taxmann Publication Pvt. Ltd.

IM 819FB
STRATEGIC FINANCIAL MANAGEMENT

Course Outcomes:

CO1: Understand recent trends and practices in strategic Finance and to understand role and responsibility of chief financial officer.

CO2: Understand the project financing, inflow and outflow of cash and various methods of capital budgeting which helps in selection of projects.

CO3: Understand the dividend decisions and their impacts on financial requirements of the Company. To introduce them with income tax and Companies Act provisions related to dividend distribution.

CO4: Evaluate the sources of short term finance, introduction to Start up Financing and its challenges.

CO5: Understand working capital requirements for different forms of businesses, sources of working capital finance, introduction of alternate sources of working capital.

CO6: Understand practical approaches for business valuation.

CO7: Choosing suitable financial strategies after evaluation of various options available to restructure the corporate firms.

COURSE CONTENTS

1. Basic Themes In Finance : Valuation, Return And Risk.
2. Corporate Strategy, Value And Excellence
3. Valuation Of Large Scale Investment
4. Economic Value Addition
5. Capital Allocation Multiple Projects
6. Strategies For Resource Allocation
7. Capital Structure And Corporate Planning
8. Information Signaling, Dividend Decision & Corporate Strategy
9. Financial Policy And Flexibility
10. Financial Distress And Re-Organization
11. Strategic Technology Alliances : Valuation, Risk & Optionality
12. Corporate Governance
13. Financial Management In Knowledge Intensive Companies
14. Future Of Finance Function- The Role Of E-CFO

BOOKS:

1. Corporate Finance Principles By Brealey & Mayers, MC Graw Hill
2. Financial Management : Prasanna Chandra

JOURNALS :

1. Harvard Business Review
2. Management Decision
3. The Paradigm
4. Economic And Political Weekly
5. The Mc Kinsey Quaterly

IM 817HA

INDUSTRIAL RELATIONS AND LABOUR LAWS

Course Outcomes

CO-1: Acquainted with various rights and benefits available to the workmen under the legislations.

CO-2: Learn the importance of the maintenance of Industrial Peace and efforts to reduce the incidence of strikes and lockout and industrial strike are to be emphasized.

CO-3: Understand the multidimensional complexities of industrial relations to enable him to develop the right perspective of this delicate responsibility to deal with union constructively.

Course Contents

1. **Industrial Relations in India**: Overview and Appraisal, Industrial Disputes Act, 1947.
2. **Workers Participation in Management** (WPM): Meaning, Objectives, Essential Conditions, forms, Reasons for Limited Success and Suggestions for Improvement, WPM in India.
3. **Collective Bargaining**: Meaning, Functions, Process and Prerequisites.
4. **Industrial Employment**: Concept, Standing Orders Act, 1946.
5. **Trade Unions**: Meaning, Functions, Problems, Trade Union Movement in India and Trade Union Act, 1926
6. **Factories Act**, 1948, E.S.I.C. Act, 1948
7. **Payment of Gratuity Act**, 1972, Contract Labour (Regulation and Abolition) Act, 1970

Suggested Books

1. R. C. Chawla and K.C. Garg, "Industrial Law", Ludhiana, Kalyani Publishers, 1993.
2. P.L. Malik, "Industrial Law", Lucknow, Eastern Book Co., 1995.
3. J.K. Bareja, "Industrial Law", New Delhi, Galgotia Publishing Co., 2001.
4. M.Y. Pylee and George Simon, "Industrial Relations and Personnel Management", New Delhi, Vikas Publishing House, 1996.
5. P Subba Rao, "Essentials of Human Resource Management and Industrial Relations: Text, Cases and Games", Mumbai, Himalaya, 2000.

IM 815 HA

ORGANISATION DEVELOPMENT

Course Outcomes

CO-1: Understand importance of Organization Development, and to offer insights into design, development and delivery of OD programmes.

CO-2: Acquire knowledge and skills in solving organizational problems in order to bring improvement in performance in organization.

CO-3: Capability to see organizational issues from a number of perspectives with many possible solutions.

Course Contents

1. Introduction: Definition, History, Assumptions, Values and Beliefs in O.D, Organization Development & Transformation
2. Theory and Management of OD: Foundations of OD, OD Process, Action Research and OD.
3. OD interventions: Overview, Types, Team interventions, inter- Group interventions.
4. Comprehensive and Structural interventions. Choosing the Depth of Organizational Intervention.
5. Issues and Considerations in OD: Consultant-Client Relationships, System Ramifications, and Power- Politics.
6. Emerging Trends in OD with special emphasis on future organizations.
7. Research on OD, Case studies in OD

Suggested Books:

1. Wendell L. French and Cecil N. Bell Jr., "**Organization Development"** New Delhi, Prentice Hall.
2. Don Harvey and Donald R. Brown, "**An Experiential Approach to Organizational Development",** New Jersey, Prentice Hall Inc.
3. Wendell L. French Cecil H Bell, Jr., Robert A. Zawaski. (Eds.), "**Organizational Development and Transformation: Managing Effective Change",** Illinois: Irwin Inc., 1994.

IM 816 HA

PERFORMANCE PLANNING AND APPRAISAL

Course Outcomes

CO-1: Implement and manage performance management system in support of the strategic goals of the organization.

CO-2: Comprehend what is meant in an organization performance and how its planning is important in an organization with respect to attaining and maintaining a contented work force for the larger objective of having a competitive edge in the industry.

Course Content:

1. Overview of Performance Planning and Appraisal

2. New objectives of Performance Appraisal

3. Purpose of Performance Appraisal, Uses of Performance Appraisal

4. Designing of Performance Appraisal System, Steps of Performance Appraisal Process, Essentials of Good Performance Appraisal System

5. Methods of Performance Appraisal

6. Performance appraisal in a government organization

7. Performance appraisal in a private organization

Test books & other references:

- Organization Behavior by Robbins
- Personnel / Human Resource Management by De Cenzo and Robbins
- Handbook on Organizational Performance – Johnson and Redman
- Designing and Managing HR Systems- Pareek and Rao.

IM-818 HB DATA ANALYTICS

Course Outcome: Student will…….

Co1:-Discuss the role of data analytics in quality and performance improvement efforts.
Co2:-. Describe the tools and techniques used for data analytics in Business organizations.
Co3:-. Identify techniques to communicate insights gained from data analysis.

Course Content

Unit -1 Basics of Data Analytics
Understand need of data analytics, application of data analytics, data and types of data, concept of data and information, data analytics and business analytics
Unit -2 Data Analytics Using Advance Excel
Ms Excel formulas, Pivot tables, Graphs, conditional formatting, Lookups, Text, Dates and IF statements, Data Distributions, Correlation and Regression
Unit -3 Reporting types
Difference between reporting and analysis, Reporting tools, Standard report formats, Machine learning, summary reports and frequency tables using base SAS procedures
Unit-4 **Basics of SAS**
Create temporary and permanent SAS data sets, Create and manipulate SAS date values, Use DATA Step statements to export data to standard and comma delimited raw data files, Control which observations and variables in a SAS data set are processed and output
Unit-5 Managing Data using SAS
Investigate SAS data libraries using base SAS utility procedures, Sort observations in a SAS data set, conditionally execute SAS statements, Use assignment statements in the DATA step, Modify variable attributes using options and statements in the DATA step, Accumulate sub-totals and totals using DATA step statements, Process data using DO LOOPS, Process data using SAS arrays
Unit -6 Advance SAS
Demonstrate advanced data set processing techniques such as updating master data sets, transposing data, combining/merging data, sampling data, using generation data sets, integrity constraints and audit trails Reduce the space required to store SAS data sets and numeric variables within SAS data sets by using compression techniques, length statements or DATA step views, Use PROC DATASETS to demonstrate advanced programming skills (e.g. renaming columns, displaying metadata, creating indexes, creating integrity constraints, creating audit trails)
Unit -7 Data Analytics in real-time
Scope and Future of Data Analytics, Banking and Securities Case study(NSE XLS and Predictions),Media and Entertainment Case study(TRP Analysis),Healthcare Providers Case study, Education and Data analytics, Manufacturing and Natural Resources Case Study

Reference Books
1. Mining of Massive Datasets By: Jure Leskovec, Anand Rajaraman, Jeff Ullman Publisher: Cambridge University Press
2.Excel: Formulas & Functions Book by Robert Dinwiddie Publisher: DK Publishing
3. SAS Clinical Programming: by Y. Lakshmi Prasad Publisher: Notion Press

IM-817 HB
HR Based Business Process and Transformation

Course Outcomes:
CO1: Create fit for purpose people functions by aligning HR and business strategy.
CO2: Understand the appropriate structure, capabilities, and systems in place that enables HR scholars to deliver real value to the business outside.
CO3: Successfully build HR capabilities that drive scalable and sustainable business value.

Course Contents:

1. **Innovation and Creativity:** Theories of innovation and creativity, managing people side of motivation, resistance to motivation, the creative process, releasing creativity, creative techniques of problem solving, the creative environment, creative organization, creativity training, introduction to learning organizations, Architecture of Learning Organization.
2. **Team Building:** Redesigning Work, Developing Teams, Building, Teams Structure and Skills, managing Disruption and Conflict, Improving work process and work flow, Appraising Team Performance, Leading High Performance Teams.
3. **Total Quality Management:** History and Philosophy of TQM, TQ as a System, Step by step TQM Implementation Process, ISO 900 and ISO 4000 process Implementation and obtaining Certification, Malcom Baldrige Award criteria, Demings Award, Rajiv Gandhi Quality Award.
4. **Basic HR issues in TQM:** Leadership Vision and Continuous Process of improvement, Kaizan, performance appraisal and TQM, People Capability Maturity Model (PCMM), Quality HR Practices.
5. **Business Process Re-Engineering:** Basic Concepts, Process Mapping, Work flow Mapping, Effectively Applying BPR in the Organizations.
6. **Management Of Change:** Theories of Change, Leading Change, Resistance to Change, Change Process, Visioning, HRM and Culture.
7. **Knowledge Management:** Meaning, Application, Creating Knowledge Organization, Role of Chief Knowledge Officer in Organization.

Text Readings:

1. Pradip N. Khandwala, Fourth Eye: "Excellence Through Creativity", Wheeler Publishing, New Delhi
2. Knoues B Stephen "Human Resource Management Perspective on TQM: Concepts and Practices, Milwaukee Kilsconsin, ASQC Quality Press latest edition, 1996.
3. Robert A. Pato an James Mccalman, "Change Management: A Guide to Effective Implementaton" New Delhi, Response Books, 2000.

IM- 815 HB

INTERNATIONAL HRM

COURSE OUTCOMES:

CO1: Knowledge and competencies needed for these professionals to deal effectively with the challenges of an ageing workforce.
CO2: Disseminate best practice methodologies for Human Resource Management.
CO3: This course provides an understanding of the role of Human Resourses management (HRM) in international contexts.

COURSE CONTENTS:

UNIT 1: Foundation and challenges of international HRM, difference between domestic HRM and IHRM

UNIT 2: Global view I HRM: Issues in recruitment and Selection Training and development in context of globalization Labor relation in Global context HRM in cross culture context

UNIT 3: Globalization and quality management Competition in international environment.

UNIT 4: Performance management and Compensation: Level of Knowledge: application knowledge

Performance management: factors associated with individual performance and appraisal –criteria used for performance appraisal of international employees-appraisal of host country nationals. Compensation: Objectives of international compensation-approaches of international compensation.

UNIT 5: Expatriation and Repatriation Level of knowledge: Understanding and applying Expat failure- Causes for failure, Repatriation process.

UNIT 6: Strategic approach to HRM Integrating HR strategies with corporate and functional strategies

International HR in strategic decisions International HR strategies

TEXT READINGS

1. Internationalization the people dimension – by Stephen J Porter
2. Managing HR in the 21st century – by E.E.Koffek , R N Block
3. International Management Behavior- by Lane DI stfalo and Maznevski
4. Managing Human Resources: Through Strategic Partnerships (Managing Human Resources Through Strategic Partnerships) -by Susan E. Jackson, Randall S. Schuler
5. Managing Human Resources By Wayne F. Cascio
6. Human Resource Management: A Strategic Approach- by William P. Anthony, , K. Michelle Kacmar, Pamela L. Perrewe.

Semester IX

	Subject Code	Proposed For 2K18 onwards Sem. IX	Credit
Core	IM – 901C	Strategic Management	**4**
	IM – 903C	Business Ethics and Corporate governance	**4**
MKT A (DUAL)	IM – 919M	Mktg. Decisions	**4**
	IM – 920MA	Marketing research	**4**
MKT B (SINGLE)	IM – 919MB	Direct Marketing and Event Mgt.	**4**
	IM – 921MB	**CRM**	**4**
FIN A (DUAL)	IM – 919FA	Multinational Financial Management	**4**
	IM – 920FA	Investment Mgt.	**4**
FIN B (SINGLE)	**IM – 921FB**	**Financial Research**	**4**
	IM – 920FB	Corporate Restructuring	**4**
HR A (DUAL)	IM – 919HA	HR for business excellence	**4**
	IM – 920HA	Latest Trends in HRM	**4**
HR B (SINGLE)	IM – 919HB	HR Skills	**4**
	IM – 920HB	Advanced Industrial Psychology	**4**

IM-901C

STRATEGIC MANAGEMENT (CORE)

COURSE OUTCOMES

CO1: Describe the practical and integrative model of strategic management process that defines basic activities in strategic management.

CO2: Demonstrate the knowledge and abilities in formulating strategies and strategic plans.

CO3: Analyze the competitive situation and strategic dilemma in dealing with dynamic global business environment in terms of rapidly changing market trends and technological advancement.

CO4: Evaluate challenges faced by managers in implementing and evaluating strategies based on the nature of business, industry, and cultural differences.

Course Contents

1. Meaning, Need and Process of Strategic Management; Business Policy, Corporate Planning and Strategic Management; Single and Multiple SBU organisations; Strategic Decision–Making Processes – Rational–Analytical, Intuitive-Emotional, Political – Behavioural; Universality of Strategic Management; Strategists at Corporate Level and at SBU Level; Interpersonal, Informational and Decision Roles of a Manager.
2. Mission, Business Definition and Objectives; Need, Formulation and changes in these three; Hierarchy of objectives, Specificity of Mission and Objectives.
3. SWOT Analysis :General, Industry and International Environmental Factors; Analysis of Environment, Diagnosis of Environment – factors influencing it; Environmental Threat and Opportunity Profile (ETOP); Internal Strengths and Weaknesses; Factors affecting these; Techniques of Internal Analysis; Diagnosis of Strengths and Weaknesses; Strategic Advantage Profile (SAP).
4. Strategy Alternatives: Grand Strategies and their sub strategies; Stability, Expansion, Retrenchment and Combination; Internal and External Alternatives; Related and Unrelated Alternatives, Horizontal and Vertical Alternatives; Active and Passive Alternatives; International Strategy Variations.
5. Strategy Choice Making: Narrowing the choices; Managerial Choice Factors, Choice Processes – Strategic Gap Analysis, ETOP-SAP Matching, BCG Product – Portfolio Matrix, G.E. Nine Cell Planning Grid; Contingency Strategies; Prescriptions for choice of Business Strategy; Choosing International Strategies.
6. Strategy Implementation: Implementation Process; Resource Allocation; Organizational Implementation; Plan and Policy Implementation; Leadership Implementation; Implementing Strategy in International Setting.
7. Strategy Evaluations and Control : Control and Evaluation Process; Motivation to Evaluate; Criteria for Evaluation; Measuring and Feedback; Evaluation and Corrective Action.

Suggested Books

1. Lawrence R. Jauch and William F. Glueck, "Business Policy and Strategic Management", McGraw Hill Book Co., New York.
2. "Strategic Management", Dreamtech Press, New Delhi
3. Strategic Management by VSP Rao and Harikrishna
4. Strategic Management by Upendra Kochru.
5. Daniel J. McCarthy, Robert J. Minichiello, and Joseph R. Curran, "Business Policy and Strategy" Richard D. Irwin, AITBS, New Delhi, 1988

IM-903C
Business Ethics and Corporate Governance (Core)

CO1: Understand business ethics and problems related to unethical practices in management.
CO2: Understand the applicability of ethics in various departs of an organisation.
CO3: Understand the code of ethics on the basis of effective ethical program development techniques.
CO4: Learn the art of ethical decision making and thereby developing an outlook towards morality and value based living.
CO5: Understand the mechanism of corporate governance on the basis of worldwide practices and frameworks.
CO6: Understand the environment in which business operates and impact and role of culture and technology in business.

Course contents :

UNIT 1: Introduction to Business Ethics,

Definition & nature, Characteristics of ethical problems in management, Ethical theories; Causes of unethical behaviour; Work ethic, Values , Norms, Beliefs and Standards

UNIT 2 : The Institutionalization of Business Ethics

Ethics and organisation, Ethics in practice- in functional areas (Like HR, Marketing, Finance), Intellectual Property rights, Code of ethics; Competitiveness, organizational size, profitability and ethics, Developing an Effective Ethics Program

UNIT 3 : Ethical Decision-Making and Ethical Leadership

Models of Decision making, Individual Factors: Moral Philosophies and Values, Indianism and Indian Value Systems, Servant Leadership

UNIT 4 : Corporate Governance:

Evolution, Principles, Main Drivers, Theories and Models, Global Practices on Corporate Governance in the World and their impact on corporate world

UNIT 5 : Business Environment

Political and Legal Environment, Cultural Environment, Managing Across Cultures, Negotiating Across Cultures, Economic Environment, Technological Environment, Broader Ethical issues in society

UNIT 6 :Corporate Social Responsibility

Stakeholder Management and Social Responsibility, Big Business and society Business, Ecological/Environmental issues in the Indian context, Understanding CSR, CSR in India, World Economic Growth and the Evolution of CSR.

UINIT 7: Sustainable Businesses :

Concept of Sustainable Development, Gandhian Thought on Sustainable development, dimensions of sustainable development – Environmental, Economic and Social, Indian & Global Perspective on Sustainable Development

Books and Readings:

- Business Ethics, CSV Murthy, Himalaya Publishing
- Business Ethics and Corporate Governance, ICFAI publication
- Business and its Environment Davis, Kaith and Blostorm, Robert-.
- Corporate Social Responsibility Beeslory, Michel and Evens –.
- Ethics in Management by S.A. Sherlekar, Himalaya Publishing House

IM - 919 MA
MARKETING DECISIONS

COURSE OBJECTIVE:

This course is aimed at integrating the knowledge, which the student has acquired through their core and specialization courses in the marketing area. It will provide an opportunity to analyze business situation and apply suitable concept and techniques for taking appropriate decisions.

COURSE CONTENT:

This is fully based on case study. Cases related to marketing research consumer behavior, segmentation, positioning, marketing mix decision, marketing strategy and implementation will be discussed in the class. Some management games will also be used for this purpose.

TEXT BOOKS:

1. **Strategic marketing problems: cases and comments by Roger A. Kerin, Robert A. Peterson……. Prentice Hall.**

**** All basic and specialization area and books in marketing need to be referred****

IM 920 MA

MARKETING RESEARCH

COURSE OUTCOMES:

CO1: Be able to assess market research for quality and relevance.
CO2: Critically analyse market research methods and understand their strengths and weaknesses.
CO3: Demonstrate an understanding of the ethical framework that market research needs to operate within.
CO4: Understand how marketing research fits into the broader strategic planning process, with reference to existing theories, concepts and models from within the program.
CO5: Identify and describe the principal steps involved in the marketing research process.
CO6: Recognize the differences in scale types, and describe the principles of data transformation.

COURSE CONTENTS:

1. **Scope and applications –** Marketing Research; Scope, advantages, objectives, Process of marketing research, Difference between marketing and market research
2. **Research Design:** Exploratory, Descriptive, Causal studies.
3. **Sampling in Marketing research:** Sampling design process, sampling techniques; Probability and Non-Probability sampling
4. **Instrument design, Measurement and Scaling** –structured and non-structured.Measurement and Scaling: NOIR, Itemized rating scales; Likert scale, Semantic differential scale, Stapel scale.
5. **Data preparation process and data analysis :** Editing, coding, transcribing, data cleaning.Data analysis **–** Univariate techniques, Multivariate techniques, Measures of central tendency, measures of variability, correlation, regression, Frequency distribution, cross-tabulation, ANOVA
6. **Advanced statistical techniques –** t-test, Z-test, factor analysis, Cluster Analysis, Conjoint analysis, Discriminant analysis, Brief understanding of popular software like SPSS,Structural Equation Modeling**:** basic concept, Statistics associated with SEM, Foundations of SEM, Conducting SEM
7. **Data interpretation; Report writing.**

TEXT BOOKS

1. Marketing Research – Boyd, Westfall
2. Marketing Research - G. C. Beri
3. Marketing Research – Luck, Rubin

RECOMMENDED READING

1. Marketing Research – Green, Tull, Albaum
2. Marketing Research in Marketing Environment – Dillon, Firtle
3. Research Methodology – D. H. McBurney
4. Special Supplements – Brand Equity (Economic Times), Catalyst (Business Line)
   Statistics for Management – Levin, Rubin

IM-919 MB

Direct Marketing and Event Management

Course objective:
To demonstrate how direct marketing and event management have evolved with technology and have become central to modern marketing practices. It will also help students to develop abilities and skills required for the strategy formulation and implementation of direct marketing and event management under the ever changing marketing scenario.

Course Contents:
Unit 1: Nature and Concept of DM: Basic concepts and characteristics of direct marketing, Research in Direct Marketing
Unit 2: Direct Marketing plan and strategic planning, Direct Marketing Offer (4P's)
Unit 3: Direct mailing, Direct response print ads, Catalog marketing, B2B direct marketing, Direct marketing for retailers, Broadcast direct marketing, Telemarketing.
Unit 4: Concepts of Events: Event management, Event as a marketing tool; Key elements of events; Concept of product, price and promotion in events.
Unit 5: Activities in event management (Pre, during and Post-Event)
Unit 6: Strategic market planning, Planning and Evaluation. Evaluation – Event performance.
Unit 7: Event organization assignment

Text Readings:

- Creative strategy in direct marketing: Susan K. Jones
- Direct Marketing – Concepts and Cases: Mukesh Chaturvedi
- Event Marketing and Management: Sanjay Gaur and Sanjay Saggere

Suggested Readings:

- Direct Marketing: Bob Stone
- HBRs and other related journals.

IM 921 MB
CUSTOMER RELATIONSHIP MANAGEMENT

Course Objectives : The subject develops a customer focused attitude and prepares students for careers in the areas of customer relationship management, customer relationships – customer relationship philosophies, relationship process, models on providing value and satisfaction etc. It stresses the importance of understanding, in an empathic way, the needs, expectations and aspirations of customers as a basis for building a relationship, which adds value to the customer while being at least potentially profitable to the services supplier.

Course Contents:

1. **The Concept of Customer Relationship Management:** Evolution of CRM – Paradigm shift in marketing, Definition and Concept of CRM, Benefits of CRM- Role of People as Relationship Marketeers.
2. **Building Customer Relationships** - Creating a customer profile, Recency, Frequency, Monetary, Customer Lifetime Value assessment, Relationship Building as a Process - Customer Acquisition , Customer Retention - Importance, Customer Attrition – Reasons, Grievance handling, Customer Defection – Causes and strategies to prevent defection.
3. **Managing Customer Relationships** – Building relationships by adding value to customers, Managing Customer Contact strategies, Dealing with Difficult situations.
4. **Developing CRM Strategy** – Role of CRM in business strategy, Managing Customer communications
5. **Measuring Performance of CRM** - Setting standards, Customer Satisfaction, and Portfolio Profitability.
6. **e-CRM** – Importance of e-CRM, Merging CRM and the Internet.
7. **Application of CRM** in different sectors.

References:

1. Customer Relationship Management
Emerging Concepts, Tools and Applications - Sheth, Parvatiyar, Shainesh.
2. Handbook of Relationship Marketing – Sheth and Parvatiyar.
3. Customer Relationship Management
A step-by-step approach – H Peeru Mohamed and A Sagadevan

IM 919 FA
Multinational Financial Management

Course Outcomes:

CO1: Understand financial decision making in the international global market
CO2: Prepare the students to identify the different financing mechanisms available in the global market.
CO3: Practical application of relevant modern finance techniques and concepts in global settings.
CO4: Understand Multinational Corporate Financial System
CO5: Understand financing and investment decisions of Multinational Corporations.
CO6: Understand working capital financing decisions of Multinational Corporations
CO7: Understand Special Issues concerning Multinational Corporations such as Transfer Pricing, Transnational Alliances, etc.

Unit 1: Working Capital for Multinationals:
Financing Foreign Trade; Current Asset Management Short Term Financing; Multinational Financial System; International Financing: Equity Financing, Bond Financing, Direct Loans, Bank Financing, Capital Structure.

Unit 2: Finance for International Operations:
Equity – based financing in international financing; Bond financing in international financing; Bank financing direct loan; Sources of Funds for Subsidiaries.

Unit 3: Capital Budgeting for Multinational Corporations:
Project Appraisal: Introduction, Review of the NPV Approach, Adjusted Present Value (APV) Framework.

Unit 4: Appraisal in the International Context, Capital Structure and Cost of Capital, Political Risk Analysis, International Joint Ventures and Transfer Pricing, Country Risk Analysis.

Unit 5: Managing the Multinational Financial System:
Multinational Corporate Financial System, Market Imperfections that Enhance the Value of Internal Financial Transactions, Intercompany Fund-flow Mechanisms: Costs and Benefits,.

Unit 6: Growth of Multinationals:
Empirical Evidence on the Growth of M N C s

Unit 7: Concerns of Multinationals:
Special Issues Facing Multinational Corporations: Transfer Pricing; the Measurement of Transfer Prices, Strategic Considerations in Transfer Pricing, Practical Considerations in Transfer Pricing; Transnational Alliances

Recommended Books:
International Financial Management, 9th Edition, Jeff Madura, Thomson South-Western.
Multinational Financial Management, 10th Edition, Alan C. *Shapiro, Wiley Publications.*
International Financial Management, P.G.Apte, Tata McGraw Hill.
Multinational Financial Management, Madhu Vij, Excel Publications.

IM 920 FA
INVESTMENT MANAGEMENT

Course Outcomes:

C01: Analyze and evaluate financial markets, how securities are traded, mutual funds, investment companies, and investor behavior.
C02: Construct optimal portfolios and illustrate the theory and empirical applications of asset-pricing models.
C03: Explain macro and industry analysis, equity valuation, financial statement analysis and technical analysis.
C04: Analyze bond prices and yields and fixed-income portfolios.
C05. Explain what options and futures are and their use as hedging instruments.
C06. Characterize the implications of the market efficiency evidence on active portfolio management
C07: Develop the skills to set up own financial consultancy.

Course Contents

1. Review of Capital Market Theories and Portfolio Concepts.
2. Investment Strategies:
    a. Active Portfolio Management vs Passive Portfolio Management
    b. Arbitrage as a tool of investment,
    c. Equity portfolio vs Fixed income portfolio.
3. Risk management: Asset Allocation- policies and procedure, Diversification in various markets, various asset classes, dynamic asset allocation, hedging
4. Implementation: Choice of instrument or vehicle, trade execution, short selling, management of cost and taxes, monitoring and governance.
5. Management of Investment Institutions:
    a. Individual vs institutional clients (pension funds and endowments etc),
    b. Vehicles of investment – mutual funds, close ended funds, hedge funds
    c. Markets for investment – "upstairs" block markets, organized stock exchanges, futures markets, intermediaries etc.
6. Hedge Funds and other investment alternatives

Text Readings

1. Fabozzi Frank J, "**Portfolio and Investment management"**.
2. Bhalla V K, "**Investment management"** S. Chand And Sons
3. Donald E. Fisher and Ronald J. Jordan, "**Security Analysis And Portfolio Management**", PHI Publication, New Delhi, 1998

Suggested Readings

1. Edwin J. Elton and Martin J. Gruber, "**Modern Portfolio Theory And Investment**", John Wiley and Sons, Singapore, 1996.
2. Bodie, Kane, marcus, Mohanty, "**Investments",** Tata Mcgraw Hills company, 2006
3. Sharpe William ,"**Investment Management"**
4. Shanbag A N, "**In the Wonderland of Investment"**

IM- 921 FB
FINANCIAL RESEARCH

Course Outcomes:

CO1: Apply the concept of research to solve problem related to behavioural finance, time series analysis corporate finance, stock market and other upcoming issues.
CO2: Select and define appropriate financial research problem and parameters.
CO3: understand financial modeling and its application in real time world.
CO4: Understand project appraisal valuation using financial modeling.

COURSE CONTENT:-

1) **Introduction: -** Introduction to financial research, Basic requisites for the financial research. Areas of research in the field of finance: Researches in Behavioural Finance, Corporate Finance, Stock Markets, Other upcoming fields.
2) **Introduction to other Softwares for Analysis** - SPSS**: -** Getting started with SPSS. Tools used in the field of finance, **EASYREG: -** Getting started with EASYREG. Tools used in the field of finance. **EVIEWS: -** Getting started with EVIEWS. Tools used in the field of finance.
3) **Basics of Financial modeling-** Forecasting on any time series data by using regression and other statistical tools. An overview about econometric tools for time series analysis. An overview about various softwares for financial modelling.
4) **Tools & Models:** Distributed lag models, Stationarity of Financial Time series, Multicollinearilty, Cointegration test, Volatility models.
5) **Financial Modelling in Project Appraisal & Valuation -** Determining Project Viability, Risk Analysis in Project Appraisal, Simulation in Project Appraisal, Valuation -Determination of Value Drivers, DCF Valuation, Risk Analysis in Valuation
6) **Financial Modelling in Portfolio Theory** -Determining Efficient Portfolio, Creating Dynamic Portfolios, Portfolio Insurance, Fixed Income Portfolio Management using software
7) **Writing Reports:-** Equity Analysis Report, Project Analysis Report, Financial Research Report

Recommended Books:-

1. Damodar Gujrati:- Basic Econometrics, 4th edition. Tata Mcgraw hills.
2. MODULES of EVIEWS, EASYREG ,SPSS
3. Prasna Chandra.:- Financial Management
4. V.K. Bhalla, Investment management, S.Chand And Sons

IM-920 FB
Corporate Restructuring

Course Outcomes:

CO1: Understand basic concepts of corporate restructuring, its modes and Identify latest and emerging modes in corporate restructuring.
CO2: Select and define appropriate strategic planning and alternative approaches to competitive strategy.
CO3: Meaning of mergers and its legal approach according to Companies Act 2013
CO4: Financial considerations in Merger
CO5: Various other modes of Corporate Restructuring
CO6: Modes of Capital restructuring and its practical problems and buy back of shares.
CO7: Post merger impact of mergers and practical aspects of leverage and its types.
CO8: International mergers and various case studies

Unit 1: Introduction

Meaning of Corporate Restructuring, Need & Scope, Historical Background, various modes of Corporate Restructuring, emerging trends in Corporate Restructuring

Unit 2: Basics of Corporate Restructuring strategies

Basic steps in strategic planning, various approaches to formulating strategies, and evaluation of alternatives approaches, formulating a Competitive Strategy

Unit 3: Mergers & Corporate Restructuring

Major types of merger, Theories of Merger, A framework for analysis of Merger, Financing and considerations in merger

Unit 4: Others Modes of Corporate Restructuring

Sell offs & Divestitures; Definition & examples , Spin offs, Equity curve outs, Voluntary Liquidations & Take overs , joint venture , ESOPs, MLPs etc.

Unit 5: Funding & Financial Restructuring

Financial Alternatives, Merits & Demerits, MBOs & LBOs, Reduction & reorganization of Share capital buy-back of shares

Unit 6: Deal Structuring

Financial & Tax Consideration, Methods of payments & leverages, the effect of mode of payment, Post restructuring & Financial Implications.

Unit 7: International Merger & Restructuring

Case Studies

Book: Merger, Restructuring & Corporate control- Weston, Chung & Hoara, Person Publication

IM- 919 HA
HR FOR BUSINESS EXCELLENCE

Course Outcomes:

CO1: Acquainted with the importance of HR role in business excellence and to offer insights into various modes of business excellence.

CO2: Steps in Organizational Structure, benefits of a good organization, Determinants of Organization structure.

Course Content

1.Theories Of Innovation, Innovation V/S Kaizem, Team & Its Types, Team Building & Its Process, Resistance To Team Building, Performance Evaluation For Teams, Teams V/S Groups, Small Group Activities (SGA) Like Quality And Kaizem Group

2.Total Quality Management: History & Philosophy Of TQM, Total Quality As A System, Step By Step TQM Implementation Process, ISO 9000 & ISO 14000 Process Implementation & Obtaining Certification, Malcon Bridge Award Criteria, Demings Award, Rajeev Gandhi National Quality Award

3. Problem Solving Tools & Business Process Re-Engineering (BPR): 7 QC Tools, BPR Meaning, Concept, Methodology & Its Implementation Of HR Intervention In BPR

4. TQM in Service & Manufacturing Industries: Understanding the Different Processes & Designing TQM Models For These Industries

5. Turnaround Mgmt. : Meaning, Types, Methodology & Implementation, Barriers To Turnaround & Methods Of Minimizing Them.

6. Change Mgmt.: Theories Of Change, Leading To Change, Resistance To Change, Change Proneness, Visioning, HRM & Culture Of Change

Text Readings:

1. Pradip N. Khandwala, "Turnaround Excellence Theory & Cases", Response Books, New Delhi,2001
2. Lt. Gen. Ahluwalia J.S (Ed.), "TQM: The Transforming Role Of Quality In A Turbulent World. ", New Delhi, Tata Mcgraw Hill, 1997
3. Madhukar Shukla, "Competing Through Knowledge", Response Books, New Delhi,1999
4. Knouse B Stephen & Milwankee Klisconsin, "Human Resource Management Perspectives On TQM: Concepts & Practices "

IM-920 HA
Latest Trends in Human Resource Management

Course Outcomes:

CO1: Identify each of the major HRM functions and processes of strategic HRM planning, job analysis and design, recruitment, selection, training and development, compensation and benefits, and performance appraisal.

CO2: Define strategic HR planning and the HRM process to the organization's strategic management and decision-making process.

CO3: Recall the wide range of sources for attracting and recruiting talent and appropriate practices for job placement.

CO 4: Recognize emerging trends, opportunities and challenges in performance appraisal.

CO 5: List training and development processes as well as future trends for HRM globalization.

Unit I Learning Organization

Learning Organization, Meaning, Characteristics, Single-loop learning V/S Double loop learning. Creating a learning organization.

Unit II Managing Knowledge Workers

Knowledge management meaning, challenges and trends, E- Learning: Challenges and issues.

Unit III: Psychological Contract

Psychological contract. Meaning, Importance, Types and managing the psychological contract.

Unit IV Skill Inventory

Skill Inventories, Competency mapping, Recent Trends in training and development & performance appraisal.

Unit V Human Resource Accounting

Human Resource Accounting and Audit: Meaning process and importance.

Unit VI: Human Resource Information System

Human Resource Information System: Meaning and Process

Unit VII Workforce Diversity

Managing work force diversity – Challenges and Issues

Reference Books

- Mark, Easterby., Loius, Arajo. (2008). Organizational learning and the learning organization. Sage Publication
- John, C. Maxwell., (2006). The 360 leader. Pearson Publication.
- Gupta, R. K. (2003). Human resource accounting. Anmol Publications.
- Dr. Michael, J. K., & Mohan, T. (2007). Human resources information system. Sage Publication.
- Chaudhari, S. (2004). Effective psychological contract: implications for HR practices. ICFAI University Publication.
- Amar, A.D. (2002). Managing knowledge workers: Unleashing innovation and productivity. Quorum books.
- Pushkala, P. (2002). Managing the organizational melting pot: dilemmas of workplace diversity, Sage Publication.

IM 919 HB
HUMAN RESOURCE SKILLS

Course outcomes

CO1: Contribute to the development, implementation, and evaluation of employee recruitment, selection, and retention plans and processes.
CO2: Develop, implement, and evaluate employee orientation, training, and development programs.
CO3: Research and support the development and communication of the organization's plan.
CO4: Research and analyze information needs and apply current and emerging information technologies to support the human resources function.
CO5: Develop, implement, and evaluate organizational development strategies aimed at promoting organizational effectiveness.
CO6: Present and evaluate communication messages and processes related to the human resources function of the organization.
CO7: Manage own professional development and provide leadership to others in the achievement of ongoing competence in human resources professional practice.
CO8: Facilitate and communicate the human resources component of the organization's business plan.

Course Contents :

UNIT-I :

People centric partnership IT - Mistaking the Message, Human Resource Elusive Search for Status and Respect - Measuring Human Resource Effectiveness, Macro Human Resource Issues and Trends in the knowledge of the Economy, Characteristics of Knowledge Workers.

UNIT-II :

Learning - Approaches to the Learning, Barriers to Learning, Managing Failure and Success - Bench marking against best practices adopt or reject. Mentoring, Sharing Knowledge, Attracting Talent - From left brain to right call for competencies, Retaining Talent.

UNIT-III :

Counseling - Definition - Historical background and origins of Counseling -Dimensions of Counseling - Basics of Counseling - Common Criticisms - Orientation Models - Problem focused models - Work oriented models - Welfare based models -Organization change models - Externally based models - internally based models.

UNIT-IV:

Multiple Roles of Counselors - Counseling values vs. Business values to training for Counselors –

Ethical issues in Counseling stress and counseling - Impact of organizations - Systematic approaches – Organization culture different culture and Counseling.

UNIT-V:

Preparation of Counseling - Assessing counseling - contracting for counseling - Termination counseling – Preparation of employee - Assessment of employee - Contracting / referring - Enjoying in counseling and termination counseling

UNIT-VI:

Performance Counseling - Objectives conditions for effective Counseling - Sequential Process of Performance Counseling - Counseling special types of employees - Training in ethical decision making - Making ethical decisions.

UNIT-VII:

Evaluation - Usefulness of evaluation - Record keeping evaluation - Formative and Summative evaluation – Different methods of counseling evaluation - Counseling for improving performance.

Reference Books:

1. Work place counselling., Micheal Carrol sage publications, 1999.

2. Introduction to counselling skills - texts and activities, recharge welson jones saga publications 2000.M.A. Human Resource Management: Syllabus (CBCS)44
3. Counselling and guidance - Narayana Rao, S. Tata McGraw Hill, 1992.
4. Personal Counselling J M Faster, Better Yourself Books Bandra, Bombay - 4000050
5. Readings in HRD - Dr T.V. Rao, Oxford & T.B.H. publishing co.Ltd.
6. Indian Case Studeis in Therapeutic - Counselling, Dr. B. J. Prasantham, Christian Counselling Center, Vellore 63 2001.

IM-920 HB
Advanced Industrial Psychology

Course outcomes

CO1: Understand the major areas of organizational and industrial psychology, including human resources; leadership development; employee training, motivation, and satisfaction; group dynamics, organizational climate; and team-building.

CO2: Increase understanding of underlying theories and their application in organizations.

CO3: Apply organizational theory to specific organizational situations.

CO4: Acquire skill in collaborative teamwork, time management, self-motivation, and project planning.

Unit – 1 Industrial Psychology – Definition, Principles, Practices, Problems and Techniques, Tools and Tactics. A Brief history of Industrial and organizational psychology. The Future of Ind. Psychology.

Unit -2 Working as an Industrial and organizational psychologist, Problems and Areas of Industrial and Organizational Psychology, Research Methods in Industrial Psychology. Requirements of Psychological research. Limitation of Industrial Psychology research, The experimental Method, Naturalistic observation Survey research

Unit -3 Scope & Development Of Advanced Industrial Psychology: Major problems of industrial psychologist's of Advanced Industrial Psychology. Economic, social and psychological foundation of Advanced Industrial Psychology.

Unit –4 Psychological Testing- Introduction of psychological Test, Characteristics of psychological Test, Types of Psychological Test, Tests of knowledge, skills and abilities and Limitations of Psychological Testing Programme

Unit -5 Development of Counselling Skill among HR Managers

- Introduction to the Important Schools of Counselling
- Psychoanalytic Foundations
- Transactional Analysis
- Johari Window
- Rational Emotive Therapy
- Person-Centred Approach to Counselling
- FIRO-B
- Essentials of Skills
- Nonverbal Clues

Unit -6 Emotional Intelligence : Concept, Framework, Process, techniques, applicability of EI in today's modern world.

Unit -7 .Creativity and Intelligence – creativity and intelligence, identification of the creative individual. Education for encouraging creativity.Cognitive development, Bruner and Piaget's work on cognitive development and theirapplication to class room situations, Spiritual Intelligence.

Unit -8 Developmental Social Psychology: Concept of Developmental Social Psychology. Two key concepts : Social and Socialization. Theoretical Background of Developmental Social Psychology. Cognitive Developmental Theory. Social learning theory. Evolutionary Theory. An Ecological theory of Human Development – Anthropological – Psychodynamic approaches.

Test to be used (Any 10)

S. K. Pal and K. S. Misra. Test of General Intelligence
(TGI–PM) English.
(This test measures general intelligence of college students through six sub tests — word

meaning, analogy, classification, number series, code transformation, syllogism.)

Anukool Hyde, Sanjyot Pethe and Upinder Dhar. Emotional Intelligence Scale
(EIS–HPD) English.

(It contains 34 items and measures emotional intelligence through 10 factors — self awareness, empathy,self motivation, emotional stability, managing relation, integrity, self development, value orientation, commitment and altruistic behaviour. It is standardized on executives)

Roquiya Zainuddin & Anjum Ahmed. Spiritual Intelligence Test
(SIT–ZA) English.

(This scale consists 78 items. Spiritual Intelligence Test has been classified into six dimensions : I. The inner self, II. The interself, III. Biostoria, IV. Life Perspectives, V. Spiritual Actualization, VI.
Value Orientation. It is standardized on Post Graduate Level age range 21 to 45 years.

N. K. Chadha and Usha Ganesan. Social Intelligence Scale
(SIS–CG) English.

(It measures social intelligence in eight areas-patience, cooperativeness, confidence level,
sensitivity, recognition of social environment, tactfulness, sense of humour, and memory. It
is meant for college students.)

M. Rajamanickam. Mental Imagery Questionnaire
(MIQ–R) English

(M.I.Q. is designed to assess the sensory experiences of the individuals. This Questionnaire
consists of six subtests referring to six areas of sensory experiences- (i) visual, (ii) auditory, (iii) gustatory, (iv) olfactory, (v) tactual, and (vi) bodily. Thus on the whole 15 x 6 = 90 items were
included in the Questionnaire. It can be used on school students and adult population.)

A. K. P. Sinha and L. N. K Sinha. Scientific Aptitude Test for College Students
(SATCS–SS) English.

(It contains 34 items and measures scientific aptitude of college going students through 7
areas — (i) experimental bent, (ii) detection of inconsistencies or illogical conclusion, (iii) ability to
arrive conclusions from the data provided, (iv) accuracy of interpretation, (v) ability to reason and
solve problems, (vi) caution and thoroughness and (vii) Accuracy of observation. Norms for selected
scientific, unselected scientific and non-scientific groups were prepared.)

Nirmala Gupta. Career Maturity Inventory
(CMI–G) English

(Attitude Scale and Competency Test. Its attitude scale contains 50 items and maps the various conative aspects — decisiveness, involvement, independence, orientation and compromise in career decision making. The competence test measures the cognitive variables in choosing an occupation. It contains five parts — self appraisal, occupational information, goal selection, planning,

problem solving. It is meant for adolescents studying from 8th to 12th grade and may be
used for college population.)

Manju Mehta. Vocational Attitude Maturity Scale
(VAMS–M) English.
(Based on Crites. It contains 20 items. It measures the vocational maturity of adolescents.)

Vivek Bhargava and Rajshree Bhargava. Career Preference Record
(CPR–BB) English.
(Measures career preference or choices in ten broad areas — Mass Media, Journalism and
Information Technology (MMJ), Artistic and Designing (AD), Science and Technology (ScT), Agriculture
and Horticulture (Ag.), Commercial and Management (CM), Medical Profession (M), Defence Services (D), Tourism and Hotel Management (TH), Law and Order (LO), Educational
Administration and Teaching (E). It is found highly reliable and valid standardized on 12th Class students.)

V. P. Sharma, Prabha Shukla and Kiran Shukla. Social
Competence Scale
(SCS–SSS) English.
(This scale consist 50 items. This scale is meant for school going children from 14+ years. On the basis of factor analysis, it measures social competence through five factors—pro-social attitude, social competition, social leadership, social tolerance and social maturity.)

Y. Singh and M. Bhargava. Emotional Maturity Scale
(EMS–SB) English.
(It contains 48 items under the five categories—emotional unstability, emotional regression, social
maladjustment, personality disintegration and lack of independence. Meant for adolescents
and adults.)

Judging Emotions By Photographs (JEP)
(1 Manual, Set of 10 Cards & 100 Scoring Sheet)

Upinder Dhar and Manisha Jain. Type A/B Behavioural Pattern
Scale
(TABBPS–DJ) English.
(This is a new scale, the necessity of mode-n-time. It identifies individuals with two types of
Personality Patterns—type A & B. There are 33 items in this scale, 17 are related to type A
whereas 16 are related to type B. On the basis of factor analysis six factors were identified in type
A pattern—tenseness, impatience, restlessness, achievement orientation, domineering and work aholic and five factors were identified in type B pattern—complacent, easy going, non-assertive, relaxed and patient. It is found to be satisfactorily reliable and valid and norms are available on 200 subjects of working population. For adults.)

Sanjay Vohra. Locus of Control Scale Indian Adaptation of Levensons Scale
(LCS–VS) English.
(This 24 Likert type Rating items scale measures locus of control in three dimensions, i.e., powerful

on others (P) chance control (C), and Individual Control (I) Meant for above 16 years.)
Ashok K. Kalia and Anita Deswal. General Well-Being
Scale
(GWBS–KADA) English.
(This scale consists 55 items in four dimensions : I. Physical Well-being, II. Emotional Wellbeing,
III. Social Well-being, IV. School Well-being. The scale was administered on 200 Adolescents–Male and Female.)
D. S. Sisodia and Pooja Choudhary. Psychological Well-Being
Scale
(PWBS–SDCP) English
(The scale consists 50 items in Five Area—I. Satisfaction, II. Efficiency, III. Sociability, IV. Mental
Health, Interpersonal Relation. This scale administered on any age group.)
R. K. Saraswat. Self Concept Questionnaire
(SCQ–S) English.
(This 48 items measures self-concept in six areas — physical, social, temperamental, educational, moral and intellectual of school going children. Age group 14 to 18
years.)
Upinder Dhar and Sanjyot Pethe. Leadership Effectiveness Scale
(LES–DP) English.
(It contains 41 items on five point rating. It is standrized on 395 executive. Its measure 11 area Interpersonal Skills.)
Upinder Dhar and Santosh Dhar. Team Effectiveness
Scale
(TES–DD) Hindi/English.
(It contains 20 items on five point response alternatives and it can be successfully used
for
screening out individuals who have low team orientation and are likely to have inhibiting influence
on the performance of a team. It has satisfactory reliability and validity. Three factors — dependability,
cooperation and sharing were identified on the basis of factor analysis. Norms are
available
on a sample of 350 executive in organizations.)
Upinder Dhar. Humour Effectiveness in Advertising
(HEA–DU) English.
(This test consists of 16 items. It is standardized on 230 marketers &
advertisers.)

BOOKS :

1. Duane P. Schultz (1994) ‘ Psychology & Work Today ’ , Prentice Hall, A Simon & Schoster Co. Upper Saddle River, New Jersy, 7458
2. E.J. McCormick & D.K. II gen (1987) ‘Industrial Psychology’ 6 Th ED. Prentice 3. Hall, New Delhi.
3.Anne Anastasi: Field of Industrial Psychology. Mc Graw Hill New York _ Blum M.L. & Naylor.J.C: Industrial Psychology. It’s theoretical and social foundations, Harper Int. Addition New York _
4.Blum M.L. & Naylor.J.C (1968): Industrial Psychology theoretical & social foundations, N.Y.Harper International edition

Semester X

IM 1001B

Industrial Project / Dissertation / Major Research Project

Course outcomes

CO1: Considerably more in-depth knowledge of the major subject/field of study, including deeper insight into current research and development work.

CO2: A capability to contribute to research and development work.

CO3: The capability to use a holistic view to critically, independently and creatively identify, formulate and deal with complex issues.

CO4: The capability to plan and use adequate methods to conduct qualified tasks in given frameworks.

CO5: The capability to critically and systematically integrate knowledge to understand and solve management issues .

CO6: The capability to clearly present and discuss the conclusions as well as the knowledge and arguments that form the basis for these findings in written form.

CO7: The capability to identify the issues that must be addressed within the framework of the specific thesis in order to take into consideration all relevant dimensions of sustainable development.

CO8: A consciousness of the ethical aspects of research and development work.

About MRP & it's Benefits

The Major Research Project is an opportunity offered to selected students where they conduct an indepth research on any topic of their choice. The MRP helps the students in number of ways :-

- **Nurtures academic insight -** The classroom teaching has certain limitations in terms of depth of subject that can be covered. MRP provides the student scope to explore the topic of choice in greater details. Exposure to an area of research undoubtedly also helps students explore career fields.

- **Enhances Observation skills** - The skill of research is not confined to the so-called academic research world. Research is an everyday practice of observation or data collection in order to make decisions or solve problems in an informed way. It happens in any organisation, and the demand for research skills are increasing.
- **Enhances inquisitiveness -** The ability to ask the right questions about a situation, to decide on the information required understanding the issue, to gather the information and analyse it in a rigorous way, and to develop sound recommendations is a much-needed skill for leaders. MRP helps in equipping MBAs with such skill, which helps them in decision making.

- **Out of class learning** - The capacity of leaders to keep learning and to discover new insights has increasingly become a sought-after skill. This demands formal research initiatives by practitioners and it also requires the ability to listen intelligently to the information signals emitted from everyday activities, from inside as well as outside the organisation – and to learn from these. MRP helps build up on these skill sets.

- **Accentuation of Integrated thinking** - Organizations need leaders who can rise above the paradigms of their own functional expertise; leaders who can see the bigger picture. MRP helps the students to put his learning in a proper perspective and gain a holistic view of all functional areas.

All these qualities do offer an indirect benefit to the student during campus recruitment

Mentoring
Each of the student is assigned a research supervisor from the faculty members on the basis of topic selected by the student. The student gets an opportunity to interact with him/her regularly on a one to one basis.

Best Project Award
The best project is selected from each functional area , i.e. Finance, Marketing and HR. The selected project is awarded a certificate during the passing out ceremony.

DEVI AHILYA VISHWAVIDYALAYA, INDORE

(Formerly University of Indore) , NAAC "A" Grade

State University of Madhya Pradesh, India

International Institute of Professional Studies

I I P S

DAVV

International Institute of Professional Studies

Syllabus
Of
Master of Business Administration (Tourism Administration) (5YDC) Integrated Programme

Academic Session : 2018-23

THE DIRECTOR DESK

Dear Scholar,

Welcome to one of the most prestigious, academic institution in central India offering professional education in Management, Computer Science and Commerce Streams. It has state of art infrastructure, pool of multi discipline faculty and devoted staff that creates a conducive environment for academic excellence and holistic development of yours, paving the way for your bright career prospects. Team IIPS looks forward to contribute towards your successful future life.

Team IIPS-MANAGEMENT

Dr. Anand K. Sapre, Professor, Director Ph D,MBA	**Dr. B.K. Tripathi, Professor** Ph.D (Mgt), MBA(HR), Ph.D (Chem), M.Sc (Chem)	**Dr. Yamini Karmarkar, Reader,** Ph D, FDP-IIMA, MMS
Dr. Geeta Sharma, Reader **Ph D , MBA (Finance), PGDPM&IR**	**Dr. GeetaNema, Reader** Ph D , MBA	**Dr. Jyoti Sharma, Reader** Ph.D., MBA (HR), M.A.(Psy), PGDCABM
CS. Dr. Manish Sitlani, Reader Ph D , ACS, MBA, M Com , LLB (Hons),UGC NET	**Dr. Preeti Singh, Reader** Ph.D.,MBA, B.Ed(DE)	**Dr. Suresh C. Patidar, Reader,** Ph D, MBA, M.Com, CS Inter, UGCNET, LLB(Hons)
Dr. Ravindra Yadav, Sr Lecturer Ph D , FDP-IIMA,MBA, DEE	**Dr. Manminder S. Saluja, Sr Lecturer** Ph D (Economics), M Phil, MA	**Dr. Anshu Bhati, Sr Lecturer** PhD, MBA(APR)
Dr. Pooja Jain, Sr Lecturer PhD, MBA(APR)	**Dr. Sujata Parwani, Sr Lecturer** Ph.D. (Economics) , M.A., M.Phil	**Dr. Kapil Jain, Sr. Lecturer** PhD(Mgt), MBA(Fin), M Phil., M Com.
Dr Surendra Malviya, Lecturer Ph D, MBA (E Com)	**Dr Muskan Karamchandani, Lecturer,** PhD, MBA (MS)	**Dr. Gaurav Purohit, Lecturer** Ph D , MBA (Tourism)
Dr. Nirmala Sawan, Lecturer M Sc, Ph D (Statistics)	**Dr. Shilpa Bagdare, Lecturer** PhD, MBA(Mktg)	**Dr.Navneet Kaur Bhatia,Lecturer** Ph D, MBA (Finance)
Dr. Prerna Kumar, Lecturer, PhD, MBA(Mktg)	**Mr. Naresh Dembla, Lecturer** ME (Comp Sc Engg), MBA, BE	**Dr Shikha Pandey, Lecturer** Ph D, MBA(Tourism)
Dr. Jyoti Jain, Lecturer Ph.D., MBA, MA	**Dr. Neha Chouhan, Lecturer** PhD, MBA	**Mr Ravi Bunkar, Lecturer** MBA (Mktg)
Ms. Monalisa Khatre, Lecturer MBA (Mktg)		

MrYogendra Singh Bawal, Network Administrator Incharge, Administrative Officer M Sc(CS), M Sc. (Elex & Comm.), CCNA	**Dr. Gaurav Purohit,** Incharge Placement officer (Tourism) Ph D , MBA (Tourism)
Dr. Kapil Jain, Ph.D.(Mgt),MBA(Fin), M Phil, M Com. Program Officer, National Service Scheme (NSS) Coordinator, Red Ribbon Club, MPSACS Warden, JN Boy's Hostel	**Dr. Sujata Parwani**, Ph.D. (Economics), M.A., M.Phil, Program Officer, National Service Scheme (NSS)

DAVV at a Glance

There are twenty seven teaching departments offering undergraduate, post-graduate and research programs in sixteen Faculties. It is amongst the first few Universities in the country to introduce innovative and integrated courses in the area of science, engineering, technology, management, law and media. The university has 270 affiliated colleges in addition to University teaching departments and centers. The University provides and nurtures research environment for promoting high quality original research. It offers Ph.D. and M. Phil. Programs in all the subjects**.**

The Hon'ble Governor of the State is the Chancellor of the University. The University functions as per Act, Statutes, Ordinances and Regulations. The Registrar, Examination Controller and Finance Controller of the University assist the Vice Chancellor in administrative, examination and financial matters. The University has duly constituted bodies - Executive Council, Academic Council, Boards of Studies, Finance and other committees for decisions on major academic, administrative and financial matters.

The University is prepared to embrace future challenges, explore new horizons and keep moving ahead on the path of excellence, innovation and enlightenment.

About IIPS

International Institute of Professional Studies (IIPS), a pioneer institute under Devi AhilyaVishwavidyalaya DAVV was established in 1991 to provide a new dimension to professional education. It has emerged as one of the best management schools of Central India. The Institute is located in the sprawling Takshashila campus of the University surrounded by lush green environment. The Institute offers following courses

1. Master of Business Administration (Management Science) (2YDC)
2. Master of Business Administration (Management Science) (5YDC) Integrated Programme
3. Master of Business Administration (Advertisement and Public Relations) (2YDC)
4. Master of Business Administration (Tourism Administration) (5YDC) Integrated programme
5. Bachelor of Commerce (Hons.) (3YDC)
6. Master of Business Administration (Entrepreneurship) (2YDC)
7. Master of Business Administration (Tourism Administration) (2YDC)
8. Master of Computer Application (6YDC) Integrated Programme
9. Master of Technology (Information Technology) (5YDC) Integrated Programme
10. Doctor of Philosophy (PhD) in Management
11. Doctor of Philosophy (PhD) in Computer Science

The lush green campus of the IIPS Includes an academic complex of classrooms, seminar room, an auditorium, a well-equipped library, computer labs and development center and administrative offices. The classrooms are specious and well equipped.

IIPS has one of the finest computing environments among the management Institutions in Central India. The institute provides internet facility through Wi-Fi to the students in campus.

About MBA (Tourism) 5 Years Programme

MBA (T) 5 years is an integrated five years program of IIPS. Tourism is the world's largest industry and one of the objectives of tourism development is economic gain. Tourism is the temporary short-term movement of people to destinations outside the places where they normally live and work, together with their activities and experiences during these journeys. Journeys are for pleasure, entertainment, culture, business, conferences,

visiting friends and relatives, adventure, shopping, dining, challenge and self development, or for a combination of these reasons. Tourism has become one of the world's largest and fastest growing industries ,because of several factors, such as rising levels of income, improvements in transportation and the introduction of low-cost airline services, easier access to destinations by tourists and the diversification of the industry with new market niches, such as cultural tourism, ecotourism and adventure tourism.

MBA (Tourism) 5 years programme is designed with the following objectives:

1. To train professionals capable of applying the following skills in the exercise of a profession:

- Management activities
- Advice
- Designing policies and tourism plans

2. To train professionals capable of developing the aforementioned activities:

- In an organization as a whole
- In any of its functional areas
- In the management of territories and tourist destinations

Graduates must know how all these functional areas operate within the general context of tourism, and within the global context of the economy. They must likewise be able to contribute to the smooth running of a business and to the improvement of its turnover.

This course aims at fulfilling the above objectives of Tourism so that the students can have more knowledge and expertise in tourism sector.

Name of the Programme: MBA (T) (5Years) Integrated programme

Programme Specific Outcomes

PSO1: Explain the role of and apply economics, accounting, financial management, human resource management and marketing knowledge and skills in decision making and management of tourism organisations.
PSO2: Recognise the potential impact of local and global economic conditions and events, with emphasis on the Asia Pacific region, on the operations and strategic management of organisations.
PSO3: Apply sound financial management techniques and analytical skills to authentic operations and strategic management issues of organisations.
PSO4: Apply contemporary strategic management practices compatible with organisational sustainability, ethical behaviour and effective workforce relations.
PSO5: Describe a range of research methods useful in the conduct of industry and organisation based projects, and discuss their benefits and limitations.
PSO6: Work both individually and in groups to conduct business research and critically evaluate the findings to solve business related problems.
PSO7: Present theoretical concepts and complex ideas in both written and verbal formats appropriate for a range of stakeholder audiences.
PSO8: Relate and apply their knowledge and skills to the tourism industry.

International Institute Of Professional Studies
Devi Ahilya Vishwavidhyalaya(DAVV)
MBA (T), 5 Years: Sem-I
Curriculum for MBA (Tourism) 5 Years: I-Semester

Subject Code	Subject Name
TM-101	Fundamentals of Management
TM-102	Introduction to Tourism
TM-103	Language Proficiency-English
TM-104	Indian History
TM-105	IT For Tourism
TM-106	Individual and Interpersonal behavior
TM-107	Comprehensive Viva-Voce

Examination:

Internal Assessment: 40 marks

Internal Assessment I : 20 marks
Internal Assessment II : 20 marks
Internal Assessment III : 20 marks

} Best OF Two

End- Semester Examination: 60 marks

TM-101 Fundamentals of Management

Course Outcomes:

CO1: Discuss and communicate the management evolution and how it will affect future managers.
CO2: Observe and evaluate the influence of historical forces on the current practice of management.
CO3: Identify and evaluate social responsibility and ethical issues involved in business situations and logically articulate own position on such issues.
CO4: Explain how organizations adapt to an uncertain environment and identify techniques managers use to influence and control the internal environment.
CO5: Practice the process of management's four functions: planning, organizing, leading, and controlling.
CO6: Identify and properly use vocabularies within the field of management to articulate one's own position on a specific management issue and communicate effectively with varied audiences.
CO7: Evaluate leadership styles to anticipate the consequences of each leadership style.
CO8: Gather and analyze both qualitative and quantitative information to isolate issues and formulate best control methods.

Course contents:

Unit 1 Management Concept and Theories: Concept and nature of Management, Role and responsibility and functions of Manager, Managerial Skill and organization hierarchy, Evolution of Management thoughts-(Classical School, Taylor,Fayol & Weber's Conditions), Neoclassical Theory (Elton Mayo Contribution) Modern Theory (Contingency & System Approach)

Unit 2 Planning: Nature and purpose of planning, Types of Planning, Planning Process, Nature and Objectives, MBO; Process, benefits and limitations.

Unit 3 Strategies, Policies and Planning: Nature and process of planning, Strategies planning process, TOWS Matrix, Porter's Generic Competency Model, Planning and Forecasting.

Unit 4 Organizing: Nature and Purpose of Organizing, Organizational Structure; Departmentalization, Line/Staff Authority & De centralization, Delegation.

Unit 5 Staffing & Directing: Concept, Nature ,Importance and Steps of Staffing and directing.

Unit 6 Controlling: Concept and Process of Control, Control Techniques, Human aspects of Controlling, Use of IT in Controlling.

Unit 7 Decision Making: Decision Making; Nature, Type & Scope of Managerial decision Making process, Model of decision making, Certainty in decision making.

Reference books:

- Koontz – Principles of Management (Tata McGrew Hill, 1st Edition 2008)
- Robbins & Caulter – Management (Prentice Hall of India, 8th Edition)
- L.M. Prasad – Principles & Practices of Management (Sultanchand & Sons , New Delhi)
- Parag Diwan – Management Principles and Practices (Excel Books, New Delhi)
- Stoner, Freeman, Gilbert. Jr. – Management (Prenlice Hall of India, 6th Edition)

TM-102 Introduction to Tourism

Course Outcomes:

CO1: The main Outcome of this subject is to develop a practical prospective on the travel and tourism industry.
CO2: The knowledge of this will help students understand the travel and tourism industry.

Course contents:

Unit-1 : Basic Concept & development of tourism: Tourism excursion leisure and recreation; tourist visitors travelers; history and evolution of tourism; roman empire and early travel, trade routes, concept of annual holiday social(paid) tourism, grand tour, dark age, renaissance in tourism; Thomas cook & early organized travels; modern day mass tourism.

Unit-2: Typology and forum of tourism; international tourism, inbound outbound,inter regional, intra region, domestic, internal , national tourism , type of tourism contemporary trend in Indian tourism.

Unit-3: Tourism Industry and its structure: attractions, accommodation, transportation, F&B, shopping, entertainment, infrastructure hospitality, Presents trends in domestic and global tourism.

Unit-4: Tourism system & environment: components of tourism, distribution, inter-relation between various segment, travels industry network, elements of tourism, tourism environment, Manila Declaration.

Unit-5: Tourism demand & Travels motivators: Basics of tourism demand, net travel propensity, gross travels propensity case study pattern of movement of tourist to India, travel motivators, physical motivators, inter personal motivators, status & prestige.

Unit-6: Future growth and development of Indian Tourism: 5 T'S of brand India, major tourism schemes of govt. of India, Visa on arrival (VoA), Prasad Scheme, Hriday Scheme, travel circuits, incredible India.

Unit-7: Tourism organizations: World Tourism Organization (WTO), Pacific Area Travel Association (PATA), World Tourism &Travel Council, (WTTC) Role and function of Ministry of Tourism, Govt. of India, ITDC, FHRAI, IHA, IATA. National and International Organizations related to travel and tourism.

Reference books:

- Manjula Chaudhaary, K.K. Kamara, Tourism Development; Impact & Strategies; Anmol Publications, 2002
- Goldener, C & Ritchie, B. Tourism Principles, Philosophy, Practices, John Wiley, New York, 2006
- J.K. Sharma, Tourism Planning and Development; A new Perspective, Kanishka Publishers, 2000
- Geoper et al, Tourism Principles 7 Practices, Pearson edn., New York, 2006
- Seth, P.N. Successful Tourism Management, Sterling Publication, New Delhi
- Negi, Jagmohan, Travel and Tourism, S.Chand & sons

TM-103 LANGUAGE PROFICIENCY-I (ENGLISH)

Course Outcomes:

CO1: Develop their ability to communicate in written mode with correct usage of English grammar.
CO2: Enhance their vocabulary and grammatical forms of English to use in specific communicative contexts.
CO3: Develop the speaking ability in English both in terms of fluency and comprehensibility.
CO4: Develop competence in the four modes: writing, speaking, reading and listening.
CO5: Gain an understanding of script writing, various motivational, leadership and problem solving stories for application of these ideas in real world situations.

Course contents:

Unit-1 : Vocabulary Building: -Antonyms, synonyms, prefixes, suffixes, article prepositions, tenses, worksheets, reading practice, hearing.

Unit-2 : Defining and describing: -Difference between defining and describing from the language point or view, Student will define simple day-to-day things, places, persons, devices, toot, etc and also describe them (Students will be given home assignments in vocabulary/definitions & descriptions. They will collect and past in their journal minimum 2 sample passage of style/ register and analyze, them)

Unit-3 : Writing different types of paragraph: -Structure of para- topic sentence, elaboration, explanation, illustrations etc., para of comparison, contrast, argumentative para, descriptive para.

Unit-4 : Scrape book: -Concept, usefulness and relevance, students will prepare a scrape book on a topic of their interest with the help of the teacher.

Unit-5 : Writing script for comparing a program: -Various functions of the college, festivals and other public functions.

Unit-6 : Reading and review: -Reading and review of 10 short stories (motivational, inspiring, problem solving, leadership etc. to be provided by the faculty in the beginning of the session)

Unit-7 : Grammer & Vocabulary: - Parts of Speech- Noun, Adjective, Verb, Adverb, Preposition, Pronoun, conjunctions, Interjections, Determiners, Articles, Phrasal Verbs, Subject & Verb Agreement, Tenses, New Words (Compound words, Aponyms. Pejoritive words, Loaning), Antonyms & Synonyms, Prefixes. & Suffixes

Reference books:

- N,Krishnaswamy, Modern English (Macmillan, India)
- Bhaskaran and Horsburgh, Strengthen Your English (OUP)
- Kane Thomos, The New Oxford Guide to Writing (OUP)
- Tikoo and Shashikumar, Writing with it purpose (OUP)

TM-104 Indian History

Course Outcomes:

CO1: Understand background of our religion, customs institutions, administration and so on.
CO2: Understand the present existing social, political, religious and economic conditions of
CO3: the people.
CO4: Analyze relationship between the past and the present is lively presented in the history.
CO5: Develop practical skills helpful in the study and understanding of historical events.
CO6: The study of history helps to impart moral education.
CO7: History installs the feeling of patriotism in the hearts of the pupils.

Course contents:

Unit 1 **The pre-historic period**- Indus Valley Civilization Source of Information, Vedic Period - Early and Later Vedic period. The Epic Age. Jainism, Teaching & Principles of Jainism, Contribution of Jainism to Indian Culture. Buddhism- Rise and Growth, Doctrines of Buddhism.

Unit 2 **Mauryan Period -** origin, growth and contribution, Sunga Dynasty, Kusana Dynasty, Gupta Period - political, religious, socio-cultural and economic development during Maurya to Gupta period. Political condition of North India, South India and Eastern India after Guptas.

Unit 3 **History of Medieval India 1206 - 1526 A.O.** Rise of Turks, causes of Success of Arab invasion and its impact, Slave Dynasty, Khaliji Dynasty, Tughlaq Dynasty, Sayyid Dynasty, Lodhi Dynasty. Moghuls. Babur, Humayun, Akbar, Jahangir, Aurangzeb.

Unit 4 **Political Condition of India in after Moghul-** Decline of Mughal emperor and its impact. Rise of Maratha Power under Shivaji. Advent of Europeans in India - Establishment of bases and trading centres of East India company and other European companies.

Unit 5 **Social and religious reforms movement in India**- Brahma Samaj, Arya Samaj, Rama Krishna Mission, Economic, political, religious and social development post Independence.

Unit 6 **Establishment of British Rule in India:** Strategies of Britishers.

Unit 7 **Indian Democracy:** Concept, contribution of different political parties for the development of India

Reference books:

- Themes of Indian History- Part 1, 2, 3 - NCERT (2013)
- Basham. A.L. (2004), The wonder that was India,Picador; Indian ed edition.
- Chandra Satish (2007), A History of Medieval India, Orient Black Swan
- Chandra Bipin (2009), History of Modern Indio, Orient BlackSwan.
- Bipin Chandra (2000), India Since Independence, Penguin India.

TM-105 IT For Tourism

Course Outcomes:

CO1: Professional Competence

Explain and understand the information technology applied in operational and managerial levels to the hospitality and tourism industry.

Recognize and identify the role of hospitality managers in information system development.

CO2: Critical Thinkers

Demonstrate hospitality-specific software applications to support and enhance work in the hospitality and tourism industry.

CO03: Effective Communicators

Deliver and present their innovative and strategic ideas effectively.

CO04: Innovative Problem Solvers

Evaluate the current information technology applications and discuss the future trends in the hospitality

CO05: Ethical Leaders

Understand global and ethical technology standards.

Course contents:

Unit 1. Fundamentals of Computer: Block diagram of the computer Input devices, Output devices. Operating systems: Introduction to operating system, Types of the Operating System, MS-DOS - DOS Features, External and Internal Commands, Working with Files, Working with Directories, Managing Disks, Advanced Command Techniques, Troubleshooting in hardware.

Unit 2 WINDOWS: windows operation, File management, Resource location, Managing icons and location, Control manager, Accessories of windows

Unit 3 MS – Word (Word Processing): Introduction, Working with Word, Typing and Editing, Formatting Text, Page design and layout, Adding Tables, Using styles, templates and themes, Merging Data and documents, Using Graphs, Advanced features of Word.

Unit 4 MS – Excel (Worksheet): Introduction, Working with Excel, Entering Data, Advanced worksheet formatting, Customizing Workplace, Calculation in Worksheets, Adding Charts, Working with lists databases and pivot table, Advanced features of Excel.

Unit 5 MS – PowerPoint (Presentation): Introduction, Working with PowerPoint, Adding Text, Expert presentation – building technique, Including Multimedia, graphics and special effects, Customize PowerPoint.

Unit 6 MS –Access: Access essentials, Creating and customizing tables, Linking Multiple tables, Using Queries to find and filter data, Designing and using forms, Presenting Data with reports

Unit 7 Introduction to Networking and Security: Internet- Definition, Services used in Internet, www, Protocols. Introduction to computer networks, Network -topologies, Network Security, Virus and its types, Issues used in Security of Data.

Reference books:

- Computer and commonsense, Roger Hunt and John Shelly
- Using MS- office 2000, Woody Leonhard
- The Computer Guide to MS – Office, Ron Monsfield
- The Complete ref, office 2000, Stephen L. Nelson

TM-106 Individual and Interpersonal Behavior

Course Outcomes:

CO1: Explain orally and in writing, how personality, emotions, values, attitudes and perception influence behavior in organizations.

CO2: Apply theories and concepts of motivation to develop strategies for improving work performance and organizational effectiveness.

CO3: Apply theories and concepts from the behavioral sciences to develop strategies for effective teamwork.

CO4: Present, individually and in groups, analytical findings concerning the behaviors of groups.

Course contents:

Unit-1:Foundation of Individual Behavior : Biographical characteristics, learning and learning theories,perception and its role in managerial decision making. Personality – Determination and Attributes.

Unit-2 :Motivation : Needs, Content and process, Maslow's hierarchy of needs, Herzberg's two factors theory. ERG theory.

Unit-3:Foundation of Group Behavior: Defining and Classifying groups, group structure and process, Group Behaviors process of group formation, Group decision making, group v/s teams team Effectiveness, Communication- process, fundamentals and issue.

Unit-4:Leadership : Trait theories, behavioral theories- ohio state studies, Michigan Studies And managerial grids; contingency theories, situational theories; Contemporary issue in leadership.

Unit-5:Stress Management: Stress Management – potential sources, consequences and coping strategies for stress .

Unit-6 : Managing Change: Organizational Change: Meaning, definition & Nature of Organizational Change, Types of organizational change, Forces that acts as stimulants to change.

Unit-7 :Implementing Organizational Change: How to overcome the Resistance to Change, Kurt Lewin's-Three step model, Seven Stage model of Change & Kotter's Eight-Step plan for Implementing Change, Dealing with Individual & Group Resistance.

Reference books:

- Human Resource Management : Gary Dessler,Pearson Education
- Managing Human Resources : David B Balkin, Pearson Education
- Organization Behavior by stephen robbins PHI
- Organization behavior by Fred Luthans, PHI

International Institute Of Professional Studies
Devi Ahilya Vishwavidhyalaya(DAVV)
MBA (T), 5 Years: Sem-II
Curriculum for MBA (Tourism) 5 Years: II-Semester

Subject Code	Subject Name
TM-201	Basics Of Accounting
TM-202	Hotel operations and Management
TM-203	French-I
TM-204	Principles of Marketing Management
TM-205	Yoga and Wellness
TM-206	Business Economics
TM-207	Comprehensive Viva-Voce

Examination:

Internal Assessment: 40 marks

Internal Assessment I : 20 marks
Internal Assessment II : 20 marks
Internal Assessment III : 20 marks

} Best OF Two

End- Semester Examination: 60 marks

TM-201
Basics of Accounting

Course Outcomes:
CO1: Develop and understand the nature and purpose of financial statements in relationship to decision making.
CO2: Develop the ability to use the fundamental accounting equation to analyse the effect of business transactions on an organisations accounting records and financial statements.
CO3: Develop the ability to use a basic accounting system to create (record, classify and summaries) the data needed to solve a variety of business problems.
CO4: Develop the ability to use accounting concepts, principles and frameworks to analyse and effectively communicate information to a variety of audiences.
CO5: Develop the ability to use accounting information to solve a variety of business problems.

Course contents:
Unit 1. **Introduction to Financial accounting:** Introduction, meaning of book keeping, accounting and accountancy, distinction between book keeping and accounting, accounting process, objectives of accounting, various uses of accounting information ,limitations of accounting, accounting terminologies(capital,asset,liability,expense,income,ecpenditure,revenue,debters,creditors,stock,purchase,sales,voucher,discount,transaction,drawings),accounting concepts and conventions, accounting standards.

Unit 2. **Recording of transactions and secondary books:** classification of accounts, double entry system ,rules for debit and credit, journal entries, cash books, ledger posting, trial balance.

Unit 3. **Final accounts:** Introduction, meaning, objectives and characteristics of final accounts, adjustment entries before preparation of final accounts, closing entries, trading accounts, profit and loss accounts and balance sheet, practical problems.

Unit 4. Depreciation: Introduction, meaning of depreciation, causes of depreciation, need for depreciation, factors affecting depreciation, methods of computation of depreciation(straight line method and written down value method)

Unit 5. **Joint stock company:** Importance, meaning and definition of a company, characteristics and kinds of companies, formation of a company.

Unit 6. **Shares and share capital:** under subscription, over subscription, calls in advance, calls in arrears, issue of shares at premium and discounts, buy back of share, surrender of shares.

Unit 7. **Debentures:** Classification, issue, terms of issue, writing of laws on issue of debentures, company final accounts; Introduction to company final accounts, profit and loss accounts, balance sheet, basics of preperation of simple company final accounts.

Text Book:
Maheswari S. N. and Maheswari S.K.(2013): An introduction to Accountancy, New Delhi, Vikas publishing house

Reference books:

- Sofat,Rajni and hero,Preeti(2014),Basic Accounting, Delhi;; PHI Learning Pvt. Ltd.
- Monga , J R and Ahuja Girish, Financial Accounting, Delhi; Mayur paper bags
- Sharma,D G Financial Accounting , New delhi;Texman Allied services Pvt Ltd.

TM-202
Hotel Operations and Management

Course Outcome
CO1. Identify different external considerations that impact upon hotel operations and the hotel sector.
CO2. Understand how hotel operation has responded to the forces of globalization at local and international scales
CO3. Understand the complex legal environment in which the hotel sector operates
CO4. Evaluate the service encounter within the hotel experience
CO5. Appreciate the interdependencies and necessary skills for successful hotel operations.

Course contents:
Unit 1: Tourism & Accommodation : Introduction to hotels, Accommodation Industry, Types , Evolution of lodging industry, Need, Importance, role of hotels, FHRAI, Star Hotels and Classification.

Unit 2: Hotel Industry an overview : Overview of Hotel Industry: brief history – last 70 years, Types of hotels – based on location, facility, size, clientele etc, Role of hotels for growth of Tourism Industry

Unit 3. Hotel Key Departments: Front Office Management -- Introduction to Front Office Department, Advantages, Formalities and formats, Types of rooms and plans. Organization Chart and duties and responsibilities, Qualities of a front-office staff

Unit 4.House Keeping: Introduction to Housekeeping, importance of housekeeping department, Organizational Chart and the duties and responsibilities. Cleaning- different equipments & agents, Daily routine systems, Laundry, Linen& Uniform, Interior Decoration & facilities, Special decorations.

Unit 5.Food & Beverage Service: Introducing to food & beverage Service, types of services, Organizational charts and duties

Unit 6. Marketing Of Hotels : Meaning and concept of Hospitality Marketing—importance & its future.

Unit 7. Computerization in hotel industry: How computers help to enhance services, Software and packages available for hospitality industry, Networking – how it improves services

Reference Text Books:
- Theory of Cookery -- Krishna Arora
- Modern Cookery Vol-I & II – T.E.Philip
- Food & Beverage Service – Vijay Dhawan
- Managing Front Office Operations – Michael L Kasarana & Richard Brooks
- Operations Management – Stainley Phornco
- House Keeping Manual – Sudhir Andrews
- Introduction to Hospitality - I & II – Dennis Foster
- Marketing of Hospitality ---- Kotler , Bowen , Makens.

TM- 203
French - I

Course Outcomes:

CO1: Listening, reading, speaking and writing skills in French language.

CO2: Enhance the vocabulary in French.

Course Contents:

1. **Story:** A spring time in Paris and an adventure in Burgundy:
   - Lesson 1: Meeting and introducing each other
   - Lesson 2: Striking a friendship
   - Lesson 3: Expressing one's likes and dislikes
2. Lesson 4: Expressing agreement and disagreement
   - Lesson 5: Expressing surprise
   - Lesson 6: A country side house
   - Lesson 7: Lunch at Broussace
3. **Vocabulary:** Profession and nationalities
   - Day-to-day life and hobbies
   - Physical and psychological descriptions
   - Cardinal numbers
   - Lodging and getting food
   - Clothes and colors
4. **Grammar:** Definite and Indefinite Articles
   - Gender and no. of nouns and adjectives
   - Masculine and feminine forms
   - Interrogative and negative forms
   - Conjugation of verbs in present tense
   - Portative articles
   - Demonstrative and Possessive adjectives
5. **Phonetics**
   - Intonation
   - Linking words
   - Oral and nasalized vowel sounds
   - Semi vowels
6. **Communication**
   - Meeting and getting to know each other
   - Inviting someone and replying
   - Describe people
   - Giving order and expressing obligation
   - Requesting and ordering
7. **Civilization**
   - Paris: Monuments and Public places
   - The life of four Parisians from different professions
   - The French Region: The Burgundy
   - Daily life in countryside

TM-204
Principles of Marketing Management

Course Outcome

CO1-Develop an ability to understand and develop the marketing mix for an organisation
CO2-Globalisation of marketing for organisational growth.
CO3-Understand the marketing environment.
CO-4Marketing information system and customer relationship management

Course Contents:

1. Marketing Concepts: Customer Value and Satisfaction, Customer Delight, Orientation of Marketing Concepts: Production Concept, Product Concept, Selling Concept, Marketing Concept and Societal Marketing Concept, Value Chain.

2.Understanding the Marketing Environment: Scanning the Environment, Micro- Environment,Macro-Environment.

3.Marketing Segmentation, Targeting and Positioning: Market Segmentation, Bases of Market Segmentation, Requirements of Effective Segmentation, Evaluating the Market Segments, Market Targeting: Undifferentiated Marketing, Single Segment and Multi- Segment Structures, Concept of Positioning.

4.Consumer Behavior: Model of Consumer Behavior, Factors Influencing Buyer Behavior,Decision-Making Process in Buying.

5. Marketing Research: Meaning and Process.

6. Elements of Marketing Mix:
Product Decision: Objectives, Core, Tangible and Augmented Products, Product Classification, Product Mix, Product Life Cycle and Strategies, New Product Development Process, Introduction and Factors Contributing to the Growth of Packaging, Introduction of Labeling.
Pricing Decisions: Factors affecting Price, Pricing Methods, Price adaptation Strategies.
Distribution Decisions: Importance and Functions of Distribution Channels, Considerations in Distribution Channel Decision, Distribution Channel Members, Intensity of Distribution, Channel Conflict and Channel Management.
Promotion Decisions: A view of Communication Process, Developing Effective Communication, Promotion Mix Elements.

7. Emerging Trends in Marketing: An introduction to Internet Marketing, Multilevel Marketing, CRM, Green Marketing, Social Media Marketing, Rural Marketing, Experiential Marketing and Event Marketing.

SUGGESTED BOOKS:
Philip Kotler, Principles of Marketing Management, New Delhi, Prentice Hall of India.
Ramaswamy and Namakumari, Marketing Management, Macmillan India.
Rajan Saxena,Marketing Management, Tata McGraw Hill.

TM-205
Yoga and Wellness

Course Outcomes:
CO1: Demonstrate basic skills associated with yoga activities including strength and flexibility, balance and coordination.
CO2: Demonstrate an understanding of health-related fitness components.
CO3: Identify the major muscle groups and their application to yoga.
CO4: Demonstrate an understanding of sound nutritional practices as related to health and physical performance.
CO5: Demonstrate an understanding of health problems associated with inadequate fitness levels.

Course contents:

Unit 1. **Origin and development of wellness tourism over ages-** Health as a motivator to travel , ancient centers of healing and bath, concept , definitions and dimensions of health, wellness and wellbeing, spirituality, quality of life(QOL), typologies of health tourism, factors affecting growth of health tourism.

Unit 2. **Leisure lifestyle and tourism**- Tools for wellness; medicine, therapy; therapeutic recreation, psychology, nutrition, rehabilitation, cosmetics.

Unit 3: **Factors influencing health and wellness tourism:** forms of health tourism-medical tourism, spa tourism, ayurvedic tourism, yoga and meditation tourism, holistic tourism, spiritual tourism, Ashram tourism.

Unit 4. **Concept and Dimensions of holistic health care:** The body, mind and spirit relationship. AYUSH-Ayurveda, Yoga and naturopathy, Siddha, Unani,Homeopathy, Aroma therepy.

Unit 5. **Yoga and meditation:** Origin and development of yoga and meditation in India, Different forms of yoga and meditation,

Unit 6. **impact of yoga:** The impact of yoga and meditation in the body and mind, international yoga day, some of the important yoga centers in India.

Unit 7. **Medical tourism:** Concept, typology, evolution of medical tourism, benefits of medical tourism, economics of medical tourism, Global medical tourism scenerio, countries promoting medical tourism, Indian medical tourism- potential and problems, market size and growth.

Text Books:

- Vishnudevanand Swami: The complete illustrated book of Yoga.
- Kulkarni, Sonali 2008, Spa and health tourism, book enclave, Jaipur
- Pruthi, Raj 2006, Medical tourism in India, Arise Publications ,New Delhi

Reference Books:

- Smith M. N. Puczko, L. 2009, Health and Wellness Tourism

TM-206
Business Economic

Course Outcome:
CO1 Apply the concept of opportunity cost
CO2 Employ marginal analysis for decision making
CO3 Analyze operations of markets under varying competitive conditions
CO4 Analyze causes and consequences of unemployment, inflation and economic growth

Course contents :
Unit 1.Economics Basics: Basic concepts, Tools and Techniques of economic analysis. Nature and Significance of Business Economics.

Unit 2 Demand Analysis: Market demand anlysis, Law of Demand, Elasticity of Demand, Demand Forcasting

Unit 3 Production and Supply Analysis: Concept of production function,Attributes of production function. Laws of Production: Law of Diminishing Return, Law of Constant Return, Law of Increasing returns. Supply analysis: Law of Supply.

Unit 4 Cost Analysis and Break- Even Analysis: Types of Cost, Short run Cost and Long run Cost Analysis, meaning, usefulness, limitations and method for determining break-even point.

Unit 5 Market and their Classification: Perfect Competition , Imperfect Competition and Monopoly: price determinationand Equilibrium of the firm and industry under these markets.

Unit 6 Measurements of National Income Determination: National Income and its Aggregates, methods used in calculation of national income. Importance of national income estimates. Difficulties in the measurement of national income.

Unit 7 Basic Macro Economic concepts for Open Economy : Business Cycles , Inflation and Deflation, Balance of Payments.

Text Books:
Principals of Micro Economics: Dr. H. L. Ahuja
Micro Economics theory and Application : D.N. Dwivedi
Business Economics : M. Adhikary
Business Economics: Dr. Mangal , Dr. Tanna
Macro Economics: Sunil Bhaduri
Macro Economics- Theory and Policy: H.L.Ahuja