SCHEME & SYLLABUS

CHOICE BASED CREDIT SYSTEM MASTER OF BUSINESS ADMINISTRATION



Department of Management
University Institute of Commerce and Management
(UICM)

Sant Baba Bhag Singh University 2019

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1 After 2nd semester the student will go for 6 weeks Industrial Training and will have to submit a project report of the same along with Power Point Presentation.

2 During the 4th semester the students of MBA undergo a final project report.

DSE: Discipline Specific Elective (Specializations)

Marketing

Group I

Subject Code	Subject Name	Course Type	Credits(L:T:P)
MGT607	Consumer Behavior	DSE	4:0:0
MGT609	Advertising and Sales Promotions	DSE	4:0:0
MGT611	Product and Brand Management	DSE	4:0:0
MGT613	Rural and Green Marketing	DSE	4:0:0
Group II	98884	CIPSII.	

Group II

Subject Code	Subject Name	Course Type	Credits(L:T:P)
MGT612	International Marketing	DSE	4:0:0
MGT614	Retail Marketing	DSE	4:0:0
MGT616	Services Marketing	DSE	4:0:0
MGT618	Marketing Research	DSE	4:0:0
MGT620	Digital Marketing	DSE	4:0:0
Finance	W 1/1 B	All 3/ Sept.	
Group I			

Finance

Group I

Subject Code	Subject Name	Course Type	Credits(L:T:P)
MGT615	Management of Financial Services	DSE	4:0:0
MGT617	Banking & Insurance Operations	DSE	4:0:0
MGT619	Financial Statement Analysis	DSE	4:0:0
MGT621	Global Financial markets and Institutions	DSE	4:0:0
Group II		/ 25///	
		A 7//	

Group II

Subject Code	Subject Name	Course Type	Credits(L:T:P)
MGT622	International Finance	DSE	4:0:0
MGT624	Security Analysis and Portfolio Management	DSE	4:0:0
MGT626	Management Control System	DSE	4:0:0
MGT628	Indian Taxation System	DSE	4:0:0
MGT630	Banking Management and Credit Analysis	DSE	4:0:0
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Human Resource Management

Group I

Subject Code	Subject Name	Course Type	Credits(L:T:P)
MGT623	Social Security and Labor Welfare	DSE	4:0:0
MGt625	Training and Development	DSE	4:0:0
MGT627	Negotiation and counseling for managers	DSE	4:0:0
MGT629	Competency Mapping	DSE	4:0:0
Group II		1	
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Subject Code	Subject Name	Course Type	Credits(L:T:P)
MGT632	International Human Resource Management	DSE	4:0:0
MGt634	Applied Industrial Psychology	DSE	4:0:0
MGT636	Organization Development	DSE	4:0:0
MGT638	Compensation and Reward Management	DSE	4:0:0
MGt640	Leadership	DSE	4:0:0

International Business Group I

Group I

Subject Code	Subject Name	Course Type	Credits(L:T:P)
MGT631	International Business Environment	DSE	4:0:0
MGt633	Foreign Trade Documentation and Trade Finance	DSE	4:0:0
MGT635	Global Marketing Management	DSE	4:0:0
MGT637	Global Strategic Management	DSE	4:0:0

Group II

Subject Code	Subject Name	Course Type	Credits(L:T:P)				
MGT642	International Business Laws	DSE	4:0:0				
MGt644	Global Logistics and Supply Chain Management	DSE	4:0:0				
MGT646	International Financial Management	DSE	4:0:0				
MGT648	WTO and RTAs	DSE	4:0:0				
MGt650	Cross Cultural Management	DSE	4:0:0				
Information Technology Group I							

Group I

Subject Code	Subject Name	Course Type	Credits(L:T:P)
CSA609	Cloud Computing	DSE	4:0:0
CSA611	Software Quality Assurance	DSE	4:0:0
CSA613	Big Data Analysis	DSE	4:0:0
CSA615	Data Warehousing and Data Mining	DSE	4:0:0

Group II

Subject Code	Subject Name	Course Type	Credits(L:T:P)
CSA614	Parallel Computing	DSE	4:0:0
CSA616	Compiler Design	DSE	4:0:0
CSA618	Ruby on Rail	DSE	4:0:0
CSA620	Image Processing	DSE	4:0:0



MBA 1st Sem

S No.	Course Type	Subject Code	Subject Name	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	Core	MGT501	Principles &				
			Practices of Management	4.0.0	4.0.0	4	4
2	Core	MGT503	Organization Behavior	4.0.0	4.0.0	4	4
3	Core	MGT505	Economic Analysis	4.0.0	4.0.0	4	4
4	Core	MGT507	Accounting for Managers	4.0.0	4.0.0	4	4
5	Core	MGT509	Managerial Quantitative Techniques	4.0.0	4.0.0	4	4
6	Core	MGT511	Viva Voce				1
	Total			20.0.0	20.0.0	20.0.0	21

Foundation Courses:

S No.	Course Type	Subject Code	Subject Name	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	FC	CSA503	Fundamental of Computer and IT	4.0.0	4.0.0	4	4
2	FC	MGT513	Communication and Marketing Skills	3.0.0	3.0.0	3	3
	Total			7	7	7	7

Total Credit Hours: 28

Total Contact Hours: 27

MBA 2nd Sem

S No.	Cours e Type	Subject Code	Subject Name	Contact Hours (L:T:P)	Credits (L:T:P	Total Contac t Hours	Total Credi t Hour
1	Core	MGT502	Business Environment in Indian Scenario	4.0.0	4.0.0	4	4
2	Core	MGT504	Marketing Management	4.0.0	4.0.0	4	4
3	Core	MGT506	Financial Management	4.0.0	4.0.0	4	4
4	Core	MGT508	Business Research Methodology	4.0.0	4.0.0	4	4
5	Core	MGT510	Advanced Human Resource Management	4.0.0	4.0.0	4	4
6		MGT512	Viva-voce				1
	Total			20.0.0	20.0.0	20	21

Foundation and Interdisciplinary Course:

S. No	Course Type	Subject Code	Subject Name	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	IC	To be offered from outside department		3.0.0	3.0.0	3	3
2	FC	MGT514	Basics of Entrepreneurship	3.0.0	3.0.0	3	3
	Total			6.0.0	6.0.0	6	6

Total Credit Hours: 27
Total Contact Hours: 26

MBA 3rd Sem

S No.	Course Type	Subject Code	Subject Name	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	Core	MGT601	Optimization Techniques for Managers	4.0.0	4.0.0	4	4
2	Core	MGT603	Project Management	4.0.0	4.0.0	4	4
3	DSE		Group I (Major)	4.0.0	4.0.0	4	4
4	DSE		Group-I(Major)	4.0.0	4.0.0	4	4
5	DSE		Group-I(Minor)	4.0.0	4.0.0	4	4
6	DSE		Group-I(Minor)	4.0.0 4.0.0 4		4	
7	Core	MGT605	Summer Training Report (Presentation cum Viva)			4	
	Total			24.0.0	24.0.0	24	28

Interdisciplinary Course:

S No.	Course Type	Subject Code	Subject Name	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	IC	To be offered from outside department		3.0.0	3.0.0	3	3
	Total			3.0.0	3.0.0	3	3

Total Credit Hours: 31 Total Contact Hours: 27

MBA 4th Sem

S No.	Course Type	Subject Code	Subject Name	Contact Hours (L:T:P)	Credits (L:T:P)	Total Contact Hours	Total Credit Hours
1	Core	MGT602	Strategic Management & 4.0.0 Business Policy		4.0.0	4	4
2	Core	MGT604	Corporate Law	4.0.0 4.0.0 4		4	4
3	DSE		Group-II(Major)	4.0.0	4.0.0	4	4
4	DSE		Group-II(Major)	4.0.0	4.0.0	4	4
5	DSE		Group-II(Major)	4.0.0 4.0.0 4		4	4
	Core	MGT606	Workshop on Entrepreneurship	0.1.2 0.1.2 2		2	2
6	Core	MGT608	Major Research Report			3	
7	Core	MGT610	Comprehensive Viva Voce			2	
	Total			20.1.2	20.1.2	22	27

Total Credit Hours: 27
Total Contact Hours: 22

Course Code	MGT501
Course Title	Principles and Practices of Management
Type of Course	Core
LTP	4 0 0
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives	The objective of this course is to develop a basic understanding about the
(CO)	management concepts as well as of human in various managerial processes in
	organization.

Unit-I

Management: definition, nature, purpose and scope, functions of a manager, roles and skills, manager's job and universality of management. **Historical background of Management**: classical approach, scientific management, general administrative theory, quantitative approach, total quality management, quantitative approach, behavioral approach, early advocates of organizational behavior, the behavioral approach, the contemporary approach and the Hawthorne studies.

Unit-II

Planning: types of plans, process of planning, nature and purpose of strategies and policies. **Management by Objectives**: concept, objectives setting process, benefits and weaknesses of MBO. **Decision Making**: process, types of decisions and decision making conditions, decision making styles, decision making and planning. **Organizing**: concept of organization, process of organizing, basis of Departmentation, authority and power, line and staff relationships delegation of authority, responsibility and accountability, steps to make delegation effective decentralization, purpose and types of decentralization, span of management.

Unit-III

Directing: motivating and leading people at work. **Communication**: nature, process, networks and barriers, effective Communication. **Leadership**: concept, nature, importance, attributes of a leader, developing leaders across the organization. **Coordination**: need, factors which make coordination difficult, techniques to ensure effective coordination. **Control**: planning-control relationship, process and techniques of control, human response to control, types of control-feed forward control, concurrent control (Real Time Information & Control), and feedback control.

Unit-IV

International Management Practices: a comparative study of management practices in India, Japan, USA and China with particular reference to planning, organizing, directing, staffing and controlling. Recent developments in the field of Management in a global perspective, Business Ethics and Social Responsibility.

S. No.	Author(s)	Title	Publisher
1	Koontz	Essentials of Management	Tata McGraw-Hill
2	Freeman, Gilbert Jr	Principles of Management	Pearson Education

Course Code	MGT503
Course Title	Organization Behavior
Type of Course	Core
LTP	4 0 0
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives (CO)	This course emphasizes the importance of human capital in the organizations of today.
	It gives an insight to the students regarding individual and group behavior.

Unit-I

Organizational Behavior: concepts, features and importance, challenges and opportunities for OB, foundations of individual behavior. Learning: concept, theories and principles of learning. Perception: concept, perceptual process, factors in interpersonal perception. Attitude: concept, components, attitude formation. Leadership: concept, theories and leadership styles in management.

Unit-II

Motivation: concept, objectives, types and theories of motivation. Transaction Analysis: life positions, levels of self awareness, Johari window model, ego states. Personality: concept, theories of personality, determinants of personality, personality attributes influencing OB. Group Dynamics: concept and nature of group formation, group structure, models of group formation, theories of group formation, group decision making techniques.

Unit-III

Conflict Management: - definition, sources of conflict, transitions in conflict thought, levels of conflict, conflict management. Power & Politics: concept, basis of power, tactics to gain power. Stress Management: meaning, concept, causes of organization stress, stress management. Organization Change: concept, change agents, change model.

Unit -IV

Organization Culture: concept, functions of organization culture, development and implications of organization culture, creating and sustaining organization culture. Organization Development: concept, interventions of organization development. Organization Effectiveness: concept and approaches to OE, factors in OE.

S. No.	Author(s)	Title	Publisher
1	Luthans,F	Organizational Behavior	McGraw –Hill Inc.
2	Newstrom, J.W. and Davis,	Human Behavior at Work	The McGraw Hill
	K		Companies, Inc

Course Code	MGT505
Course Title	Economic Analysis
Type of Course	Core
LTP	4 0 0
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives (CO)	The primary purpose of the course is to develop tools useful in making use of scarce resources and to understand the economy.

Unit-I

Introduction to Managerial Economics: scope of managerial economics and other disciplines, basic economics concepts in decision-making, distinction between micro and macroeconomics. Demand analysis, Elasticity of Demand.

Unit-II

Cost Analysis: concept of cost and its types, cost output relationship in short and long period. Indifferences curves. **Pricing analysis**: market structures, price determination under different market situations (perfect competition, monopoly, monopolistic competition, oligopoly), break even analysis.

Unit-III

National income analysis, **Theories of income**, **output and employment**: classical and Keynesian. **Theory of multiplier**: concepts of static and dynamic multiplier, balanced budget multiplier, income generation process through multiplier.

Unit-IV

Theory of Trade Cycle: concepts and causes of trade cycles, measures to control trade cycles. **Macro economics policy**: monetary and fiscal. **Theories of inflation**: cause and control of inflation.

S. No.	Author(s)	Title	Publisher
1	Thomas and Maurice	Managerial Economics	McGraw- Hill
2	D.M.Mithani	Managerial Economics	Himalaya Publication
		Theory and Applications	

Course Code	MGT507
Course Title	Accounting for Managers
Type of Course	Core
LTP	400
Credits	4
Course Pre-requisites	Graduation in any stream
Course Objective	A primary purpose of the course is to develop the knowledge
	useful in accounting system and book keeping.

Unit-I

Introduction to Accounting: Financial Accounting concept, Basics of Accounting: concepts and principles, accounting cycle, nature and purpose of accounting, Accounting records and system: users of accounting information, Journal (With Practical), Ledger (with Practical).

Unit-II

Trial Balance (with Practical), **Final Accounts** (with Practical). **Analysis of Financial Statement**: ratio analysis (with practical) and cash flow and fund flow statement analysis.

Unit-III

Introduction to cost Accounting and Management Accounting: meaning and their interrelationship with Financial Accounting. Introduction to Marginal Costing: cost volume profit relationships, budgets .Unit-IV

New development in Management Accounting: activity-based costing, life-cycle costing, target costing and kaizen costing, significance of computerized accounting system.

S.No.	Author(s)	Title	Publisher
1	Thomas and Thomas	Accounting for Managers	McGraw- Hill
2	Garg, Sareen and Chawla	Management Accounting	Himalaya Publication

Course Code	MGT509
Course Title	Managerial Quantitative Techniques
Type of course	Core
LTP	400
Credits	4
Course prerequisite	Graduation in any stream.
Course Objective (CO)	The goal is to provide a basic understanding of the concept of statistics
	analysis and use of these techniques managerial applications.

Unit -I

Measures of Central Tendency: Arithmetic Mean; calculation of mean in individual, discrete and continuous series, properties of arithmetic mean, combined mean, Median; calculation of median in individual, discrete and continuous series, Mode; calculation of mode in individual, discrete and continuous series, comparison of mean, median and mode. Measures of Dispersion: range, quartile deviation, coefficients of range and quartile deviation. Mean Deviation: calculation of mean deviation in individual, discrete and continuous series. Standard deviation: calculation of standard deviation in individual, discrete and continuous series, combined standard deviation. Variance: coefficient of variation.

Unit-II

Correlation Analysis and Regression Analysis: scatter diagram, Karl Pearson's coefficient of correlation, rank correlation. Regression Equations: deviation taken from assumed mean and arithmetic mean, least square method. Index Number: methods of constructing index number, Laspeyres, Paasche, Bowley's, Fisher and Marshall- Edgeworth method, chain base Index Number.

Unit-III

Matrices: introduction to matrix, types of matrix, difference of two matrix, properties of addition of matrix, product of two matrix, transpose of matrix, determinants of a matrix, cofactors, minors of a matrix, adjoint of a matrix, inverse of a matrix.

Unit-IV

Probability distributions: meaning, types and applications, binomial, Poisson and Normal distributions. **Analysis of Time Series**: method of semi-average, moving average, simple average, method of least square. Arithmetic and Geometric progression.

S. No.	Author(s)	Title	Publisher
1	Gupta, S C	Fundamentals of	New Delhi: Himalaya Publishing
		Statistics	House, 2001. Print
2	Gupta, S P	Statistical Methods	New Delhi: Sultan Chand, 1979. Print

Course Code	CSA503
Course Title	Fundamentals of Computer &IT
Type of Course	Core
LTP	400
Credits	4
Course Prerequisites	Basic knowledge about Computer & internet
Course Outcome (CO)	Obtain understanding of the concepts of Information
	Technology and its applications.

Unit-I

Introduction to Information Technology: basic concepts of IT. Data Processing: Data and Information, Classification, History and Types of Computers. Elements of a Computer System: block diagram of the computer system. Introduction to various units: CPU, memory, input and output devices, auxiliary storage devices. System and Application Software, Utility packages, Configuration of Computer System. Applications of Information Technology: wide range of applications in home, education and training, entertainment, science, medicine, engineering etc

Unit-II

Introduction to Information Technology Tools: operating system, programming languages, features and trends. Introduction to MS-DOS/WINDOWS/LINUX/UNIX. Office Automation Tools: MS-Office, introduction to MS word and its features, creating, editing, printing and saving documents, spell check, mail merge, creating power point presentations, creating spreadsheets and simple graphs, PowerPoint, Excel, Access. Translators: Assembler, Compiler and Interpreter.

Unit-III

Business Files: concept of character, field, record and file. Types of Data Files: master file, transaction file, archival file. File Organization: sequential file, indexed sequential file, random files, comparison of various types of file organization, choice of files organization, design of computer data files, files security and back-up.

Unit-IV

Computers and Communication: Introduction to Computer Networks, Internet and World Wide Web, FTP, Electronic Mail. Web Development Tools: FrontPage, HTML. Information Security and Integrity: basic concepts, perverse software, preventive measures and treatments.

S. No.	Author(s)	Title	Publisher
1	Sanders, D.H	Computer Today	Mc-Graw Hill,
2	Raja Raman V	Fundamental of Computers	Prentice Hall of India

Course Code	MGT513
Course Title	Communication and Marketing Skills
Type of Course	Theory
LTP	400
Credits	4
Course	Graduation in any stream.
pre-requisite	
Course Objectives	The objective of this course is to assist the students to acquire proficiency, both in spoken
	and written language.

Unit-I

Introduction to Communication: meaning, process, importance of communication in business, types of information, formal and informal communication, internal and external communication, communication channels, choosing the means of communication, audience analysis, ethical considerations for business communication, media of communication, barriers of communication, approaches to effective communication, essentials of effective business communication (7Cs model).

Unit-II

Developing Listening Skills: importance, purpose of listening, art of listening, factors affecting listening, components of effective listening, process of listening, principles and barriers to listening, activities to improve listening. **Non verbal communication**: features, understanding of body language, posture, gestures.

Unit-III

Types of Communication: oral communication, art of public speaking, telephonic conversations and voice mails, group communication through committees, preparing and holding meetings, other formal communication with public at large, seminar, symposia and conferences.

Unit-IV

Written Communication: layout of letter writing, types of letter writing: persuasive letters, request letters, sales letters, interview letters, promotion letters, resignation letters, newsletters, circulars, agenda, notice, office memorandums, office orders, press release. Report Writing: structure, types, formats, drafting of various types of report.

S. No.	Author(s)	Title	Publisher
1.	Varinder Kumar and Bodh	Business Communication	Kalyani Publishers
	Raj		
2.	R. Datta Roy and K.K.	Communications Skills	Vishal Publishing
	Dheer		Company

Course Code	MGT502
Course Title	Business Environment in Indian Scenario
Type of Course	Core
LTP	4 0 0
Credits	4
Course	Graduation in any stream.
Prerequisites	
Course Objectives	The basic objective of the course is to develop understanding and provide
(CO)	knowledge about business and various factors which affect the business.

Unit-I

Business Environment in India: concept, features, elements of environment, political, legal, social- cultural, technological and economic. **Environment Scanning**: techniques used for scanning.

Unit-II

Monetary and Fiscal Policies, Multinational corporations, Globalization, **Social audit**: meaning and importance. Sun-rise sectors of India economy. Challenges of Indian economy, Economic Policy. Competition Law. RTI Act. Consumer Protection Act.

Unit-III

Recent World Trade and Foreign Investment trends: world financial environment, tariff and non tariff barriers, regional blocks, international production, internationalization of service firms, operation management in international firms.

Unit-IV

Challenges faced by international business and investment opportunities for Indian industry. **FDI**: meaning, FDI concepts and functions, need for FDI in developing countries, factors influencing FDI, FDI operations in India, GATT and WTO.

S. No.	Author(s)	Title	Publisher
1.	Francis cherunilam	Business Environment	Himalaya
			Publishing House
2.	D. Amar chand	Govt. and Business	Tata McGraw Hill

Course Code	MGT504
Course Title	Marketing Management
Type of Course	Core
LTP	4 0 0
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives	The objective of this course is to facilitate understanding of the
(CO)	conceptual framework of marketing and its applications.

Unit-I

Introduction to Marketing: concept, nature, scope and importance of marketing, its evolution, Marketing mix, Strategic marketing planning an overview. Market Analysis and Selection: marketing environment, macro and micro components and their impact on marketing decisions, Market segmentation and positioning. Buyer behavior: consumer versus organizational buyers.

Unit-II

Product Decisions: concept of a product, classification of products, major product decisions, product line and product mix, branding, packaging and labeling, Product life cycle strategic implications, New product development and consumer adoption process. **Pricing Decisions:** factors affecting price determination, pricing policies and strategies.

Unit-III

Distribution Channels and Physical Distribution Decisions: nature, functions and types of distribution channels, distribution channel intermediaries, **Promotion Decisions**: communication process, promotion mix, advertising, personal selling, sales promotion, publicity and public relations, determining advertising budget, media selection, advertising effectiveness, sales promotion tools and techniques.

Unit-IV

Marketing Research: meaning and scope of marketing research, marketing research process. Marketing Organization and Control: organizing and controlling marketing operations. Issues and Developments in Marketing: social, ethical and legal aspects of marketing, marketing of services. International marketing, Green marketing, Cyber marketing, Relationship marketing and other developments of marketing.

S. No.	Author(s)	Title	Publisher
1	Kotlar, Philip	Marketing	Prentice Hall, NewDelhi.
		Management	
2	Stanton, Etzel, Walker	Fundamentals of Marketing	Tata-McGraw Hill, New Delhi.

Course Code	MGT506
Course Title	Financial Management
Type of Course	Core
LTP	4 0 0
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives (CO)	The focus of this course is to help students to understand how a firm meets its financial objectives utilizing financial decision-making.

Unit-I

Financial-management: meaning, scope, objectives and financial goals of financial management, finance function.

Source of Long Term funds: equity shares, preference share, debentures, public deposits, factors affecting long term funds requirements. Cost of Capital: concept, objectives, calculation of cost of capital.

Unit-II

Capital Budgeting: capital budgeting process, project selection. Capital budgeting techniques: payback period methods, average rate of return, net present value methods, IRR, benefit-cost ratio, Capital Rationing. Lease Financing: concepts, types of leases.

Unit-III

Capital Structure: determinants of capital structure, capital structure theories.

Leverage: operating and financial leverage.

Management of Retained Earnings: retained earnings & dividend policy, consideration in dividend policy, forms of dividends theories.

Unit-IV

Working Capital: concept, factors affecting working capital requirements, operating cycle of working capital, sources of working capital.

Inventory Management: concept, objectives, inventory control techniques, EOQ.

Cash Management: concept, motives for holding cash, estimation of cash requirements.

Recent Developments in asset pricing: introduction to concepts CAPM.

S. No.	Author(s)	Title	Publisher
1	Khan & Jain	Financial Management	Tata McGraw Hill
2	I.M. Pandey	Financial Management	Vikas publishers

Course Code	MGT508
Course Title	Business Research Methodology
Type of course	Core
LTP	400
Credits	4
Course prerequisite	Graduation in any stream
Course Objective (CO)	The course aims at equipping students with an understanding of the research process, tools and techniques in order to facilitate managerial decision making.

Unit-I

An Introduction to Research: meaning, definition, objectives and process. Research Problem: selection of problem, understanding problem, necessity of defined problem, review of literature in research. Research Design: meaning, types, descriptive, diagnostic, exploratory, and experimental.

Unit-II

Sources of Data: primary and secondary, data collection methods, questionnaire designing and construction, questionnaire types and developing a good questionnaire, sampling design and techniques. **Scaling Techniques**: meaning, types, data processing operations, editing, coding, classification, tabulation, research proposal/synopsis writing.

Unit-III

Sampling Distribution, **Tests of Significance**: Z-Test, T-Test, Chi-Square Test, F -Test, And ANOVA, Use of SPSS for T-Test, Chi-Square Test and ANOVA.

Unit-IV

Multi Dimensional Scaling: factor analysis, cluster analysis, interpretation of data, report preparation and presentation. Each Student has to prepare Mini Research Project on Topic / Area of their Choice and Make Presentation. The report should consist of application of tests and techniques mentioned in above units. Relevant Case Studies should be discussed in class.

S. No.	Author(s)	Title	Publisher
1.	CR Kothari	Research Methodology	Tata McGraw Hill
2.	Willian G.Zikmund	Business Research Methods	Thomson South- Western Learning

Course Code	MGT510	
Course Title	Advanced Human Resource Management	
Type of Course	Core	
LTP	400	
Credits	4	
Course Prerequisites	Graduation in any stream.	
Course Objectives	The course is designed to give an understanding of the various aspects	
(CO)	of the management of human resources in an organization.	

Unit-I

Human resource management: functions, scope and models, HRM environment and environmental scanning. **Human Resource Planning (HRP)**: concept, need and importance of HRP, factors affecting HRP, process of HRP. **Job Analysis**: meaning and objective, process, methods of collecting job data, problems of job analysis, recruitment & selection, induction and placement, training and development.

Unit-II

Performance Appraisal: methods & techniques, potential Management, fringe benefits and incentives, compensation management, career planning and development, managing promotion, demotion, transfer, quality of work life. **Job Evaluation**: meaning, process and methods of job evaluation.

Unit-III

Team Management, Empowerment Management, Creativity and Decision Making Management, Organizational Learning and Knowledge Management, Culture Management, Change Management, Managing ethical issues in HRM, Values, principles, policies and procedure of MNC's.

Unit-IV

Labor relations and employee security, Industrial relation and collective bargaining, Trade unions, Future of trade unionism. HRD & implications for HRD, Contemporary issues in HRM, Global HR practices. HRD audit.

S. No.	Author(s)	Title	Publisher
1	K, Aswathappa	Human Resource	Tata McGraw-Hill.
		Management	
2	V.S.P.Rao	Human Resource	Himalaya
		Management	Publishers.

Course Code	MGT514
Course Title	Basics of Entrepreneurship
Type of course	Core
LTP	3 0 0
Credits	3
Course prerequisite	Graduation in any stream.
Course Objectives	The objective of the syllabus is to make students aware with the basics of
(CO)	entrepreneurs and required knowledge for entrepreneurship.

Unit-I

Foundations of Entrepreneurship: Concept, need, definition and role of entrepreneurship characteristics and scope of entrepreneur, roles and responsibilities of entrepreneurs in Indian economy, Invention, Creativity, Opportunities, Manager, Corporate Entrepreneur comparative study.

Unit-II

Women entrepreneurs and entrepreneurship: Meaning, role, problems and reasons for less women entrepreneurs. Various institutes & Government schemes to help and uplift women entrepreneurs. Case studies for successful women entrepreneurs. Entrepreneurship Development: Concept, need & role of entrepreneurship development.

Unit-III

Small and Medium Enterprises: role and importance of SME in India Economy, **Small and Medium Industry**: meaning and importance, steps for starting Small Industry. Decisions and steps to be taken to become entrepreneur, **Search for a business idea**: source of ideas, idea processing, selection idea, input requirements.

Unit-IV

Innovation management: definition and process of innovation management methods of management innovation, entrepreneurship as a career, sustaining competitiveness, maintaining competitive advantage.

S.No.	Author(S)	Title	Publisher
1	Renu arora S.K sood	Fundamentals of Entrepreneurship	Kalyani Publishers
2	Richard Branson	Entrepreneurship and Business	Pearsons

Course Code	MGT601
Course Title	Optimization Techniques for Managers
Type of Course	Core
LTP	400
Credits	4
Course Prerequisites	Graduation in any stream.
Course objective(CO)	This course is an introduction to a broad range of mathematical
	techniques for solving problems that arise in management to
	allocate resources and their effective utilization.

Unit-I

Operation Research: concept and significance of operations research, evolution of operation research, steps in designing operations research studies, operations research models. **Linear Programming and its Applications**: graphic method and simplex method, Duality problem.

Unit-II

Replacement problem: introduction, replacement of equipment/asset that deteriorates gradually, individual and group replacement, Assignment problems, Transportation problems, Game theory.

UNIT-III

Inventory and Queuing Management: concepts of inventory management, inventory models, classical EOQ, EOQ with price breaks, safety stock and reorder level, probabilistic model. Queuing Models: concept, features, assumptions, customer and system services.

Unit-IV

Project Scheduling: concepts of PERT & CPM techniques and their applications. **Network Analysis**: scheduling activities, determining critical path, calculation of floats; calculation of slack through forward and backward passes.

S. No.	Author(s)	Title	Publisher
1	F.S. Hiller and G.I.	Introduction to Operation	Tata McGraw Hills
	Libermann	Research	
2	R Panneerselvan	Operations Research	Himalaya Publishers

Course Code	MGT603
Course Title	Project Management
Type of Course	Core
LTP	4 0 0
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives (CO)	The course is aimed at developing and understanding of project activities and relevant skills.

Unit-I

Introduction to Project Management: objectives, need for project management, project life cycle, project management framework, steps in project planning, managing risk, and components of risk management.

Unit-II

Project appraisal Techniques: market and demand analysis, technical analysis, financial analysis, social cost benefit analysis, developing an effective business plan.

Unit-III

Project Selection: Project selection, preparing a Request for Proposal, Soliciting Proposals, Project organization, the project as part of the functional organization, Pure project organization. The matrix organization, Mixed Organizational Systems. **Scheduling techniques**: PERT & CPM, LOB.

Unit-IV

Project Audit: project audit life cycle, responsibilities of evaluator/ auditor, responsibilities of the project manager.

S. No.	Author(s)	Title	Publisher
1.	M. Patel Project	Project Management	Vikas Publishing
2.	Prasanna Chandra	Project management	Tata McGraw Hill

Course Code	MGT607
Course Title	Consumer Behavior
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Graduation in any stream
Course Objectives (CO)	The objective of this course is to help students understanding the
	various factors effecting consumer behavior and to understand
	the process of consumer buying.

Unit-I

Introduction to Consumer Behavior: nature, scope and importance. **Consumer Motivation**: nature of motivation, types of consumer needs and motives, dynamics of motivation, need conflict, need hierarchy theory of motivation and its applications, measurement of motives.

Unit-II

External Influences on Consumer Behavior, **Group behavior**: meaning and types of group influence, reference groups, group appeals. **Family**: functions of family, family decision making, family life cycle. **Culture:** Values and Norms, characteristics and affect on consumer behavior, types of sub culture. **Social Class**: categories, consumer behavior in adapting new products, participants in buying decisions.

Unit-III

Personality and Consumer Behavior: definition of personality, theories of personality, personality and consumer diversity, self concept and self image, life style and psychographics. **Consumer Perception**: elements of perception, dynamics of perception, perceptual process, perception and marketing strategy, perceived risk.

Unit-IV

Consumer Buying Behavior: buying process, types of consumer decisions, strategies to change consumer behavior, types of consumer decisions-making models. post purchase behavior, diffusion process.

S. No.	Author(s)	Title	Publisher
1.	Schiffman, I.G.	Consumer Behaviour	Pearson Eductaion
2.	Engel James F	Consumer Buying Process	Tata Mcgraw Hills
		, ,	

Course Code	MGT609
Course Title	Advertising & Sales promotion
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Graduation in any stream
Course Objectives (CO)	The objective of this course is to develop the understanding about
	the marketing communication tools and implement them in
	designing Advertisement strategies.

Unit-I

Introduction to Advertising: meaning, nature, scope and classification, key players in advertising, role of advertising and its importance, surrogate advertising, puffery in advertising. advertising's role in marketing mix, , role of advertising in India's economic development, ethics in advertising, social, economic and legal aspects of advertising. **Integrated Marketing Communication**: AIDA Model, Laivdge – Stenier Model of communication.

Unit-II

Managing an Advertising Program: message structure, appeals, copy, layout. Advertising Media: media planning, media selection and scheduling. Advertising Budget: concept, objectives, methods. Advertising Agencies: types, role and functions, social and cultural consequences of advertising, advertising and stereotyping.

Unit-III

Sales Management: nature and scope of sales management, motivating sales personnel, carving territories, routing, quota sales, sales planning, sales forecasting, selection and training of sales personnel, supervision and appraisal of sales personnel.

Unit-IV

Sales organization: Sales Functions and its relationship with other marketing functions, external relationship of the sales department e.g. with distributors, government and public, functions and qualities of a sales executive.

S. No.	Author(s)	Title	Publisher
1	Rajeev Batra	Advertising and Sales	Pearson Education
		Management	
2	CN Sontakki	Advertising and Sales	Kalyani
		Management	

Course Code	MGT611
Course Title	Product and Brand Management
Type of course	DSE
LTP	400
Credits	4
Course prerequisite	Graduation in any stream.
Course Objectives (CO)	The objective of the syllabus is to provide understanding of product management and to develop an understanding of the brand concept and the operational aspects of managing a brand.

Unit-I

Product Management: concept, objectives, product classification, product focused organization, market focused organization, factors influencing design of the product, changes affecting product management. **Developing Product Strategy**: setting objectives & alternatives, product strategy over the life-cycle, customer analysis and competitor analysis.

Unit II

New Product Development. Market Potential & Sales Forecasting, Forecasting target market, Methods of estimating market and sales potential, Planning for involvement in international market.

Unit III

Brand-concept: nature and importance of brand, brand life cycle, brand name and brand management. **Brand Identity**: conceiving, planning and executing, Aaker Model, BRANDZ model. **Brand Loyalty**: measures of loyalty. **Brand Leveraging & Brand Performance**: establishing brand equity management system, measuring sources of brand equity, co-branding.

Unit IV

Brand Positioning & Brand Building: brand knowledge, brand portfolios and market segmentation, steps of brand building, identifying and establishing brand positioning, defining and establishing brand values, designing & sustaining branding strategies. **Suggested – Readings:**

S.No.	Author(S)	Title	Publisher
1	Donal R. Lehmann	Product Management	Mc Graw Hill.
2	Keller K. L.	Strategic Brand Management	PearsonEducation

Course code	MGT613
Course Title	Rural and Green Marketing
Type Of course	DSE
LTP	400
Credits	4
Course Prerequisites	Graduation in nay stream.
Course objective	The objective of this course is to explore the students to the Agriculture and Rural Marketing environment.

Unit-I

Introduction to Rural Marketing: concept, scope, characteristics of rural marketing, rural markets, environmental factors affecting rural marketing, relevance of marketing mix for rural market/consumers. The Rural Consumer: factors influencing purchase decision. Rural Demand: nature, types of requirements, efforts put for rural development in five years plans. rural consumer behaviour, rural

consumer vs. urban consumers – a comparison.

Unit-II

Market Segmentation: concept, features, basis of segmentation. Targeting and Positioning for rural market, Market forces, Components of different Product Strategies, Pricing Strategies, Promotional Strategies and Distribution Strategies for Rural consumers. Agricultural Marketing: nature, scope, objectives of agriculture marketing, challenges in agriculture marketing, agriculture marketing & its economic importance.

Unit-III

Rural Marketing communication: communication strategies for rural markets, rural media, sales promotion, financial services in rural India, information and communications technology in rural areas, distribution channel behaviour, distribution models, rural logistics, role of government in rural India, future of rural marketing.

Unit-IV

Introduction to Green Marketing: strategic green planning, green product, green behavior, five shades of green consumers, green consumer's motives, buying strategies. green business opportunities, designing green products, innovation, fundamentals of green marketing, establishing credibility, green distribution and packaging, contemporary government policies and subsidies that aids green product development and green marketing.

S. No	Author(s)	Title	Publisher
1	Badi & Badi	Rural Marketing	Vikas
2	Mamoria, C.B. & Badri Vishal	Agriculture problems in India	Pearsons

Course Code	MGT615
Course Title	Management of Financial Services
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives (CO)	The objective of the course is to acquaint the students with the
	various financial services and techniques to manage them.

Unit-I

Financial Services: concept, objectives, features, introduction of financial intermediaries and financial services, organization of the financial service industry, various financial intermediaries, recent development in financial services, financial services in India,

Dematerialization and Rematerialization: role, objectives and functions of SEBI and its latest guidelines relating to depository system.

Unit-II

Broking: broking services and trading in equity and trading in debt.

Mutual Funds: concept of mutual funds, types of mutual funds, advantages, structure of mutual funds and tax treatment, SEBI and its latest mutual funds regulations.

Unit-III

Credit rating: the concept and objective of credit rating, various credit rating agencies in India and International credit rating agencies, factors affecting credit rating & procedural aspects. **Leasing:** definition, types of leases, advantages, disadvantages, comparison between lease and hire purchase.

Unit-IV

Merchant Banking: Origin and development of merchant banking in India, scope, organizational aspects and importance of merchant bankers, latest guidelines of SEBI w.r.t. merchant bankers.

Factoring: meaning, forms, functions, legal aspects and evaluation.

Plastic Money: concept and different forms of plastic money, credit and debit cards, pros and cons, credit process followed by credit card organizations, factors affecting utilization of plastic money in India.

S. No.	Author(s)	Title	Publisher
1	M.Y. Khan	Marketing of Financial	Tata McGraw Hill
		Services	
2	V. A. Avdhani	Financial Services	Himalaya Publishing
			House

Course Code	MGT617
Course Title	Banking and Insurance Operations
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives (CO)	To familiarize students with the applications of banking and insurance operations in the business.

Unit-I

Introduction to Banking in India: concept, objectives, regulatory body of banking, types of banks, roles of banks (viz. Intermediation, Payment system and financial services), Banking Regulations. **Banking Products**: fee based and fund based.

Unit-II

Types of relationship between banker and customer, **Bankers obligations to customers**: right of lein, set off, appropriation. Provisions of Negotiable Instrument Act, 1881. Bankers legal duty of disclosure and related matters, Customers' accounts with banks, Opening- operation, KYC norms and operation, Types of accounts and customers.

Unit-III

Core banking solutions: Debit, Credit, and Smart cards, EFD, RTGS International banking, Exchange rates, Documentary letter of credit, financing exporters and importers, ECGC policies and guarantees. Introduction to Insurance, Regulatory body of insurance.

Unit-IV

Types of Insurance: life insurance, general insurance, health & medical insurance, property related insurance, liability insurance, reinsurance, Principles governing marketing of insurance products. Insurance regulation and role of IRDA.

S. No.	Author(s)	Title	Publisher
1	M.Y. Khan	Indian Banking System	Tata McGraw Hill
2	D.P. Goyal	Insurance services	Himalaya Publishing House

Course Code	MGT619
Course Title	Financial Statement Analysis
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives (CO)	The major objectives of financial statement analysis and reporting are to provide decision makers information about a business enterprise for assisting them in further decision-making.

Unit-I

Overview of Financial Statements: meaning, objectives, nature and limitations of financial statements, characteristics of financial statements, understanding the balance sheet and income statement as per revised schedule VI of Indian companies act.

Unit-II

Financial Analysis: meaning, types and methods of financial analysis, comparative statements, common size statements, trend analysis. **Financial Ratio Analysis**: return on investment ratios, liquidity ratios, profitability ratios, activity ratios, financial leverage ratios, ratios for shareholders.

Unit-III

Working Capital Analysis: meaning and types of working capital, factors affecting working capital, sources of financing working capital, analyzing working capital through fund flow statement, preparation of fund flow statements—uses and significance. Receivables Management Analysis: optimum credit policy, a cost benefit analysis, credit terms, collection policy and procedures.

Unit-IV

Cash Flow Analysis: preparing a statement of cash flow, calculating cash flow from operating activities, cash flow from investing activities, cash flow from financing activities, analyzing the statement of cash flows, difference between fund flow statement and cash flow statements.

S. No.	Author(s)	Title	Publisher
1	Martin S. Fridson	Financial Statement Analysis	Willey Finance
2	D.K Goel	Analysis of Financial Statement	Arya Publications

Course Code	MGT621
Course Title	Global Financial Markets and Institutions
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives (CO)	Its aim is to provide knowledge about the flow of funds from the households (savers) to business firms (investors) to aid in wealth creation and development of both the parties.

Unit-I

Introduction to International Financial System: Bretton Wood conference, European monetary system, fixed vs. floating exchange rate regimes, international economic institutions, IMF, World Bank and WTO.

Unit-II

Creation of Euro Currency Markets: Creation of Euro Dollar, Emergence of Global Currency Markets, Size and Structure of Europe and Asian Markets, Transaction, Regulatory systems, Major instruments.

Unit-III

International Financial Markets and Instruments: international capital and money market instruments and their salient features, Integration of financial markets and approach, Arbitrage opportunities, Role of financial intermediaries.

Unit-IV

International Money Market Instruments and Institutions: GDRs, ADRs, IDRs, Euro Bonds, Euro Loans, Repos, CPs, derivatives, floating rate instruments, loan syndication and Euro deposits, IMF, IBRD, Development Banks.

Sr. No.	Authors	Title	Publisher
1	Buckley, Adrian	Multinational Finance	Prentice Hall of India
2	Maurice, Levi	International Finance	McGraw Hill, Int.

Course Code	MGT623
Course Title	Social Security and Labor Welfare
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Graduation in nay stream.
Course Objectives	To familiarize the students with the understanding and provisions of
(CO)	industrial and labour related social security laws.

Unit-I

I.L.O and social Security: the concept of labour welfare, definition, scope and objectives, welfare work and social work, evolution of labour welfare, classification of welfare work, agencies for welfare work, labour administration, agencies for administrating labour welfare laws in India.

Unit-II

Employees State Insurance Act, 1948: objectives and applicability of the scheme, personal injury, factory, manufacturing process, wages, medical benefit council, contributions, adjudication of dispute and claims, benefits. Factories Act, 1948: definitions, authorities under the factories act, working hours of adults, employment of young persons, annual leave with wages, penalties and procedure.

Unit-III

Payment of Gratuity Act, 1972: applicability and non-applicability of the act, payment of gratuity, recovery of gratuity, penalties. Employee's Compensation Act, 1923: definitions, dependent, employer, partial and total disablement, workmen, injury, accident; employer's liability for compensation, amount of compensation, contracting, commissioner, equal remuneration act, 1976.

Unit-IV

The Employees Provident Fund & Miscellaneous Provisions Act, 1952: definitions, schemes under the act, Employees' provident fund scheme, Employees' pension scheme, 1995, Employees' deposit linked insurance scheme, Minimum Wages Act, 1948, Payment of Bonus Act, 1965, Maternity Benefit Act, 1961, Industrial Dispute Act 1947.

Sr. No.	Authors	Title	Publisher
1	Srivastava, S.C	Industrial Relations &Labour Laws	Vikas Publishing House (P) Ltd
2	Sharma, J.P	Simplified Approach to Labour Laws	Bharat Law House (P) Ltd., New Delhi.

Course Code	MGT625
Course Title	Training and Development
Type of Course	DSE
LTP	4 0 0
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives (CO)	To create understanding among students for need, importance and implementation of training so as to achieve employee development.

Unit-I

Introduction to Training Concept: definition, meaning, need for training, importance of training, objectives of training, training and development, overview of training functions, types of training. **Process of Training:** steps in training, identification of job competencies, criteria for identifying training needs, assessment of training needs.

Unit-II

Needs Assessment: concept, objectives, methods and process. training & development centers, role of external agency in training and development, training for change, resistance in training. **Learning:** principles of learning, theories of learning, reinforcement theory, social learning theory, resistance to training.

Unit-III

Designing and Implementing a Training Program: trainer identification, methods and techniques of training, designing a training module (Cross Cultural, 69 Leadership, Training The Trainer, Change). Management Development Program, Budgeting of training.

Unit-IV

Evaluation of Training Program: Kirkpatrick model of evaluation, CIRO Model, cost-benefit analysis, ROI of training, emerging issues in training and development in India, Evolving training policy.

S. No.	Author(s)	Title	Publisher
1	Jack J. Phillips	Hand book of Training Evaluation	Routledge.
		and Measurement Methods	
2	Dayal,I	Manpower Training in organizations	Prentice Hall of India, New
			Delhi

Course Code	MGT627	
Course Title	Negotiation and Counseling for Managers	
Type of course	DSE	
LTP	400	
Credits	4	
Course prerequisite	Graduation in any stream.	
Course Objectives	The objective of this course is to help students to develop their skills in	
(CO)	negotiation, social skills and counseling.	

Unit-I

Negotiation: negotiation meaning, Scope, types and styles of negotiation, negotiation process, strategies and tactics, win-win negotiation, Role of trust in negotiations. **Collective Bargaining**: importance, forms, process of negotiation and recent trends in collective bargaining.

Unit-II

Negotiation and IT: ethics in negotiation, cultural differences in negotiation styles, gender in negotiations, context of mediation, **Negotiation as Persuasion**: principles of persuasion, persuasion Strategy, seeking and resisting compliance, effective persuasion.

Unit-III

Introduction to Counseling: historical evolution, counseling, psychotherapy and instruction, approaches to counseling, psychoanalysis, behaviorism and humanism, goals and process of counseling, counseling, procedures and skills.

Unit-IV

Organizational Application of Counseling Skills: changing behaviors through counseling, specific techniques of counseling, role conflicts of managers and counseling, application of counseling in specific organizational situations, dealing with problem subordinates, Ethics in Counseling.

S.no	Author(s)	Title	Publisher
1	Kottler, J. A., & Shepard, D. S.	Introduction to	USA: Cengage
	(2008).	counselling: voices from	Learning
		the field	
2	Singh, K. (2009).	Counselling skills for	New Delhi:
		managers	Prentice Hall of
			India.

Course Code	MGT629
Course Title	Competency Mapping
Type of Course	DSE
LTP	4 0 0
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives	It enables the student to understand how the business becomes more efficient,
(CO)	effective and competitive. It embeds the set of competencies like Innovations,
	technical expertise, quality and customer oriented aspects in student.

Unit-I

Introduction: Concept and definition of competency, characteristics of competency, core competency versus competence, performance versus competency, skills versus competency, behavior indicators, types of competencies, generic/specific, threshold/performance, and differentiating and technical, managerial and human, competency method in HRM,

Unit-II

Competency Framework: development of personal competency framework, Lancaster Model of managerial competencies, Competency Modeling: developing a competency model, Stages in design and implementation of competency model, validation of the competency model after data gathering. Introduction to Industrial Relations: The Concept Industrial Relations, The Dynamic Context of Industrial Relations, Interactions and Outcomes in Industrial Relations. Discipline and Grievance Management: forms and handling of misconduct. Collective Bargaining: concepts, features and principles of CB.

Unit-III

Competency Mapping: meaning, purpose and benefits, Competency mapping at different levels – Corporate companies/institutions, Methods of Competency Mapping: assessment Centre, critical incident techniques, questionnaire method, psychometric tests. Team Competencies (project driven), Role competencies (Role wise); Competency identification Consolidation of checklist, Rank Order and finalization, Validation, and Benchmark; Competency assessment - 360 degrees.

Unit-IV

Using competency maps for Competency profiling: job competency profiling, role competency profiling, functional competency profiling, core competency profiling. Competency based selection, Competency based interviews, Competency based performance management, Competency driven careers, and Competency linked remuneration, Competency driven culture. Career Development: various methods of career development.

S. No.	Author(s)	Title	Publisher
1	McClelland,David	Competency at Work,	SpencerandSpencer,1993
2	Shermon,Ganesh.,	Competency based HRM	TataMcGrawHill

Course Code	MGT631
Course Title	International Business Environment
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives	The course helps the student to understand the complex environment in
(CO)	which MNC's work. It teaches them in detail about the foundations of
	international business.

Unit-I

Globalization: concept, objectives and features, effect of globalization and its drivers, modes of entry for corporations into international business. **The globalization debate:** arguments for and against, differences between domestic and international business. **Multinational Corporations:** definition and types of MNCs.

Unit-II

Introduction to International Trade theory: theory of Mercantilism, absolute advantage, comparative advantage, Hecksher-Ohlin theory, the new product life cycle theory, the new trade theory, Porter's diamond model. **Instruments of International trade policy:** tariffs, subsidies, local content requirements, and administrative policies, anti dumping policies, political and economic arguments for intervention. **International trade bodies:** GATT, WTO, IPR, TRIPS, TRIMS, GATS. Introduction to current EXIM policy of India, International Regulatory and Dispute Settlement Mechanisms.

Unit-III

International Financial Market Instruments: equity, debt, foreign exchange and commodities. World Bank and International Monetary System: international financial risks of trade payments, methods of payment in international trade, foreign investments (FDI and FII), currency fluctuations. Introduction to Foreign Exchange Market: functions, nature, trading, rate determination, currency convertibility, movement of international workforce (Expatriation, Repatriation).

Unit-IV

Trading Block: EU, NAFTA, SAARC, ANDEAN PACT, MERCOSUR, ASEAN, APEC. Country Risk Analysis: how to assess Political, Social and Economic risks. International Marketing: localization and globalization.

S. No.	Author(s)	Title	Publisher
1	Daniels, J. Radebaugh, L. and	International Business	Pearson Education
	Sullivan		
2	Daniels, J.D., Radebaugh L.H.,	International	Pearson Education
	Sullivan D.P. and Salwan	Business:	
		Environments and	
		Operations	

MGT633
Foreign Trade Documentation and Trade Finance
DSE
400
4
Graduation in any stream.
The course aims at providing and understanding of developing a systematic approach in handling foreign trade transactions and the paper work thereto.

Unit-I

Documents for starting up a new export venture: aligned documentation system, meaning, rationale, various documents, EDI initiative. **Methods of payment:** advance payment, open account, consignment sales, and documents against acceptance (D/A), documents against payment (D/P), Letter of credit, **Pre shipment credit**: meaning, procedure, rates, documents needed. **Post shipment credit**: meaning, procedure, types and documents needed.

Unit-II

Export credit and guarantee corporation (ECGC): export credit insurance, insurance policies, FEMA, bank guarantees and special schemes, role of ECGC, theories and practice of foreign exchange rate determination, floating and fixed exchange rates, exchange control regulations and procedures in India.

Unit-III

Processing of an export order: stages in implementing export transaction, procedure and documents needed for claim. **Procedures and documents related to quality control**: ISO 9000, ISO 14000. **Marine insurance**: types of marine insurance, marine losses.

Unit-IV

Customs and port clearance: import procedures and documents, Inco terms, EXW – Ex Works (2000 and 2010), FCA - Free Carrier, FAS - Free Alongside Ship, FOB - Free On Board, CFR - Cost and Freight, CIF, Cost, Insurance, Freight, CIP - Carriage and Insurance Paid.

S. No.	Author(s)	Title	Publisher
1	Johnson, T. E, and Donna	Export/import Procedures and	New York: Amacom,
	L. B.	Documentation	Latest Edition
2	Malhotra, S. K.	Export and Import	Adhyan Publishers
		Management	and Distributors

Course Code	MGT635
Course Title	Global Marketing Management
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Graduation in any stream
Course Objectives (CO)	This course aims to acquaint the students with global marketing environment and to build understanding of principles of international marketing.

Unit-I

Understanding the global marketing environment: meaning of global marketing, changes in the global marketing environment, organizing of global marketing, The global marketing environment: political, legal, socio-cultural, technical, economic.

Unit-II

Market planning and development: global marketing strategies, corruption in global markets, opportunity analysis and selection of markets, market entry strategies, competitive advantage, product and brand management, global services marketing, global communications.

Unit-III

Global marketing distribution: relationship and pricing, approach to manage supply chains, factors affecting supply chain decisions, collaboration of supply chain, market responsive supply chain strategies, managing marketing relationships. **Pricing Decisions**: pricing strategies and factors affecting global pricing decisions.

Unit-IV

Coordinating global marketing operations, Sales force management, International sales management decisions, Sales negotiation and culture, Role of trading, Global control mechanisms, Issues in global organizational structures.

S. No.	Author(s)	Title	Publisher
1	Lee, K. and Carter, S.	Global Marketing	Oxford
		Management	
2	Warren J. Keegan	Global Marketing	PEARSON
	_	Management	

Course Code	MGT637
Course Title	Global Strategic Management
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives (CO)	To explain the evolution of international business and strategy to enable the students to analyze the important factors in strategic international environment.

Unit-I

Introduction to Global Strategic Management: concept objectives and need for global strategy, role of globalization, impact of globalization on developing countries, managing competition in global markets, Porters Five Force Framework in Global Business, role and application of generic strategies in global business, strategic resource management, value chain analysis in global business, VIRO Framework, strategic role of cultures and sub cultures, strategic role of ethics, strategic response framework.

Unit-II

Concept of International Entrepreneurship: comprehensive model of entrepreneurship, entry barriers for firms going global, entrepreneurial strategies, comprehensive model of foreign market entries. Trading Mode: Distinguishing features of trading mode, passive participation mode. active or direct participation mode, risk associated in going global, IJV, Strategic alliances, major strategic issues in international mergers and acquisitions (M and A), rules of success of M and A.

Unit-III

International competitiveness: competitive scope, diversification and concentration strategies for international competitive advantage, types of diversification, comprehensive model of diversification, multinational strategies and structures, comprehensive model of multinational strategy, relationship between multinational strategies and structures application, Strategic innovation and knowledge management in global business.

Unit-IV

Concept of Global Corporate and Social Responsibility: comprehensive model of corporate social responsibility, corporate sustainable development, need of CSR activities, role of CSR in sustainable development, concept of private equity, corporate governance at global level, concept of family business going global.

S. No.	Author(s)	Title	Publisher
1	Ketelhihn, E. W	International Business	Oxford: Butterworth
		Strategy	Heinemann
2	Mellahi, K., Jedrzej G. F. and Paul	Global Strategic	Oxford: Oxford
	N. F.	Management	University Press,
			Latest Edition

Course Code	CSA609
Course Title	Cloud Computing
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Computer Networks, Database Management System
Course Outcomes (CO)	To impart fundamental concepts in the area of cloud computing. To impart knowledge in applications of cloud computing

Unit - I

Overview of Cloud Computing - Introduction, Definition of cloud, Definition of cloud, characteristics Of cloud, Why use clouds, How clouds are changing, Driving factors towards cloud, Comparing grid with cloud and other computing systems, workload pattern for the cloud, "Big Data", IT as a service.

Unit - II

Cloud computing concepts- Concepts of cloud computing, Cloud computing leverages the Internet, Positioning cloud to a grid infrastructure, Elasticity and scalability, Virtualization, Characteristics of virtualization, Benefits of virtualization, Virtualization in cloud computing, Hypervisors, Multi tenancy, Types of tenancy, Application programming interfaces (API).

Management - Desktops in the Cloud, Security, Cloud service delivery: Cloud service, Cloud service model architectures, Infrastructure as a service(IaaS) architecture, Infrastructure as a service(IaaS) details, Platform as a service(PaaS) architecture, Platform As a service (PaaS) details, Platform as a service (PaaS), Examples of PaaS software,

Unit - III

Cloud deployment scenarios - Cloud deployment models, Public clouds, Hybrid clouds, Community, Virtual private clouds, Vertical and special purpose, Migration paths for cloud, Selection criteria for Cloud deployment.

Security in Cloud computing: Cloud security reference model, security integration, security risks,

Unit - IV

Cloud Computing platforms - IBM Smart Cloud, Amazon Web Services, Google Cloud platform, Windows Azure platform, A comparison of Cloud Computing Platforms, Common building Blocks. Integration of cloud computing with mobile and ad-hoc network technologies.

Sr.	Author(s)	Title	Publisher
no.			
1	Raj Kumar Buyya,	CloudComputing: Principles	Wiley
	James Broberg,	and	-
		Paradigms	
2	AnthonyT.Velte,TobyJ.	Cloud Computing: A practical	McGraw Hill
	VelteandRobertElsenpe	Approach,	
	ter		

Course Code	CSA611
Course Title	Software Quality Assurance
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Concepts of Software Engineering
Course Outcome (CO)	Learning about testing techniques and how to attain the
	quality

Unit - I

Overview: Software Engineering introduction, software development models. Testing and its concepts: significance and potentials

Testability and features of test cases.

Unit - II

Software Testing Techniques: White box testing, Black Box Testing, Static analysis, symbolic testing, program mutation testing, functional program testing, regression testing, data flow testing.

Software Testing Stratgies: Approach, issue, integration, incremental, system, alpha, beta testing.

Unit - III

Comparative evaluation of techniques: testing tools, dynamic analysis tools, test data generators, debugger and test drivers.

Technical Metrices for Software: Quality factors, framework, metrices for analysis, design, testing source code

Unit - IV

Quality Assurance: Concepts, importance and essence, FTR, structured walk through technique, Software reliability, validation, safety and hazard analysis, feature affecting quality of software, SQA plan

Quality Models: ISO 9000, SEI CMM and their relevance, COCOMO

Sr. no.	Author(S)	Title	Publisher
1	RawaneMadi	Learnig Software Testing with Test Studio	Shroff and Pactt
2	James A. Whittaker	Exploratory Software Testing: Tips, Tricks, Tours and Techniques to guide Test Design	Addison Wesley

Course Code	613
Course Title	Big Data Analysis
Type of Course	DSE
LTP	400
Credits	4
Course pre-requisites	Basic knowledge of computer system
Course objectives(CO)	This course will provide knowledge about contents of
	big data.

Unit - I

Hours Grasping the Fundamentals of Big Data: The Evolution of Data Management - Understanding the Waves of Managing Data - Defining Big Data - Building a Successful Big Data Management Architecture - The Big Data Journey. **Examining Big Data Types:** Defining Structured Data - Defining Unstructured Data - Looking at Real-Time and Non-Real-Time Requirements - Putting Big Data Together.

Unit - II

Digging into Big Data Technology Components: Exploring the Big Data Stack- Layer 0: Redundant Physical Infrastructure- Layer 1: Security Infrastructure- Interfaces and Feeds to and from Applications and the Internet- Layer 2: Operational Databases- Layer 3: Organizing Data Services and Tools -Layer 4: Analytical Data Warehouses -Big Data Analytics -Big Data Applications.

Unit - III

Hours Virtualization and How It Supports Distributed Computing: Understanding the Basics of Virtualization Managing Virtualization with the Hypervisor- Abstraction and Virtualization Implementing Virtualization to Work with Big Data.

Unit - IV

Map Reduce Fundamentals: Tracing the Origins of Map Reduce -Understanding the map Function- Adding the reduce Function -Putting map and reduce Together -Optimizing Map Reduce Tasks. **Exploring the World of Hadoop:** Explaining Hadoop -Understanding the Hadoop Distributed File System (HDFS)- Hadoop Map Reduce

Sr. no.	Author(s)	Title	Publisher
1	Judith Hurwitz, Alan Nugent, Dr. Fern Halper	Big Data for Dummies	John Wiley & Sons
2	Bill Franks	Taming the Big Data Tidal Wave: Finding Opportunities in Huge Data Streams with Advanced Analytics	John Wiley & sons

Course Code	CSA615	
Course Title	Data Warehousing and Data Mining	
Type of Course	DSE	
LTP	400	
Credits	4	
Course Prerequisites	Analysis of advanced aspect of data warehousing and data mining	
Course Outcomes (CO)	Data Mining studies algorithms and computational paradigms that allow computers to find patterns and Core ities in databases, perform prediction and forecasting, and generally improve their performance through interaction with data. It is currently regarded as the key element of a more general process called Knowledge	

Unit - I

Review of Data Warehouse: Need for data warehouse, Big data, Data Pre-Processing, Three tier architecture; MDDM and its schemas, Introduction to Spatial Data warehouse, Architecture of Spatial Systems, Spatial: Objects, data types, reference systems; Topological Relationships, Conceptual Models for Spatial Data, Implementation Models for Spatial Data, Spatial Levels, Hierarchies and Measures Spatial Fact Relationships.

Unit - II

Introduction to temporal Data warehouse: General Concepts, Temporality Data Types, Synchronization and Relationships, Temporal Extension of the Multi Dimensional Model, Temporal Support for Levels, Temporal Hierarchies, Fact Relationships, Measures, Conceptual Models for Temporal Data Warehouses: Logical Representation and Temporal Granularity

Unit - III

Introduction to Data Mining functionalities, Mining different kind of data, Pattern/Context based Data Mining, Bayesian Classification: Bayes theorem, Bayesian belief networks Naive Bayesian classification, Introduction to classification by Back propagation and its algorithm, Other classification methods: k-Nearest Neighbor, case based reasoning, Genetic algorithms, rough set approach, Fuzzy set approach

Unit - IV

Introduction to prediction: linear and multiple regression, Clustering: types of data in cluster analysis: interval scaled variables, Binary variables, Nominal, ordinal, and Ratio-scaled variables; Major Clustering Methods: Partitioning Methods: K-Mean and K-Mediods, Hierarchal methods: Agglomerative, Density based methods: DBSCAN

S. No.	Author(s)	Title	Publisher
1	J.Han and M. Kamber	Data Mining: Concepts and Techniques	Morgan Kaufmann Publishers
2	Elzbieta Malinowski	Advanced Data warehouse Design	Pearson

Course Code	MGT602
Course Title	Strategic Management and Business Policy
Type of Course	Core
LTP	400
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives (CO)	To help the students to learn the process of strategic decision making,
	implementation and evaluation of corporate policies.

Unit-I

Understanding Strategy and Strategic Management: concept, objectives, strategic management process. Strategic Decision Making, Levels of Strategy. The Secret of Success of Successful Companies (Mc kinsey's 7 model), **Defining Strategic Intent:** vision, mission, goals and objective, designing and evaluating a mission statement.

Unit-II

External Environment Analysis: strategically relevant components of external environment. **Industry Analysis**: Porter's five forces model, strategic group mapping, industry driving forces, key success factors. external factor evaluation matrix. **Internal Environment Analysis**: resource based view of an organization, VRIO framework, value chain analysis, competitive advantage and core competency, internal factor evaluation matrix.

Unit-III

Environmental Scanning Techniques, ETOP and SWOT Analysis Business Level Strategies, Porter's Framework of Competitive Strategies: Cost Leadership, Differentiation and Focused Strategies. Corporate Level Strategies, Growth Strategies, Horizontal and Vertical Integration, Strategic Outsourcing, Related and Un-related Diversification International Entry Options, Harvesting and Retrenchment Strategies.

Unit-IV

Portfolio Strategies, BCG Model, G E Business Planning Matrix, Shell's Directional Policy Matrix, Product Life Cycle Matrix, Strategy Implementation, Structure Fit, Developing and Modifying Organizational Structure, Leadership and Organization Culture, Corporate Governance and Social Responsibilities of Business. **Strategy Evaluation and Control**: nature of strategy evaluation, strategy evaluation framework. The Balanced Score Card.

S. No.	Author(s)	Title	Publisher
1	Wheelen, Thomas	Concepts in Strategic	Pearson Education, India
	L., Hunger david J.	Management and Business Policy	
2	Azhar Kazmi	Strategic Business Management	Tata Mc Graw

Course Code	MGT604
Course Title	Corporate Law
Type of Course	Core
LTP	400
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives	The objective of the course is to familiarize the students with the nature of
(CO)	legal regulatory environment of corporate enterprises in India.

Unit-I

Law of Contract: definition and nature of contract, offer and acceptance, consideration, capacity of parties, free consent, legality of object, contingent contracts, performance and discharge of contract, quasi contract, remedies for breach of contract.

Unit-II

Sale of Goods Act: meaning, formation of contract, meaning of condition and warranties. difference between transfer of property and possession, right of an unpaid seller.

Unit-III

Company Law I: incorporation of companies memorandum of association and articles of association membership of a company prospectus, issue of capital, loans, investments, deposits and charges, meetings.

Unit-IV

Company Law II: accounts and auditors, amalgamation, reconstructions, arrangements and compromises provision with respect to appointment and removal of director, meeting and winding up by court. **Negotiable Instrument**: bills of exchange, promissory note, cheque and rules regarding the crossing of cheque, dishonor of cheque and liability of banker and drawer.

S. No.	Author(s)	Title	Publisher
1	Singh Avtar	Company Law	Easter Book Co.
2	Chawla, Garg and Sareen	Mercantile Law	Kalyani Publishers

Course Code	MGT612
Course Title	International Marketing
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives (CO)	To familiarize the students with the concept and issues of international marketing and enable them to be able to analyze the foreign market environment and develop international marketing strategies for a business firm.

Unit-I

Introduction to International Marketing:, nature, importance, and scope of international marketing, international market-orientation and involvement, international marketing management process, international marketing information system. **International Marketing Environment:** influence of physical, economic, socio-cultural, political and legal environments on international marketing decisions. Global trading environment and developments, International Market Segmentation.

Unit-II

International market entry strategies: exporting, licensing, contract manufacturing, joint venture, setting-up of wholly owned subsidiaries aboard. International Product Planning and Pricing decisions: major product decisions-product design, labeling, packaging, branding and product support services, managing product line, international trade product life cycle; new product development.

Unit-III

Pricing decisions for International Markets: factors affecting international price determination, international pricing process and policies, delivery terms and currency for export price quotations, transfer pricing, pricing in the context of counter trade.

Unit-IV

International Promotion Strategies: communications across countries, complexities and issues, country- of-origin effect, international promotion tools and planning, advertising, personal selling, publicity, and sales promotion. International public relations, Developing international promotion campaign.

S. No.	Author(s)	Title	Publisher
1	Keegan, Warran J. and	Global Marketing	Pearson.
	Mark C. Green		
2	Cateora, Phillip R.	International Marketing	Tata McGraw Hill.
	;Grahm, John L. and		
	Prashant Salwan		

Course Code	MGT614
Course Title	Retail Marketing
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Graduation in any stream
Course Objectives (CO)	The prime objective of the subject to give in-depth understanding of all aspects of retail business.

Unit-I

Introduction to Retailing: nature and scope of retailing, types of retail formats. **Retail Franchising**: Concept, types, advantages and disadvantages. **Retail Locations**: types of retail locations, steps involved in choosing a retail location, methods of evaluating a Trading area. **Retail Merchandising**: concept of merchandising, planning merchandising assortments.

Unit-II

Servicing the Retail Customer: concept of customer service, importance of service in retail, customer service as a part of retail strategy, retail store design and visual merchandising. importance of store design, exterior store design, interior store design, visual merchandising. Supply Chain Management: concept of supply chain management with reference to retailing, supply chain integration.

Unit-III

Financial Management Issues in Retail: the strategic profit model, the profit path. **Store operations**: size & place allocation, store maintenance, inventory management in retail, FDI in retailing.

Unit-IV

Retailing Strategy: target market and retail planning process, financial strategy. Retail Locations and Site Selection: location opportunities, factors affecting the site selection, estimating demand for a new location. Human Resource Management in Retailing: gaining competitive advantage through HRM, designing retail organization structure, motivating retail employees.

S. No.	Author(s)	Title	Publisher
1.	Berman & Evans	Retailing Management	Practice Hall
2.	Levy & Wertz	Retailing Management	Pearsons

Course Code	MGT616
Course Title	Services Marketing
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives (CO)	This course aims at creating understanding among the students to apply service marketing concepts and strategies to create customer value in today's highly competitive environment.

Unit-I

Introduction to Services: concept, objectives, process and impacts of services management, growth of service sector economy, service characteristics, service classification, service marketing mix, service blue print.

Unit-II

Service consumer behavior, Decision making perspective, Element of risk in services buying, Service decision process, Service strategy, **Anatomy of a service exchange**: encounter types, customer and staff, customer and system, customer and environment, customer and customer.

Unit-III

Consumer Behavior in Services: customer expectation of service, customer perceptions of service. customer satisfaction and service quality, e-service quality dimensions for influencing customer perceptions.

Unit-IV

Managing productivity and differentiation in services organizations: demand supply management, advertising, branding and packaging of services, service recovery management, application of services marketing and case studies.

S. No.	Author(s)	Title	Publisher
1.	Adrian Paye	The Essence of Services	Prentice Hall India
		Marketing	
2.	Sanjay P. Palankar	Services Marketing	Himalaya Publishing
			House

Course Code	MGT618
Course Title	Marketing Research
Type of course	DSE
LTP	4 0 0
Credits	4
Course prerequisite	Graduation in any stream.
Course Objectives (CO)	The objective of the syllabus is to define the role of marketing research in decision making and to explain in detail each of the principles steps in research design.

Unit-I

Marketing Research: definition, scope, significance, limitations, and obstacles in acceptance. ethics in marketing research. marketing intelligence system, research process, Various sources of market Information: methods of collecting market information, primary data, secondary data sources.

Unit-II

Marketing research techniques: market development research, Cool hunting, socio cultural trends, demand estimation research, test marketing, segmentation research, cluster analysis, discriminate analysis. Sales forecasting: objective and subjective methods. Marketing Mix Research: concept testing, brand Equity research, brand name testing, commercial eye tracking, package designs, conjoint analysis.

Unit-III

Advertising Research: copy testing, readership surveys and viewer ship surveys, ad tracking, viral marketing research. Marketing effectiveness and Analytics Research: customer satisfaction measurement, mystery shopping, market and sales analysis, exploratory designs, descriptive designs, longitudinal and cross-sectional analysis.

Unit-IV

Qualitative research techniques Based on Questioning: focus groups, depth interviews, projective techniques. Based on observations: ethnography, grounded theory, participant observation. Causal research: basic experimental designs, internal and external validity of experiments. Primary data: questionnaire design, administration and analysis considerations in design, attitude measurement, scaling techniques, observation method of primary data collection. Web based primary data collection: issues of reach, analysis, accuracy, time and efficiency.

S.No.	Author(S)	Title	Publisher
1	Scott Smith and Gerald Albaum	Fundamentals in Marketing Research	Tata McGraw Hill
2	Rajendra Nargundkar (Author)	Marketing Research	Mittal Readings India

Course Code	MGT620
Course Title	Digital Marketing
Type of course	DSE
LTP	400
Credits	4
Course prerequisite	Graduation in any stream
Course Objectives (CO)	This course aims to familiarize students to create strategic and targeted online campaigns. Understand innovative insights of digital marketing to have a competitive edge.

Unit-I

Digital marketing: an introduction, principles of digital marketing, fundamentals of digital marketing, evolution of digital marketing. **Rise of the internet**: the dotcom era, **Digital Marketing**: the new wave of marketing. **Digital marketing channels**: types and business models, digital marketing applications and benefits.

Unit-II

Digital marketing framework, Market opportunity analysis and digital services development, ASCOR, Digital marketing Framework, Application of digital marketing, Digital marketing strategy development, marketing mix analysis, copy writing in digital marketing.

Unit-III

Web Marketing: website, levels of websites, difference between blogs, portal and website, Search Engine Optimization (SEO), Social Media Optimization (SMO), E-Mail Marketing, Mobile Marketing.

Unit-IV

Mobile Marketing: introduction and concept, process of mobile marketing, goals, setup, monitor, analysis of mobile marketing. **Introduction to SEM Web Analysis**: Google analytics & data collection for web analytics, multichannel attribution, universal analytics, tracking code trends in digital advertising.

Sr No	Author(S)	Title	Publisher
1.	Damian Ryan	Digital Marketing	Kogan Page
2.	Dave Chaffey	E- Marketing Concepts	Pearson

Course Code	MGT622
Course Title	International Finance
Type of Course	DSE
LTP	4 0 0
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives (CO)	The objective of this course is to highlight opportunities and challenges
	of financial management in open economies.

Unit-I

Foundations of International Finance: concept, goals of international finance, and role of international finance manager in an MNC, globalization of world economy, recent trends. Evolution of International Monetary System: Classical gold standard, Bretton woods system. Current Exchange Rate arrangements European Monetary System, Balance of Payments (BOP) Accounting: the current account, the Capital Account, official reserve account. Foreign Direct Investment (FDI) and Multinational Corporations.

Unit-II

Currency Country Risk Analysis: country risk analysis, measuring & managing political risk, firm specific risks, country risk analysis, study of economic & political factors posing risk, country risk analysis in international banking. Measuring & Managing Various Exposures: alternative measures of foreign exchange exposure, measuring & managing transaction exposure, measuring & managing translation exposure.

Unit-III

Currency Forecasting: Interest Rate Parity Theory, The Relationship between Forward and future Spot Rate, Foreign Exchange Instruments, Recent Developments in Derivatives Markets in India, Currency Futures & Options Market, Interest Rate & Currency Swaps, Interest Rate Forwards & Futures.

Unit-IV

Financial management of multinational firms: foreign direct investment and cross-border acquisitions, international capital structure and the cost of capital, international capital budgeting, multinational working capital policy and cash management, exports and imports, international tax environment, corporate governance around the world.

S. No.	Author(s)	Title	Publisher
1	Shapiro Allan C	Multinational Financial	Wiley and Sons, Singapore.
		Management	
2	Apte P.G.	International Financial	Tata McGraw Hill, India
		Management	

Course Code	MGT624
Course Title	Security Analysis and Portfolio Management
Type of Course	DSE
LTP	4 0 0
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives (CO)	This course aims at providing the students a comprehensive introduction to the areas of security analysis and portfolio management.

Unit-I

Introduction to Investment: concept of investment, speculation and gambling, investment avenues, types of investors, investment objectives, investment process. Security Analysis: meaning of security, types of securities, security analysis, risk and return, computation of return, Types of Risk: (Systematic risk, Market risk, Purchasing power risk, Interest rate risk, Unsystematic risk, Business risk (Internal, External), Financial risk), risk measurement.

Unit-II

Fundamental Analysis: concept, economic factors & significance of economic analysis, Industry Analysis: need for industry analysis, alternative classification of industry, industry life cycle analysis, SWOT analysis for industries. Technical Analysis: different techniques of analysis, Dow Theory, volume indicators, market sentiment indicators, confidence indicators, points & figure charting, bar charting.

Unit-III

Capital Market Theory: CAPM, assumptions, CAPM Model, Capital Market Line (CML), Security Market Line (SML). Arbitrage Pricing Theory: (APT), assumptions, APT model, AP equation, comparison between, APT and CAPM.

Unit-IV

Portfolio Management: meaning, importance and approaches of portfolio management. portfolio analysis, portfolio evaluation and revision techniques. **Derivatives**: introduction, future contracts, forward contracts, option contracts.

S. No.	Author(s)	Title	Publisher
1	Fischer & Jordan	Security Analysis and	Prentice Hall India
		Portfolio Management	
2	Punithavathy Pandian	Investment Analysis	Vikas Publishing House
	•	-	Pvt. Ltd

Course Code	MGT626
Course Title	Management Control System
Type of course	DSE
LTP	400
Credits	4
Course prerequisite	Graduation in any stream.
Course Objectives	Orienting students with the various concepts in finance, financial tools &
(CO)	techniques so as to make them aware of Managerial Control System.

Unit-I

Introduction to Management Control Systems: evolution of control systems in an organization, management control and operational control. Strategic Planning: understanding the concept of strategy, business level and corporate strategy. Goals: hierarchy of goals, factors that affect goal congruence. Formal and Informal systems, types of organization structure, functions of the controller.

Unit-II

Responsibility Centers, types of responsibility centers, expense centers, profit centers, research and development centers, marketing centers and investment centers, measures used to evaluate their performances (ROI, ROA, MVA, EVA). **Budgetary Control:** as a control tool, revision of budgets, capital budgeting.

Unit-III

Transfer Pricing: objectives and need of transfer pricing, methods of transfer pricing (Cost Based, Market price based, Two steps, Dual price, Profit sharing). **Audit Function:** as a control, financial audit, internal audit, cost audit, management audit.

Unit-IV

Management Compensation: characteristics of incentives compensation plans, incentives for corporate officers and business unit managers. Service Organizations: professional service organizations, financial service organizations.

S.No.	Author(S)	Title	Publisher
1	Anthony and	Management Control	Tata McGraw Hill
	Govindrajan	Systems	Education
2	Khan & Jain	Management Accounting	Tata McGraw Hill Education

Course Code	MGT628
Course Title	Indian Taxation System
Type of course	DSE
LTP	4 0 0
Credits	4
Course prerequisite	Graduation in any stream.
Course Objectives (CO)	The objective of this course is to provide basic essential knowledge of various concepts of Direct Taxation, Indirect Taxation and Tax planning to the Students

Unit-I

Introduction to taxation: concept, types Indian taxation system, definitions of basic terms, **Heads of Income**: salaries, income from house property, income from business and profession.

Unit-II

Income from Capital Gain, Income from Other Sources . Exempted Incomes, Clubbing of Income, Set-off and Carry Forward of Business Loss, Deductions under section 80, Tax Code and its main features.

Unit-III

Concept of Tax Planning: meaning, importance, scope, basic concepts, tax planning vs. tax avoidance and tax evasion, methods of tax planning.

Unit-IV

Management of Indirect tax: basic concepts of central excise, classification of excisable goods, central excise procedures, basic concepts of customs duty, classification of customs duty. VAT and GST.

S.No.	Author(S)	Title	Publisher
1	AK Avasthi	Corporate Tax Planning &	Taxman, Publication
		Business Tax Procedures,	
2	E.A. Srinivas	Corporate Tax Planning	Tata McGraw Hill Publishing
			Co.

Course Code	MGT630
Course Title	Banking Management & Credit Analysis
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Graduation in nay stream.
Course Objectives (CO)	To introduce the Indian banking and financial system with view to expose the developments taking place in the banking industry.

Unit-I

Indian Financial System: concept of bank, characteristics and objectives. Central Banking Authority and Commercial Banks: roles and functions. financial intermediaries. Financial Market Structure: role and functions of capital market, money market, mutual funds. Insurance Companies: role and functions of SEBI and IRDA.

Unit-II

Functions of Banks: deposits types, concept of CASA, KYC, different deposit products. **Services Rendered by Banks**: opening of accounts for, minors, joint account holders, HUF, firms, companies, trusts, societies, govt. and public bodies etc.

Unit-III

Approach to Lending: credit distribution, principles of good lending, credit products & facilities, documentation, procedures and practices, working capital assessment. **Priority Sector Lending**: agriculture/SMEs/SHGs/SSI/tiny sector financing.

Unit-IV

Credit Analysis: concept, need and objectives of credit rating, credit appraisal techniques, CIBIL procedures. **Credit Rating Agencies**: Indian credit rating agencies, international credit rating agencies and procedure of rating the credit.

Sr. No.	Authors	Title	Publisher
1	M.Y.Khan	Indian Financial System	McGraw Hill Education
2	Preethi Singh	Dynamics of the Indian Financial system:	Ane Readings Private Ltd

Course Code	MGT632
Course Title	International Human Resource Management
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives (CO)	The objective of this course is to give students a complete exposure to
	all aspects of International HRM.

Unit-I

International HRM: concept, relevance and importance of IHRM. differences between domestic and international HRM, issues in global organizations, sustaining international business operations, approaches to staffing, transferring staff for international business activities and role of the corporate hr function, recruiting and selecting staff for international assignments.

Unit-II

Training and development: role of expatriate training, effective pre-departure training programme, effectiveness of pre departure training, developing staff through international assignments. **Compensation**: objectives of international compensation, key components of international compensation programme, approaches to international compensation.

Unit-III

HRM in host country context: standardization and adaptation of work practices, retaining, developing and retrenching staff. **Culture and IHRM**: concept of culture, cross cultural studies. Hofstede's Model of national culture. Re-entry and Career Issues, Human Resources Management in global organization, Ethics in international business, Western and Eastern management thoughts in the Indian context.

Unit-IV

Cross Cultural Communication: cultural variables affecting communication, managing cross-cultural communication. IHRM Trends and future challenges: international business ethics and HRM, research issues and theoretical developments in international HRM. GHRM in Selected Countries: America, Japan, China, Korea, Africa, Europe, India.

S. No.	Author(s)	Title	Publisher
1	Monir H. Tayeb	International Human	Oxford University Press.
		Resource Management	
2	Peter J. Dowling and	International Human	Thomson Publishers, New
	Denice E. Welch	Resource Management	Delhi.

Course Code	MGT634
Course Title	Applied Industrial Psychology
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives (CO)	To facilitate the student to understand the basics industrial
	behavior and work force diversity.

Unit-I

Introduction to Industrial Psychology: definitions, objectives and scope. Brief history of industrial and organizational psychology, Individual differences and their evaluation, Role of heredity and environment, Types of individual differences.

Unit-II

Major influences on Industrial Psychology: scientific management and Pig Iron experiment, human relations schools Hawthorne Experiments.

Unit-III

Psychological testing: utility, reliability and validity. **Attitudes**: meaning, measurement of attitude, techniques for improving attitude. Job Analysis, Working Environment, Industrial Accident and Safety, Fatigue, Boredom, Monotony, Time and Motion studies.

Unit-IV

Vocational selection and placement in Industry, Industrial conflict, Industrial absenteeism, Labour turnover, Mental health of organizations employees, Effective communication and organizational success. Stress in organization and its effect on performance.

S. No.	Author(s)	Title	Publisher
1	Aswathappa, K.	Human Resource	New Delhi: Tata McGraw
		Management	Hill.
2	Ghosh, P. K. &Ghorpade, M.B	Industrial	Himalaya Publications
		Psychology'	

Course Code	MGT636
Course Title	Organization Development
Type of Course	DSE
LTP	4 0 0
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives	This course helps to understand how to improve organizations and people in
(CO)	them through the use of theory and practice of planned change.

Unit-I

Introduction to Organization Development: concept and process, assumptions and values underlying Organization development. Organization Change: nature and levels of change, forces in change, resistance to change, planned change process, change agents. Foundations of Organization Development: models and theories of planned change, systems theory, teamwork, parallel learning structures, strategies for change. Managing OD Process: diagnosis, the six-box model, third wave consulting, action component and program management component.

Unit-II

Action Research: action research as a process and an approach, varieties and examples of action research in OD. **OD Interventions**: overview of interventions, factors determining choice of interventions, classification of interventions. **Team Interventions**: teams and work groups, team building interventions, techniques and exercises in team building.

Unit-III

Intergroup and Third Party Interventions: intergroup team building intervention, third party peacemaking intervention, organization mirror intervention, partnering. Comprehensive Interventions: future Search conferences, the confrontation meeting, strategic management activities, survey feedback, grid organization development, Schein's cultural analysis. Structural interventions: socio technical system, work redesign, management by objectives (MBO) quality of work life (OWL), quality circles (OC), total quality management(TQM), Reengineering.

Unit-IV

Issues in Consultant: client relationships, areas in consultant, client relationship, ethical standards in OD. **Power, Politics and OD**: concept, faces of power, sources of social power, tactics used in politics, role of power and politics in OD. **Future and OD**: trends in OD and challenges and future of OD in India.

S. No.	Author(s)	Title	Publisher
1	Wendell.L.French and Cecil	Organizational	Prentice-Hall of India
	H.Bell,Jr.	Development	
2		Organizational development	Pearson Education Inc

Course Code	MGT638
Course Title	Compensation and Reward Management
Type of Course	DSE
LTP	4 0 0
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives (CO)	The course is designed to promote understanding of issues related to designing, analysing and restructuring of compensation and reward
	systems in organization.

Unit-I

Compensation Management: introduction to compensation management, compensation and non-compensation dimensions, 3-P concept in compensation management, compensation as retention strategy, compensation for special groups. Significant Compensation Issues: grading and compensation structure, limitations of job related compensation, competency based compensation. (Broad pay bands and 360 degree feedback)

Unit-II

Compensation Strategy: new thinking for the new millennium, pay the person, reward excellence, individualizing the pay system, organizational and external factors affecting compensation strategies, compensation strategies as an integral part of HRM, compensation policies.

Unit-III

Wages and Salary Administration at Macro (National) Level: wage concept, wage policy, institutional mechanisms for wage determination, pay commission, wage boards, union role in wage and salary administration, incentive schemes. International Compensation: expatriate compensation and its objectives, elements of expatriate's compensation package, problems in compensation management.

Unit-IV

Rewards & Recognition: concept of reward management, developing reward policies, reward strategy, developing total reward approach, factors affecting reward management policies in service sector, process of designing a successful reward strategy.

S. No.	Author(s)	Title	Publisher
1	B.D.Singh	Compensation & reward	Excel Publishers
		management	
2	George, jerry, Ratnam	Compensation Mangement	SE publishers

Course code	640
Course Title	Leadership
Type of Course	DSE
LTP	4 0 0
Credit	4
Course pre-	Graduation in any stream
requisites	
Objective of Course	The course broadens students' knowledge and allowing them to
	understand how to use various biological traits to apply in leadership
	styles.

Unit-I

Leadership: basic definition of the concept and components of leadership, trait approach in theories of leadership, personal characteristics that support effective leadership, leader and values, the significance of self-knowledge for the role of leader (identity and integrity of leader). **Motivation in the context of personality**: sources of motivation, motivation and performance, performance motivation, aspirations, work satisfaction. specific theories of motivation, motivation program in organization.

Unit-II

Emotions and self-management: emotional intelligence and its significance in the role of leader, Handling emotions. **Approaches to Leadership**: competency and behavior approaches to leadership, model of four competencies for leadership, the contingency theory of leadership, situational leadership I and II, transactional and transformational leadership.

Unit-III

Leadership of workgroups and teams: group structure and dynamics, individual in a group, formation of teams and team work, group problem-solving, team excellence, participative leadership. **Leadership development**: skills for leadership and performance management: goal setting, support of employee development and communication of feedback, delegation, solving of conflict situations and negotiation.

Unit-IV

Creative leadership: influence on the creative potential of work groups and teams, formation of innovative climate in organizations. Leadership and power: sources of power in organizations. Gender and leadership, Leadership and organization culture, Link between leadership and activities leading to the formation, assertion or changes in organization culture, Intercultural aspects of leadership.

S. No.	Author(s)	Title	Publisher
1	Ubrin, a j.	Principles of Leadership	South-Western/Cengage
			Learning,2013
2	Uzes, j. M., posner, b.	Five Fundamentals of	Wiley. 2016
	Z.	Becoming an Exemplary	
		Leader.	

Course Code	MGT642
Course Title	International Business Laws
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives (CO)	This course introduces the students to commercial law in undertaking international business.

Unit-I

Introduction to International Business: legal environment of international business, international law and the world's legal systems, resolving international commercial disputes.

Unit-II

Sales, Contracts and Excuses for Non- Performance: international sales, credits, and the commercial transaction, the documentary sale and terms of trade, the carriage of goods and the liability of air and sea carriers, bank collections, trade finance and letters of credit.

Unit-III

GATT Law and the World Trade Organization, Laws Governing Access to Foreign Markets, Regulating Import Competition and Unfair Trade, Imports, Customs and Tariff Law, The Regulation of Exports.

Unit-IV

International Marketing Law (Regulation of International Marketplace), Licensing Agreements and the Protection of Intellectual Property Rights, Host Country Regulations, Groups of Countries.

S. No.	Author(s)	Title	Publisher
1	Schaffer, R., Beverley E. and	International Business	Ohio: West
	Filiberto A	Law and Its	Educational Pub. Co.
		Environment	Latest Edition
2	Michael Bixby, Ray A. August	International Business	Pearson
		Law	

Course Code	MGT644
Course Title	Global logistics and Supply Chain Management
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives (CO)	The objective of the course is to make students acquaint with the
	present scenario of global supply chain management systems and
	latest supply chain designs.

Unit-I

Introduction to supply chain management: concept, objectives, need, globalization and international trade, supply chain strategies, Logistics service providers: concept and scope, of logistics and supply chain, importance of logistics in global Sourcing. Production and Consumption Dimension of Logistics: macro and micro aspects, Supply chain contours, Backward and forward linkages, supply chain efficiency.

Unit-II

Procurement and outsourcing, Inventory management, Warehousing and Materials management, Transport in supply chains, **Logistics and Procurement**: logistics as a support function of procurement and vendor facilitation, logistics as interface function of demand forecasting, global procurement, tracking inward shipments and storage planning.

Unit-III

Information flows and technology, Logistics and financial management, Measuring and managing logistics performance, Importance of Global Logistics, **EXIM Logistics:** picking, packing, vessel booking [Less-than container load(LCL) / full container load (FCL)], customs, documentation, shipment, delivery to distribution centers, distributors and lastly the retail outlets.

Unit-IV

Supply chain vulnerability, risk, robustness and resilience. Integration and collaboration, Sustainable Logistics and supply chain systems, New supply chain designs, Invoice management, call centers, warehouse/distribution facilities.

S. No.	Author(s)	Title	Publisher
1	Mangan, J. and Tim B	Global Logistics and Supply	John Wiley and Sons,
		Chain Management	Latest Edition
2	Chandra L	Supply Chain Management	Pearsons

Course Code	MGT646
Course Title	International Financial Management
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives (CO)	This course aims at providing the understanding of Multinational
	Corporations within an environment of free flows of foreign
	capital and floating exchange rates.

Unit-I

Introduction of International Financial Management: concept, need and objectives, financial management in global rise of multinational corporations, relationship of multinational financial management with domestic financial management, financing the multinational corporation. International Monetary System, Foreign Exchange Rate Determination.

Unit-II

Currency Forecasting: spot market and forward market, exchange rate equilibrium, asset market model of exchange rates, purchasing power parity, intervention of central bank in determination of exchange rates. Managing Translation and Transaction Exposure.

Unit-III

Measuring Translation and Transaction Exposure, Foreign market entry and country risk management, **Cross border Capital Budgeting**: meaning, calculation of cash outlay and future cash inflows for parent and subsidiary.

Unit-IV

Foreign Exchange Risk Management: currency futures and options market, interest rate forwards and futures, swaps, interest rate swaps, commodity swaps, currency swaps, debt-equity swaps, total return swaps, credit default swap (CDS).

S. No.	Author(s)	Title		Publisher
1	Shapiro, A. C.	Multinational	Financial	Allyn and Bacon, Latest
		Management		Edition.
2	Apte, P G	International	Financial	Tata McGraw-Hill Pub, Latest
		Management		Edition.
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Course Code	MGT648
Course Title	WTO and RTAs
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives (CO)	To enable the students to know what is the importance of WTO
	and regional trade arrangements to the world economy.

Unit-I

WTO Formation: historical prospective, functions and structure, GATS(general agreement on trade in services), TRIPS (trade related intellectual property rights) and TRIMS (trade related investment measures) and their importance to business and world economy. Dispute Settlement Board and Mechanism, WTO consultation process.

Unit-II

Regional Trade Agreements: proliferation of regional trade agreements. the co-existence of RTAS and the WTO, critical issues of fragmentation of international trade law and jurisdictional competition, the economic dimension of regional trade agreements and their relation to the multilateral trading system, the political economy of regional trade agreements, constitutional functions of the WTO and regional trade agreements.

Unit-III

RTAs and India's foreign trade: regional trade blogs and its role with India in international business, services liberalization in regional trade agreements, bilateral, regional and multilateral agreements covering foreign investment in services. TRIPS-Plus Provisions in Regional Trade Agreements, Competition Law and Regional Trade Agreements, Regional Trade Agreements.

Unit-IV

Evaluation of Regional Trade Agreements among developed and developing countries: study of NAFTA SAFTA, EU, ASEAN, GCC, OPEC, COMESA, ECOWAS, SAARC, PARTA, CROP. Overlaps and Conflicts of Jurisdiction between the WTO and RTA's Applicability of WTO Law in Regional Trade Agreements.

S. No.	Author(s)		Title	Publisher
1	Bartels, L.,	and	Regional Trade	Oxford: Oxford University
	Federico O		Agreements and the WTO	Press, Latest Edition
			Legal System	
2	Rao, P. K.		WTO: Text and Cases	Excel Readings, Latest Edition

Course Code	MGT650
Course Title	Cross Cultural Management
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Graduation in any stream.
Course Objectives (CO)	To understand Cross Cultural Management issues, relate to managerial practice and provide exposure to the diverse management styles across the globe.

Unit-I

The Concept of Cross Culture Management: need and objectives, definition of culture, impact of the culture on international business. Kluckhohn and Strodtbeck's Cultural Dimension, Hofstede's Cultural Dimensions, Trompenaars Cultural Dimensions, Hall and Hall's Cultural Dimensions

Unit-II

Management styles in cross culture: Japanese style of management, German style of management, UK style of management, French style of management, Spanish style of management, Style of management of United States companies.

Unit-III

Management Characteristics of West European Companies, Differences in managerial behavior, Cultural influences on leaders and their behavioral patterns, Impact of culture on organization and employees.

Unit-IV

Management of Multinational Companies: problems and prospects, MNCs in an international environment, culture and communication, major obstacles to intercultural communication, nonverbal communication, communication and international negotiation, subtle art of negotiation, managing negotiation with multinational companies.

S. No.	Author(s)	Title	Publisher
1	Daniels, J. D., and Lee H. R.	International Business	Reading, Mass:
		Environments and	Addison-Wesley
		Operations	
2	Griffin, R.W., and Michael W.	International Business	ENJ: Prentice Hall.
	P.	Upper Saddle River	Latest Editionxcel
			Readings, Latest
			Edition

Course Code	CSA614
Course Title	Parallel Computing
Type of Course	DSE
LTP	400
Credits	4
Course Prerequisites	Parallel Computing
Course Outcome (CO)	Learn to design and develop Web-based applications using PHP
	technology that meet commercial programming standards.

Unit - I

Introduction: Paradigms of parallel computing: Synchronous - vector/array, SIMD, Systolic; Asynchronous - MIMD, reduction paradigm. Hardware taxonomy: Flynn's classifications, Handler's classifications. Software taxonomy: Kung's taxonomy, SPMD.

Unit - II

Abstract parallel computational models: Combinational circuits, Sorting network, PRAM models, Interconnection RAMs. Parallelism approaches - data parallelism, control parallelism **Performance Metrices:** Laws governing performance measurements. Metrices - speedups, efficiency, utilization, communication overheads, single/multiple program performances, bench marks.

Unit - III

Parallel Processors: Taxonomy and topology - shared memory mutliprocessors, distributed memory networks. Processor organization - Static and dynamic interconnections. Embeddings and simulations.

Parallel Programming: Shared memory programming, distributed memory programming, object oriented programming, data parallel programming, functional and dataflow programming.

Unit - IV

Scheduling and Parallelization: Scheduling parallel programs. Loop scheduling. Parallelization of sequential programs. Parallel programming support environments.

Sr. No.	Author(s)	Title	Publisher
1	M. J. Quinn.	Parallel Computing: Theory and Practice	McGraw Hill
2	T. G. Lewis and H. El-Rewini.	Introduction to Parallel Computing	Prentice Hall

Course Code	CSA616	
Course Title	Compiler Design	
Type of Course	DSE	
LTP	4 0 0	
Credits	4	
Course Prerequisites	Compiler Design	
Course Outcome (CO)	This course will provide the in-depth knowledge of different	
	concepts involved while designing a compiler.	

Unit - I

Overview of compilation: The structure of a compiler and applications of compiler technology; Lexical analysis - The role of a lexical analyzer, specification of tokens, recognition of tokens, hand-written lexical analyzers, LEX, examples of LEX programs. 55 Punjab Technical University B. Tech. Computer Science Engineering (CSE).

Unit - II

Introduction to syntax analysis: Role of a parser, use of context-free grammars (CFG) in the specification of the syntax of programming languages, techniques for writing grammars for programming languages (removal left recursion, etc.), non- context-free constructs in programming languages, parse trees and ambiguity, examples of programming language grammars.

Unit - III

Top-down parsing: FIRST & FOLLOW sets, LL(1) conditions, predictive parsing, recursive descent parsing, error recovery. LR-parsing - Handle pruning, shift-reduce parsing, viable prefixes, valid items, LR(0) automaton, LR-parsing algorithm, SLR(1), LR(1), and LALR(1) parsing. YACC, error recovery with YACC and examples of YACC specifications.

Unit - IV

Syntax-directed definitions (attribute grammars): Synthesized and inherited attributes, examples of SDDs, evaluation orders for attributes of an SDD, dependency graphs. S-attributed and L-attributed SDDs and their implementation using LR-parsers and recursive descent parsers respectively. **Semantic analysis:** Symbol tables and their data structures. Representation of "scope". Semantic analysis of expressions, assignment, and control-flow statements, declarations of variables and functions, function calls, etc.

Sr. no.	Name	AUTHOR(S)	PUBLISHER
1.	Principles of Compiler Design	Aho, Ullman	Narosa Publication
2.	Compiler Design in C, 5, 1997.	Holub	PHI

Course Code	CSA 618
Course Title	Ruby on Rail
Type of Course	DSE
LTP	4 0 0
Credits	4
Course Prerequisites	Graduation
Course objectives	The objective of this course is to make students familiar with
	object Oriented Programming Language and Ruby for web
	Based Applications

Unit - I

Introduction: What is Ruby, Why ruby, General purpose of ruby, Brief History of Ruby, Where does ruby get its ideas, Ruby Installation with RVM, Installations of Software (RVM, Rails, GIT, My SQL, Ruby, Sublime Text Editor), Rvm Commands, Rvm Usage, Creating a basic script in ruby, Sample demo of ruby program.

Unit - II

Working with Linux(Ubuntu Platform): Basic Linux Commands, file directory permissions, changing access rights, Text Editors used for ROR, Ruby Operators & Ruby Shell, Working with Ruby operators and expressions, Numeric Methods, Rand and Ranges, Strings, Escaping, Interpolation, String methods, Dates and Times, Ruby methods and modules, OOP in Ruby, Basic loops and iterators.

Unit - III

Rails Installation and Ruby Gems: What is Rails, Full tack Framework, Rails Strength, COC(convention over configuration), Rails Installation, Ruby on Rails installation on linux, Ruby Gems, Working with Ruby Gems, Gem commands Framework Technology MVC Rails Components.

Unit - IV

Models: What is model, Active record Basics, Destroy a model, Migrations, Modify, update a model, Dropping a database, Association, Validation and callbacks, Why Association, Without and with Association, Types of Association, Active Record validations, Callbacks & types of callbacks Views, Embedded ruby, Working in HAML, Working with Ajax, Jquery in Rails framework, Testing, TDD & BDD.

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Sr. no. Al		AUTHOR(S)	Title	PUBLISHER	
	1	Daniel Kehoe	Learn Ruby on Rails	RailsApps	
			,	11	
2 MichealHartl Ruby on 1		Ruby on rails tutorials	Covers Rail		
			<i>j</i>		

Course Code	CSA620
Course Title	Image Processing
Type of Course	DSE
LTP	4 0 0
Credits	4
Course Prerequisites	Basic knowledge about computer graphic & Mathematics
Course Outcome (CO)	To cover the 2-D & 3-D image concept

Unit - I

Introduction: Background, Digital Image Representation, Fundamental Steps in Image Processing, Elements of a Digital Image Processing System. **Digital Image Fundamentals:** Elements of Visual Perception, A Simple Image Model, Sampling and Quantization, Some Basic Relationships between Pixels, Imagining Geometry.

Unit - II

Image Transforms: Introduction to the Fourier Transform, The Discrete Fourier Transform, Some Properties of the Two-Dimensional Fourier Transform, Other Separable Image Transforms. **Representation and Description:** Representation, Boundary and Regional Descriptors, Relational Descriptors. Object Recognition: Pattern and pattern classes, recognition based on Decision Theoretic Methods, Structural Methods.

Unit - III

Image Enhancement : Spatial Domain Methods, Frequency Domain Methods, Some Simple Intensity Transformations, Histogram Processing, Image Subtraction, Image Averaging, Background, Smoothing Filters, Sharpening Filters, Lowpass Filtering, Highpass Filtering, Generation of Spatial Masks from Frequency Domain Specifications.

Image Restoring: Degradations Model - Definitions, Degradation Model for Continuous, Restoration in the Spatial Domain, Geometric Transformation. **Color Image Processing:** Color fundamentals, models, transformation and segmentation. Noise in color images.

Unit - IV

Image Compression: Fundamentals – Error free compression, Lossy compressionCoding Redundancy, Inter-pixel Redundancy, Psycho visual Redundancy, Fidelity Criteria. Image Compression Models – The Source Encoder and Decoder, The Channel Encoder and Decoder. Elements of Information. **Image Compression:** Theory – Measuring Information, The Information Channel, Fundamental Coding Theorems, Using Information Theory.

Sr. no.	AUTHOR(S)	Title	PUBLISHER
1	Rafael. C. Gonzalez & Richard E.Woods	Digital Image Processing	Pearson Education
2	W.K.Pratt	Digital Image Processing	John Wiley & sons

Course Code	CSA620
Course Title	Image Processing
Type of Course	DSE
LTP	4 0 0
Credits	4
Course Prerequisites	Basic knowledge about computer graphic & Mathematics
Course Outcome (CO)	To cover the 2-D & 3-D image concept

Unit - I

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Sr. no.	AUTHOR(S)	Title	PUBLISHER
1 Rafael. C. Gonzalez & Richard E.Woods		Digital Image Processing	Pearson Education
2	W.K.Pratt	Digital Image Processing	John Wiley & sons

