

**MBA LOGISTICS & SUPPLY
CHAIN MANAGEMENT**

Vels University MBA Program Outcomes

The following outcomes have been identified by the School of Management and commerce, Faculty Council, as important for students to be able to perform at the conclusion of the MBA program. The MBA curriculum has been mapped to these outcomes, which are regularly assessed to identify levels of student achievement and areas of improvement. Students who are Graduates of the Master of Business Administration degree program will be able to:

1. Apply fundamental knowledge of management that comprising of accounting, finance, marketing and human resources management with supply chain for a supply chain enterprise.
2. Apply fundamental knowledge of management that comprising of accounting, finance, marketing and human resources management with logistics for a business enterprise.
3. Demonstrate knowledge, skills and techniques of operations that comprising of project and quantitative method to improve supply chain and logistics operations.
4. Apply the fundamental concepts of transportation and distribution management related to national and international business system.
5. Organize the implementation of logistics strategies and manage logistics resources to improve supply chain operations.
6. Identify the concepts of planning and strategy to improve logistics and supply chain system operations.
7. Discover the drivers of logistics and supply chain system to improve the business performance.
8. Improve the supply chain process using the advanced operations such as quality, lean, strategy and green to ensure sustainable business practices.
9. Improve the logistics process using the advanced operations such as quality, lean, strategy and green to ensure sustainable business practices.
10. Develop analytical skills using Information technology to implement the concepts of logistics and supply chain system to aid decision making.
11. Communicate effectively in various firms by effective use of recent technology and logical reasoning for presentation, documentation, report writing and manual preparation

12. Adapt to changing the demands due to advancements in Information Technology in logistics and supply chain industry.

MBA

Logistics & Supply Chain Management

Program Specific Outcomes

- PSO – 1: To apply supply chain management principles to integrated supply chain activities to articulate and deliver customer-oriented quality outcomes within legal and ethical frameworks.
- PSO – 2: To develop operations to source and utilise appropriate technology to support the implementation of logistics strategies and manage logistics resources to improve supply chain operations.
- PSO – 3: To use state-of-the-art distribution practices to implement strategic and operational concepts and techniques that underpin distribution of goods and services for domestic and international markets.
- PSO – 4: To improvise creative supply chain design and solutions to plan and implement less conventional supply chain solutions in a dynamic business environment at the strategic, tactical and operational levels to ensure sustainable business practices.
- PSO – 5: To apply teamwork and leadership capabilities to actively lead and work with people of diverse skills and cultural backgrounds within a dynamic business environment to achieve stated business goals and objectives.

VELS UNIVERSITY
SCHOOL OF MANAGEMENT STUDIES
BOARD OF STUDIES MEMBERS
MBA (GEN), MBA (LSM), MBA (LSCM) and MBA(BA)

Sl.No	Name & Address	Designation
1.	Dr.K.S.Meenakshisundaram, Director, School of Management Studies, Vels University,Chennai-600117	Chairperson
2.	Dr.R.Thenmozhi, Professor and Head, Department of Management Studies, Madras University, Chennai	External Expert
3.	Mr.K.V.V.Giri President CCHA, M/S Vaishnavi freight logistics Pvt ltd.	External Expert
4.	Mrs.Sripriya, Operations Programme Manager, TCS	Alumni
5.	Dr.S.Vasantha , Professor, School of Management Studies, Vels University,Chennai-600117	Internal Member
6.	Dr.S.Preetha, Associate Professor,	Internal Member

	School of Management Studies, Vels University,Chennai-600117	
7.	Dr.G.Rajini Associate Professor, School of Management Studies, Vels University,Chennai-600117	Internal Member
8.	Dr.P.Shalini Associate Professor, School of Management Studies, Vels University,Chennai-600117	Internal Member
9.	Dr.P.G.Thirumagal Assistant Professor, School of Management Studies, Vels University,Chennai-600117	Internal Member
10.	Dr.Madhumita.G Assistant Professor, School of Management Studies, Vels University,Chennai-600117	Internal Member

VELS INSTITUTE OF SCIENCE, TECHNOLOGY & ADVANCED STUDIES (VISTAS)

(Deemed to be University u/s 3 of the UGC Act, 1956)

PALLAVARAM - CHENNAI - INDIA



VELS
UNIVERSITY



MBA

Logistics & Supply Chain Management

Curriculum and Syllabus

(Based on Choice Based Credit System)

Effective from the Academic year

2015-2016

Department of M.B.A

School of Management Studies

MBA –LOGISTICS& SUPPLY CHAIN MANAGEMENT

CURRICULUM

Total No of Credits 90

SEMESTER I

Code No	Course	Hour / Week			Credits
		Lecture	Tutorial	Practical	
15MBS001	Principles of Management	4	0	0	3
15MBS002	Managerial Economics & Environmental Analysis	4	0	0	3
15MBS003	Accounts & Finance for Logisticians	3	0	1	4
15MBS004	Marketing Management	4	0	0	3
15MBS005	Quantitative Techniques & Forecasting Methods	4	0	1	4
15MBS...	Generic Elective 1	3	0	0	3
15MBS006	Business Communication	3	0	0	3
15MBS...	Generic Elective 2	3	0	0	2
		28	0	2	25

SEMESTER II

Code No	Course	Hour / Week			Credits
		Lecture	Tutorial	Practical	
15MBS...	Generic Elective 3	3	0	0	3
15MBS...	Discipline Specific Elective 1	4	0	0	3
15MBS...	Discipline Specific Elective 2	4	0	0	3
15MBS...	Discipline Specific Elective 3	4	0	0	3
15MBS007	Business Ethics & Corporate Governance	4	0	0	3
15MBS008	Human Resources Management	4	0	0	3
15MBS009	Operations Research	4	0	0	3
15PGE511	Soft Skills for Managers	3	0	0	2
15MBS011	*Internship with Viva Voce	0	0	0	2
		30	0	0	25

SEMESTER III

Code No	Course	Hour / Week			Credits
		Lecture	Tutorial	Practical	
15CMBS...	Discipline Specific Elective 4	4	0	0	3
15CMBS...	Discipline Specific Elective 5	4	0	0	3
15CMBS...	Discipline Specific Elective 6	4	0	0	3
15CMBS...	Discipline Specific Elective 7	4	0	0	3
15CMBS...	Generic Elective 4	4	0	0	3
15CMBS...	Generic Elective 5	3	0	0	3
15CMBS38	Research Methodology	4	0	0	4
15CMBS...	Generic Elective 6	3	0	0	3
		30	0	0	25

SEMESTER IV

Code No	Course	Hour / Week			Credits
		Lecture	Tutorial	Practical	
15CMBS41	Enterprise Resource Planning for Managers	4	0	0	5
15RMBS41	*Project Work (4 months)	0	0	0	10
		4	0	0	15

List of Discipline Specific Elective Courses

Code No	Course
15MBS101	Transportation & Distribution Management
15MBS102	Supply Chain Concepts & Planning
15MBS103	Customer Relationship and Service Management
15CMBS40	Logistics & Supply Chain Performance Management
15CMBS32	Supply Chain Information System
15CMBS33	Contract Logistics & Closed Loop Supply Chains
15CMBS35	Green Supply Chain Management
15CMBS42	Vendor Managed Inventory
15CMBS43	SCM For Services Marketing
15CMBS44	E-Business
15CMBS45	Exim Documentation and Procedures
15CMBS46	Air Cargo Management
15CMBS47	World Class Manufacturing
15CMBS48	Multimodal Transport Operations
15CMBS49	Inland Waterways Management
15CMBS36	Project Management

List of Generic Elective Courses

Code No	Course
15MBS151	Operations Management
15CMBS50	Business policy & Strategy
15MBS153	Logistics strategy & planning
15CMBS51	Industrial Engineering & Management
15CMBS52	Environmental Studies
15CMBS39	Lean Six Sigma
15CMBS53	Total Quality Management and Statistical Process Control
15CMBS31	Warehousing & Distribution facilities management
15CMBS34	Global SCM
15CMBS37	Computer Language for Management
15MBS152	Personality Development

Course Objective:

- To understand the fundamentals of Management, its significance, scope of management, levels of management, functions of a manager and types of business organisation.
- To learn about the development of management thought, contributions towards Taylor & Fayol principles.
- To examine the various types of planning, strategies and policies.
- To study about the decision making in the organisation.
- To understand about the organisational structure, its types, decentralisation and delegation of the authority.
- To study about the Line & staff authority and the effectiveness of management.
- To identify the communication process, theories of motivation and types of leadership.
- To comprehend the terms HRD, Staffing and selection process.
- To know about the control process, its techniques.
- To identify the global environment and international management.

Course Outcomes:

The students will be able to:

CO – 1: Describe the management and observe the historical development of management thought.

CO – 2: Relate to the business organisations.

CO – 3: Reproduce Planning significance and its types of planning, various strategies.

CO – 4: Analyse the Business decisions made using various tools and techniques in the corporate world.

CO – 5: Equip knowledge about the organization structure, its types of organisation structure, delegation of authority.

CO – 6: Distinguish between the line and staff authority.

CO – 7: Evaluate about the communications in the organisations, its process and breakdowns,

theories of leadership and determine various theories of motivations

CO– 8:Determine the selection process, staffing & HRD.

CO – 9: Evaluate about the control process and its techniques.

CO – 10: Determine about the global environment and the fundamentals of liberalization, globalisation and international management.

UNIT – I INTRODUCTION TO MANAGEMENT PRINCIPLES 12

Definition of Management – Science or Art – Management and Administration – Development of Management Thought – Contributions of Taylor and Fayol – Functions of Management – Types of Business Organizations.

UNIT – II PLANNING 12

Nature & Purpose – Steps involved in Planning – Objectives – Setting Objectives – Process of Managing by Objectives – Strategies, Policies & Planning Premises- Forecasting–Decision-making.

UNIT – III ORGANIZING 12

Nature and Purpose – Formal and informal organization – Organization Chart – Structure and Process – Line and Staff authority – Benefits and Limitations – De-centralization and Delegation of Authority – Staffing – Selection Process - Techniques – HRD – Managerial Effectiveness.

UNIT – IV DIRECTING 12

Scope – Human Factors – Creativity and Innovation – Harmonizing Objectives – Leadership – Types of Leadership Motivation – Hierarchy of needs – Motivation theories – Motivational Techniques – Job Enrichment – Communication – Process of Communication – Barriers and Breakdown – Effective Communication – Electronic media in Communication.

UNIT – V CONTROLLING 12

System and process of Controlling – Requirements for effective control – The Budget as Control Technique – Information Technology in Controlling – Use of computers in handling the information – Control of Overall Performance – Direct and Preventive Control – Reporting – The Global Environment – Globalization and Liberalization – International Management and Global Theory of Management.

Total: 60 hours

TEXT BOOKS:

1. Harold Koontz & Heinz Weihrich, Essentials of Management, Tata McGraw-Hill, 1998.
2. Joseph L Massie, Essentials of Management, Prentice Hall of India, (Pearson) Fourth Edition, 2003.

REFERENCES:

1. Tripathy PC And Reddy PN, Principles of Management, Tata McGraw-Hill, 1999.
2. Decenzo David, Robbin Stephen A, Personnel and Human Resources Management, Prentice Hall of India, 1996.
3. JAF Stomer, Freeman R. E and Daniel R Gilbert, Management, Pearson Education, Sixth Edition, 2004.
4. Fraidoon Mazda, Engineering Management, Addison Wesley, 2000.

Course Objective:

- To explore the fundamental concepts of managerial economics, the production functions and the cost functions.
- To have a sound knowledge of the demand, supply, cost analysis, pricing and environmental analysis.

Course Outcomes:

The students will be able to:

CO – 1: Discriminate different cost concepts

CO – 2: Estimate the future sales with the available data

CO – 3: Construct profit planning and policies

CO – 4: Estimate the trend of supply of shipping.

CO – 5: Predict the future demand for the product

CO – 6: Construct cost budget feasible for the given type of business

CO – 7: Analyze the investment decision and suggest for the best alternative

CO – 8: Prepare business report after conducting the case study.

CO – 9: Analyze the changes in the economic indicators

CO – 10: Build the economic policy suitable.

UNIT I DEMAND & SUPPLY ANALYSIS**12**

Definition of Demand- Law of Demand-Determinants of Demand- Demand Curve-Elasticity of Demand-Law of Supply-Determinants of Supply- Elasticity of Supply- Consumer Behavior- Marginal Utility- Law of Diminishing Marginal Utility-Indifference Curve- Consumers' Equilibrium-Consumer Surplus.

UNIT II PRODUCTION ANALYSIS**12**

Production function- Law of returns- Iso-Quants Curve- Importance of Cost Analysis- Cost & Profit Analysis-Profit concepts- Functions of profit- Break even analysis- Economies of Scale- Market structure & Pricing- Characteristics of Market- Perfect Competition- Monopoly-

Monopolistic Competition- Price Leadership.

UNIT III ECONOMIC AND SOCIAL ENVIRONMENTS 12

Since 1991 – Industrial Policy of 1991, Economic Reforms: Liberalization, Globalization and Privatization, Financial Sector Reforms, Fiscal Sector Reforms, Economic Reforms and Social Justice.

UNIT IV ECONOMIC REFORMS 12

Factors influencing the Supply of Shipping- Tonnage, Number and Flag, Productivity and Supply trends - surplus tonnage/ active fleet/ short run supply, measuring elasticity of supply.

UNIT V GLOBALIZATION 12

Globalization and its impact on development, Logistics as the carrier of globalization processes, Micro environmental issues of logistics and their economic and social relevance, Logistics as a Strategy for sustainable global development.

Total: 60 hours

TEXT BOOKS:

1. Dean Joel, Managerial Economics, PHI, New Delhi; 1976.
2. Douglas Evan J, Managerial Economics, Theory, Practice & Problems; PHF, New Delhi; 1983.

REFERENCE BOOKS:

1. Varshney. R.L. &Maheshwari. K.L., Managerial Economics, Prentice Hall of India, 2008.
2. Joel Dean, Managerial Economics, Prentice Hall of India, 2007.
3. Mote, V.C. Samuel Paul and GS Gupta, Managerial Economics - Concepts & Cases, TMH; 1977.
4. Wildsmith JR, Managerial Theories of the Firm, Martin-Robertson, 1972.
5. K.K. Seo, Managerial Economics, Richard D. Irwin Inc. 1988.
6. I.C. Dhingra, Essentials of Managerial Economics - Theory, 2014

Course Objective:

- The course is to study of the cost and revenue models used to monitor, evaluate and control modern supply chain and logistics areas.
- The strategic and functional use of financial information in Logistics like cost, sources of capital, profit analysis and financial operating methods are delivered.

Course Outcomes:

The students will be able to:

CO – 1: Describe about the basic financial concepts.

CO – 2: Analyze various costing concepts like marginal costing.

CO – 3: Apply the professional financial management aspects relevant to logistics and supply chain industry.

CO – 4: Understand the various cost concepts.

CO – 5: Analyze the financial and operating methods.

CO – 6: Gain knowledge on financial and operating leverages.

CO – 7: Well versed in the double entry system of accounting.

CO – 8: Gain a wide knowledge on various financial statement analyses.

CO – 9: Have diverse knowledge of working capital concepts.

CO – 10 Analyze of different capital budgeting decisions.

UNIT – I FINANCIAL ACCOUNTING**12**

Meaning of double entry accounting, Meaning, nature and importance Accounting cycle, accounting equation. Journal, Ledger and Trial Balance .Accounting concepts and conventions, Financial statements-Profit & Loss account & Balance sheet. Financial statement Analysis- Comparative Analysis, Common size & Trend Analysis

UNIT – II FINANCIAL STATEMENT ANALYSIS**12**

Ratio analysis – Classification of ratios, Advantages & Disadvantages - Fund flow statements advantages and disadvantages- Marginal costing – Cost Volume Profit analysis – Break Even analysis – BEP, P/V ratio, MS.

UNIT – III FINANCIAL MANAGEMENT 12

Introduction – Nature of Financial management –Objectives of financial management - Financial Decisions- Organization of Finance function – Agency Problem Working capital – Concepts – Types – Determinants.

UNIT – IV CAPITAL 12

Sources - Cost of Capital – Meaning and Significance – Components – Cost of Equity, Cost of Debt, Cost of Preferred capital, Cost of retained earnings and weighted average cost of capital. Capital budgeting – meaning – Different methods – Payback, Net Present Value, Internal rate of return, Profitability index and average rate of return.

UNIT – V FINANCIAL ANALYSIS 12

Financial, Operating and Combined Leverages – Meaning of Capital Structure -Determinants of capital structure .Dividend decision – Dividend policy - Dividend theories – Walter and Gordon model of dividend – Stability of dividend – Share split – Buyback of shares.

Total: 60 hours

TEXT BOOKS:

1. T.S.Reddy&Y.Hari Prasad Reddy, Financial and Management Accounting, Margham Publications, 2012.

REFERENCES:

1. I.M.Pandey, Financial Management, Vikas Publishing House Ltd, 9th edition, 2007.
2. M.Y.Khan and P.K.Jain, Financial Management, Tata McGraw Hill - 4th Edition, 2004.
3. James C.Vanhorne, Financial Management and Policy, Pearson Education Asia- 12th Edition, 2012

Course Objective:

- To emphasise the importance of the marketing function in an organization.
- To understand the core concepts right from deciding the segment till customer satisfaction.

Course Outcomes:

The students will be able to:

CO – 1: Relate the real corporate function of marketing.

CO –2: Discuss the importance of macro and micro environment in molding the company's marketing function.

CO –3: Differentiate the consumer and institutional buyer behavior.

CO –4: Compare and contrast goods and services.

CO –5: Define the target segments for the products.

CO –6: Plan the positioning strategies used by the companies for their products.

CO –7: Justify the importance of products, branding and new product development.

CO –8: Assess the importance of integrated marketing communications.

CO –9: Summarise the importance of marketing research in decision making.

CO –10: Predict the future demand based on prediction.

UNIT I INTRODUCTION 12

Understanding the term Marketing - Importance of Marketing-Scope of Marketing-Core Concepts-Company Orientation toward marketplace-Marketing and Customer Value-Marketing Environment-Micro and Macro Environment.

UNIT II CONSUMER MARKETS 12

Model of Consumer Behavior, Seven Os Structure, Factors Affecting Consumer Behavior, Stages in the Adoption Process, Industrial Markets - Characteristics, Industrial Buyer Behavior, Service Marketing-Characteristics-Marketing Strategy.

UNIT III MARKET SEGMENTATION 12

Levels and Bases for Segmentation, Segmenting Consumer Markets, Business Markets,

Classical, Objective & Subjective Approach – Addition, Multiplication & Baye's Theorem - Binomial, Poisson & Normal Distribution.

UNIT – IV HYPOTHESIS TESTING 12

Significance Level – Type I & Type II Error – One, Two tailed tests – Hypothesis Testing of Means, Proportion – Chi-Square test, t test & F test – ANOVA.

UNIT – V INDEX NUMBER AND TIME SERIES 12

Forecasting techniques- Types of forecasting, Index Number and Time series- Trend Projection

Total: 60 hours

TEXT BOOKS:

1. R.S.N. Pillai, V. Bagavathi, Statistics, S.Chand Limited, 7th Ed, 2008.
2. N.D. Vohra, Business Statistics, Tata McGraw-Hill Education, 2nd Ed, 2013.
3. G. V. Shenoy, Uma K. Srivastava, S. C. Sharma, Business Statistics, New Age International, 2nd Ed, 2005.
4. Beri, Business Statistics, Tata Mc Graw Hill, 2nd Ed, 2009.

REFERENCES:

1. Keller. G, Statistics for Management, Cengage Learning, 1st Ed, 2009.
2. J. K Sharma, Business Statistics ,Pearson, 2nd Ed, 2010.
3. Arora PN & others, Complete Statistical Methods, S. Chand, 3rd Ed, 2010.
4. Bhardwaj R S, Business Statistics, Excel Books India, 2nd Ed, 2009.

Course Objective:

- To study the communication skills and apply it in practical business situations, written exercises & e-mails and letters: Re-writing and re-framing of sentences are being delivered.

Course Outcomes:

The students will be able to:

- CO – 1: Recall the basics of communication and its process, elements and importance.
- CO – 2 Well versed with the various barriers in the communication.
- CO – 3: Express the components of good communication.
- CO – 4:Identify the various stages of written communication.
- CO – 5: Evaluate the effectiveness of revising and checking the messages.
- CO – 6: Develop the proofreading practice to ensure message preparation is upto standard to achieve its purpose.
- CO – 7: Write E-mails in a structured pattern.
- CO – 8: Well versed with the skills of writing an email - Introduction, Body and Conclusion,
- CO – 9: Employ the art of report preparation and writing various types of letters.
- CO – 10: Develop the skills of oral presentation.

UNIT – I INTRODUCTION 12

Fundamentals of Communication, Business Communication, The Communication Model, Communicating in teams, Overcoming the Barriers to Communication.

UNIT – II OVERVIEW 12

Non-verbal communication, Introducing the 7 Cs of business writing – Candid, Clarity, Complete, Concise, Concrete, Correct and Courteous, Writing business messages, The Stages in writing, Pre writing, Writing and Post writing.

UNIT – III REVISING AND CHECKING MESSAGES 12

Revising to improve the content and sentence structure, Avoiding redundant phrases and

words, Proof-reading to correct grammar, spelling, punctuation, format, and mechanics, Evaluating whether the message achieves its purpose.

UNIT – IV EMAIL WRITING 12

The Process of Writing E Mails, Breaking it Down – The PAIBO Technique, Structuring an E Mail – The 3 T's – Introduction, Body and Conclusion, Effective Subject lines, Salutation and Signing off

UNIT – V REPORTS AND PRESENTATIONS 12

Business reports and Proposals, Format, visual aids and contents, Oral Business presentations.

Total: 60 hours

TEXT BOOKS:

1. Sanjay Kumar & Pushpalatha, Communication Skills, Oxford University Press, 2011.
2. Kaul & Asha, Effective Business Communication, PHI 2nd Edition, 2006.

REFERENCES:

1. Lesikar R.V & Flatley M V, Basic Communication Skills for empowering the internet generation, Tata-McGraw Hill, 2009.
2. Sharma R C & Mohan K, Business Correspondence & Report Writing, TMH, 2009.

Course Objective:

- To help the students to recognize legal and ethical issues when making business decisions
- To gain an enhanced understanding of following ethical rules and ethical constraints
- To improve analytical problem solving and ethical decision making skills.

Course Outcomes:

The students will be able to:

CO – 1: Explore the relationship between ethics and business and the subsequent theories of justice and economics across different cultural traditions.

CO – 2: Explain the relationship between ethics, morals and values in the workplace.

CO – 3: Formulate ethical philosophy to explain how it contributes to current practice.

CO – 4: Appraise some of the competing demands on business when scrutinizing the ethics of business activity.

CO – 5: Critically apply understanding of ethics of real-world contexts and gather and analyse information by way of undertaking a research project on a topic relevant to business ethics.

CO – 6: Discuss the corporate governance system influence performance, including both the performance of individual firms and the allocation of capital within a country;

CO – 7: Relate the evolution of diverse ownership and governance structures across different economies;

CO – 8: Evaluate theories of the firm, and explain how they are relevant to the diverse range of ownership structures that exist in reality;

CO – 9: Discuss the moral and social responsibility dimensions of corporate governance;

CO – 10: Describe why systematic way failure of corporate governance can lead to failure of confidence that could spread from individual firms to entire markets or economies

UNIT – I HUMAN VALUES 12

Morals, Values and Ethics – Integrity – Work Ethic – Service Learning – Civic Virtue – Respect for Others – Living Peacefully – caring – Sharing – Honesty – Courage – Valuing Time – Co-operation – Commitment – Empathy – Self-Confidence – Character – Spirituality.

UNIT – II ETHICS 12

Senses of ' Ethics' - variety of moral issued - types of inquiry - moral dilemmas - moral autonomy - Kohlberg's theory - Gilligan's theory - consensus and controversy – Models of Professional Roles - theories about right action - Self-interest - customs and religion - uses of ethical theories.

UNIT – III CORPORATE SOCIAL RESPONSIBILITY 12

Social Responsibility of Business – Corporations expected to do - CSR as Business strategy for sustainable Development - Advantages and Scope of CSR – The Indian Perspective – Social Responsibility and Indian corporations. Corporate Governance – issues – Need – Corporate governance Code.

UNIT – IV SAFETY, RESPONSIBILITIES AND RIGHTS 12

Safety and risk - assessment of safety and risk - risk benefit analysis and reducing risk - the three mile island and chernobyl case studies. Collegiality and loyalty - respect for authority - collective bargaining - confidentiality - conflicts of interest - occupational crime - professional rights - employee rights - Intellectual Property Rights (IPR) - discrimination.

UNIT – V GLOBAL ISSUES 12

Multinational corporations - Environmental ethics - computer ethics - weapons development.

Total: 60 hours

TEXT BOOKS:

1. Mike Martin and Roland Schinzinger, Ethics, McGraw-Hill, New York 1996.
2. Govindarajan M, Natarajan S, Senthil Kumar V. S, Ethics, Prentice Hall of India, New Delhi, 2004.

REFERENCES:

1. Charles D. Fleddermann, Ethics, Pearson Education / Prentice Hall, New Jersey, 2004 (Indian Reprint now available).
2. Charles E Harris, Michael S. Protchard and Michael J Rabins, Engineering Ethics –

Concepts and Cases, Wadsworth Thompson Learning, United States, 2000 (Indian Reprint now available)

3. John R Boatright, Ethics and the Conduct of Business, Pearson Education, New Delhi, 2003.

Course Objective:

- To teach relevant, practical and applicable human resource management skills to equip the student with the foundation competencies for working as HR practitioners in the business.
- To highlight the important challenges facing managers and employees in today's business climate.
- To introduce contemporary theory and practice in modern human resource management and the range of tools and methods available to address HR challenges and problems.

Course Outcomes:

The students will be able to:

CO – 1: Discuss the History and evolution of HRM.

CO –2: Explain the importance of HRM in the organizations through their Roles and responsibilities, challenges, etc.

CO – 3: Assess the major HRM functions and processes of HRM planning, job analysis and design, recruitment, selection, training and development, compensation and benefits, and performance appraisal

CO – 4: Identify strategic HR planning and the HRM process to the organization's strategic management and decisionmaking process.

CO – 5: Explain how training helps to improve the employee performance.

CO – 6: Discuss and understand the concept of career development and various career stages

CO – 7: Compare the difference between coaching and Mentoring

CO – 8: Analyze the emerging trends, opportunities and challenges in performance appraisal.

CO – 9: Apply the Concept of job application and how it is practically applied in the org.

CO – 10: Discuss various recent techniques related to HRM.

UNIT I HUMAN RESOURCE MANAGEMENT**12**

Meaning, Scope & Objectives of HRM, Evolution of HRM, Difference between PM & HRM,

HRM function's, HR as a Strategic Business Partner, HR Policy & procedures. Competitive challenges influencing HRM Qualities & qualification of HR Manager, Roles and Responsibilities of HR Manager/Departments.

UNIT II HUMAN RESOURCE PROCESS 12

Human Resource Planning – Job Analysis and Design -Recruitment - Selection and placement process – Types of interviews, Placement, Orientation & Induction, Determining training needs, Training Approaches. Separation process & Exit interview.

UNIT III MANAGING CAREERS 12

Career Development vs Employee development, Career stages – Career Choices and Preferences, Mentoring and Coaching, Time Management.

UNIT IV PERFORMANCE MANAGEMENT 12

Purposes of Performance Management, Performance Appraisal Methods, Punishment and Promotion, Job evaluation. Wage & Salary administration – Concepts, Pay structure, Incentives, Bonus, Insurance.

UNIT V CONTEMPORARY ISSUES IN HRM 12

Talent Management, Competency Mapping, Industrial Relations – Health & Safety issues, grievance handling, D Work Life Balance, Quality of Work Life, HRD in India, International HRM.

Total: 60 hours

TEXT BOOKS:

1. Aswathappa.K, Human Resource Management, Text and Cases, Tata McGraw Hill, New Delhi. 2014.
2. Gupta. S.C, Advanced Human Resource Management, Strategic Perspective, ANE Books Pvt.Ltd, New Delhi, 2009.

REFERENCE BOOKS:

1. Angela Baron and Michael Armstrong, Human Capital Management (Achieving Added Value Through People), Kogan Page Limited, United States, 2007.
2. Anuradha Sharma and AradhanaKhandekar Strategic Human Resource Management. Response Books, New Delhi, 2006.
3. Beer et al, Managing Human Assets, The Free Press: Maxwell Mac Millan Inc, New

York, 1984.

4. Dreher Dougherty, Human Resource Strategy :A behavioral perspective for the General Manager , Mc Graw – Hill Higher Education ,Singapore, 2001.
5. Sharma V.K Human Resource Management: Evolution and the Challenges Ahead, Viva Books Pvt Ltd, New Delhi, 2007.

Course Objective:

- To acquaint the student with the applications of Operations Research to business and industry
- To help them to grasp the significance of analytical techniques in decision making.
- To test on the application of Operations Research to business related problems.

Course Outcomes:

The students will be able to:

- CO – 1: Apply research techniques in quantitative and qualitative aspects.
- CO – 2: Schedule the projects and find the early ways of finishing it.
- CO – 3: Develop simulation models.
- CO – 4: Minimize the resource allocation for project.
- CO – 5: Maximize the productivity with help of least cost techniques.
- CO – 6: Minimize the waiting hours of simultaneous projects undertaken.
- CO – 7: Sequence and priorities the daily activities of a project.
- CO – 8: Build the best fit route of transportation for carrying schedule of activities.
- CO – 9: Graphically locate the optimum peak point in completing the project.
- CO – 10: Apply the operations techniques in reality to market scenario.

UNIT – I	LINEAR PROGRAMMING	12
Origin, Nature, Definition, Managerial applications & Limitations of OR. Linear programming – Formulation - Graphical & Simplex Method.		
UNIT – II	TRANSPORTATION AND ASSIGNMENT	12
Transportation Model - Initial Solution - NW Corner Rule, Least Cost Method, Vogel's Approximation method - Assignment Problem - Sequencing Problem.		
UNIT – III	PERT AND CPM	12
PERT & CPM – Project scheduling by PERT/CPM – Cost considerations in PERT/CPM.		
UNIT – IV	GAME THEORY	12

Replacement – Game Theory – Pure & Mixed Strategy – Graphical Method – Dominance Property.

UNIT – V QUEUING THEORY

12

Queuing Theory – Models – Simple Problem – Introduction to simulation.

Total: 60 hours

TEXT BOOKS:

1. Singh & Kumar, Operation Research, UDH Publisher, 2013.
2. Kothari, Quantitative Techniques, Vikas, 3rd Ed, 2006.

REFERENCES:

3. S.R. Yadav, A.K. Malik, Operations Research, Oxford University Press; First edition, 2014.
4. G.V.Shenoy,U.K.Srivastava,S.C.Sharma, Operations Research for Management, New Age International, Revised 2nd Ed, 2005.

Course Objective:

- To develop business communication skills of students by improving their speaking, listening and writing skills.
- To provide exposure to real world communication by presenting various real world business communication challenges in class-room structure

Course Outcomes:

The students will be able to:

CO– 1: Define the concept of Basics of communication.

CO – 2: Describe the various communication process and channels.

CO – 3: Explain the concept of listening.

CO – 4: Differentiate good listening and bad listening.

CO – 5: Create good interpersonal skills.

CO – 6: Identify the presentation skills

CO – 7: Practice written communication skills for business correspondence.

CO – 8: Describe the reading skills and its importance.

CO – 9: Well verse in preparing business emails

CO – 10: Describe the Non Verbal communication and its characteristics & importance.

UNIT I THEORY OF COMMUNICATION**12**

Basics of communication, definitions of communication, human communication, communication situation, elements of communication, the communication process, business communication, importance of business communication, communication channels, barriers to effective communication: physical, physiological and psychological barriers, overcoming communication barriers.

UNIT II LISTENING**12**

Hearing v/s listening, how to shift from “hearing” to “listening”?, a listener or not?, characteristics of good and poor listeners, causes of poor listening, listening as a business tool,

listening for fact v/s listening for overall comprehension, kinds of listening, kinds of listening, approaches to listening, barriers to effective listening

UNIT III EFFECTIVE ORAL COMMUNICATION 12

Effective oral communication, interviewing, negotiation, communication in groups, presentations, types of presentations, audience analysis, formulating core statements, organizing and structuring a presentation, supporting the idea, visual aids, selecting the right medium, non-verbal dimensions of a presentation.

UNIT IV WRITTEN AND NONVERBAL COMMUNICATION 12

Reading as a process of decoding messages, importance of reading, types of reading, reading techniques - SQ3R, KWL table and SARAS. Speed reading, factors that impact reading, factual comprehension and inferential comprehension, business correspondence, types of letters, concept of business correspondence, importance of business correspondence, qualities of a business letter, parts of a business letter, 7Cs of business correspondence, business correspondence- the myth.

UNIT V BUSINESS CORRESPONDENCE 12

Through emails, Pleasant and Unpleasant Letters, Pleasant Letters and Unpleasant Letters, Understanding the Audience, Factors that Help in Understanding the Audience, Organizing the Message, Writing Pleasant Letters, Writing Unpleasant Letters, Persuasive Letters and Memos, Persuasive Letters, Understanding the Product, Customer and Purpose, Organizing the Message, Different Types of Persuasive Letters, Memos, Reports, Elements of a Report, Writing a Report, Using Graphics to Manage Data, Types of Visual Aids, Selection of Visual Aids, Non-verbal Communication, Characteristics of Nonverbal Communication, Conventional and Nonconventional Nonverbal Communication, Conventional Nonverbal Communication, Nonconventional Nonverbal Communication, Dress, Interaction of Verbal and Nonverbal Communication, Language Skills for Effective Communication.

Total: 60 hours

TEXT BOOKS:

1. Sharan J. Generson and Steven M. Gerson, Technical Writing – Process and Product, Pearson Education, 2000.

2. Raymond V. Lesikar, John D. Pettit and Mary E. Flatley Lesikar, Basic Communication, Tata McGraw Hill 8th Edition, 1999.
3. Stevel. E. Pauley, Daniel G. Riordan, Technical Report Writing Today, AITBS Publishing & Distributors, India 5th edition, 2000.

REFERENCE BOOKS:

1. Francis Soundararaj, Speaking and Writing for Effective Business Communication, MacMillan Publication, 2009.
2. Madhukar, Business Communication, Vikas Publishing House, 2009
3. Urmila Rai, Business Communication, Himalaya Publishing house, 2008
4. McGraith, Basic Managerial Skills for all, Prentice Hall of India, 6th Edition, 2002.

15MBS011 INTERNSHIP WITH VIVA VOCE

Course Outcomes:

The students will be able to:

CO – 1: Design to organizations of all types and sizes by managing critical short-term projects.

CO – 2: Create solutions to key challenges.

CO – 3: Design marketing strategies.

CO – 4: Leverage business analytics with key strategic decision makers.

CO – 5: Analyze lay the foundation for strong relationships and subsequent job offers.

CO – 6: Choose a variety of ways to engage in experiential learning.

CO – 7: Classify knowledge and skills acquired in the classroom to a professional context.

CO – 8: Assess what skills are transferable to new contexts.

CO – 9: Explain and reflect on the quality of the contribution interns have made to the organization.

CO – 10: Arrange refine and reassess interns' own career goals as a result of the experience.

Course Objective:

- To expose the students to the principles of scientific methodology in business enquiry
- To develop analytical skills of business research
- To develop independent thinking for critically analyzing research reports.
- To able to identify the overall process of designing a research study from its inception to its report.
- To familiarizewith ethical issues in educational research, including those issues that arise in using quantitative and qualitative research.

Course Outcomes:

The students will be able to:

CO – 1: Describe the various kinds of research questions and research design

CO – 2: Choose the qualitative, quantitative and mixed methods research, as well as relevant ethical and philosophical consideration

CO– 3: Practice anddesign a good quantitative purpose statement and good quantitative research questions and hypotheses

CO – 4: Order and familiarize with best practices in conducting a qualitative interview and observation.

CO – 5: Develop how to distinguish between a population and a sample and to determine the sample size

CO –6: Identify the various types of quantitative sampling techniques and conditions to use.

CO–7: Sketch the various steps involved in coding qualitative data.

CO– 8: Infer practical exposure on application of various statistical tools to test the hypothesis & drawing inferences

CO – 9: Summarize on writing different types of report

CO – 10: Develoo independent thinking for critically analysing research reports.

Business & Management Research – Research Characteristics – Research Approaches – Types of Research – Research as Process and Strategy – Applied & Basic Research Process – Problem Identification - Theoretical Framework/'Literature Survey – Scope and objectives – Research Design – Hypothesis Development – Hypothesis Testing – Exploratory Descriptive Studies – Cross Sectional & longitudinal studies

UNIT – II DATA COLLECTION 12

Data – Methods of data collection – Questionnaire design, interview, scheduling, and e-questionnaire design, guidelines for information collection questionnaire convention and pre-testing, panel research, major qualitative research techniques, scaling techniques – nominal, ordinal, ratio, interval scales.

UNIT – III SAMPLING AND HYPOTHESIS TESTING 12

Sampling techniques, probability and non-probability sampling – sample size determination for survey research, confidence in determining sample size – Hypothesis testing, procedures for pilot study – sampling error – sampling techniques for marketing – HR and other management areas.

UNIT – IV ANALYSIS 12

Data Analysis – Editing and coding of data univariate, bivariate and multivariate analysis chi square test – correlation and regression analysis – ANOVA – elementary concepts of factor and cluster analysis –use of MS excel, SPSS in data analysis.

UNIT – V REPORT 12

Introduction - Purpose of a Written Report – Basics of a Written Report – Types – Important Parts – Title, Table of Contents – Synopsis, bibliography - Introductory Section – Research Design - Result Section – Recommendation & Implementation Section.

Total: 60 hours

TEXT BOOKS:

1. Donald R. Cooper, Pamela S. Schindler and J K Sharma, Business Research methods, 11th Edition, Tata McGraw Hill, New Delhi, 2012.
2. Alan Bryman and Emma Bell, Business Research methods, 3rd Edition, Oxford

University Press, New Delhi, 2011

REFERENCES:

1. Uma Sekaran and Roger Bougie, Research methods for Business, 5th Edition, Wiley India, New Delhi, 2012.
2. William G Zikmund, Barry J Babin, Jon C.Carr, AtanuAdhikari, Mitch Griffin, Business Research methods, A South Asian Perspective, 8th Edition, Cengage Learning, New Delhi, 2012.

Course Objective:

- Information technology is fundamental to the practice of general management.
- To understand and able to build an understanding of the fundamental concepts of ERP system.
- Business process knowledge has become a prerequisite to conducting sound business using the computer system as a tool to aid decision making.
- To learn ERP architecture, and working of different modules in ERP.
- To understand to develop and design the modules used in ERP systems, and can customize the existing modules of ERP systems.
- Core activities in the systems development process; To learn about BPR concepts.
- Cultivate skills and experience in the development and implementation of ERP projects.
- To provide an understanding of the managerial issues involved in the design and implementation of Enterprise Resource Planning Systems.
- To focus on the benefits that may be realized from an ERP system and on the management of benefits from the ERP system.

Course Outcomes:

The students will be able to:

CO – 1: Describe how an integrated information system can support effective and efficient business processes.

CO – 2: Comprehend the technical aspects of ERP systems.

CO – 3: Formulate the modules distinguishing the characteristics of ERP software

CO – 4: Analyze mapping of business processes using process mapping techniques;

CO – 5: Identify concepts of re-engineering and how they relate to ERP system implementation.

CO – 6: Tell the steps and activities in the ERP life cycle.

CO – 7: Plan and identify and describe the typical functionality in an ERP system;

Learning Private Limited, First Edition 2013.

2. Alexis Leon, Enterprise Resource Planning, Tata McGraw Hill, Second Edition, 2011.
3. Magal, S.R. and Word, J., Integrated Business Processes with ERP Systems, John Wiley & Sons, 2011.
4. Jaiswal, Textbook of Enterprise Resource Planning, MacMillan Publishers India, 2005.

REFERENCE BOOKS:

1. Jonathan Blain &Bernaid Dodd, Administering SAP R/3: The HR – Human Resources Module, Prentice Hall of India Pvt Ltd: 1999.
2. Ellen F. Monk and Bret J Wagner, Thomson, Concepts in Enterprise Resource Planning, Course Technology, India Edition, 2007

15RMBS41 PROJECT WORK

Course Outcomes:

The students will be able to:

CO – 1: Relate in-depth understanding of general management and the business/management environment.

CO – 2: Create and develop deep understanding of the interaction between operational and strategic management.

CO – 3: Analyze and solve problems on an executive level, demonstrating critical and creative thinking.

CO – 4: Design the general (core) management skills in the chosen area of specialisation.

CO – 5: Match in-depth knowledge of the management issues characteristic of the area of specialization and the chosen elective modules.

CO – 6: Manage business problem in new and unfamiliar circumstances through the integration of relevant disciplines.

CO – 7: Design strategies to solve business problems and pursue opportunities.

CO – 8: Relate the ability to communicate formulated strategies in a clear and concise manner.

CO – 9: Conclude the knowledge and skills acquired in the classroom to a professional context.

CO – 10: Interpret a variety of ways to engage in experiential learning.

Course Objective:

- To explore the fundamental concepts of transportation and distribution management
- To gain knowledge in network planning, routing and scheduling and application of IT in transportation and distribution management.

Course Outcomes:

The students will be able to:

- CO – 1: Design well versed in distribution techniques in the supply chain.
- CO – 2: Develop the various distribution network models
- CO –3: Make use of the advantages and disadvantages of the various models.
- CO – 4: Plan for the different distribution networks and the decisions concerning the distribution networks.
- CO – 5: Gain knowledge about the distribution requirements planning.
- CO – 6: Rewrite the role of transportation in logistics and business.
- CO – 7: Predict the scope and relationship of transportation with other business functions
- CO – 8: Illustrate on the various modes of transportation and the selection decisions.
- CO – 9: Gain well verse knowledge on vehicle routing and scheduling.
- CO – 10: Identify the issues involved in international transportation.
- CO – 11: Explain about the transportation management systems
- CO – 12: Identify versed with the transportation rate negotiation.

UNIT I DISTRIBUTION**12**

Role of Distribution in Supply chain, Distribution channels – Functions, resources, Operations in Distribution, Designing Distribution network models - its features - advantages and disadvantages

UNIT II PLANNING**12**

Distribution network planning, Distribution network decisions,
Distribution requirement planning (DRP)

Course Objective:

- To describe the various streams of the supply chain
- To describe the drivers of the supply chain
- To describe the concepts employed in the supply chain
- To explain about the strategies employed in the supply chain

Course Outcomes:

The students will be able to:

CO – 1: Identify the concepts of supply chain.

CO – 2: Classify logistics and supply chain management

CO –3: Identify the difference between service and manufacturing supply chains.

CO – 4: Analyze supply chain dynamics and various issues of supply chain performance.

CO – 5: Relate the supply chain processes.

CO – 6: Develop the supply chain strategies.

CO – 7: Plan about supply chain outsourcing.

CO – 8: Select the various drivers of supply chain performance.

CO – 9: Identify about demand forecasting and learn about the various forecasting techniques.

CO – 10: Design about sales and operations planning process

UNIT I CONCEPTS OF SUPPLY CHAIN**12**

Service and manufacturing supply chain dynamics - Evolution of supply chain management - Multiple views and flows - Service supply chains - Manufacturing supply chains - Measures of supply chain performance - Bullwhip effect

UNIT II SUPPLY CHAIN PROCESSES AND STRATEGIES**12**

Integrated supply chains design - Customer relationship process - Order fulfillment process - Supplier relationship process - Supply chain strategies - Strategic focus - Mass customization -

Course Objective:

- To explain a clear view of customer behaviour in different markets
- To describe customer retention in different markets
- To formulate a different set of strategy in building customer loyalty.

Course Outcomes:

The students will be able to:

- CO – 1: Identify the various basic issues in CRM.
- CO – 2: Explain customer relationship and business intelligence
- CO – 3: Relate CRM as a business strategy.
- CO – 4: Categorise about the various types of CRM.
- CO – 5: Inspect the role of CRM in building customer relationships.
- CO – 6: Design CRM value chain.
- CO – 7: Appraise the various stages of customer relationships.
- CO – 8: Design and prepare CRM business plan.
- CO – 9: Describe how to create CRM solutions for an organization.
- CO – 10: Evaluate CRM performance metrics.
- CO – 11: Design best practices in outsourcing CRM.
- CO – 12: Identify the basics of supplier relationship management (SRM).
- CO – 13: Create various systems used in SRM.
- CO – 14: Identify the various challenges in SRM.
- CO – 15: Express about an effective supplier relationship.
- CO – 16: Operate on various technologies and tools used in SRM.

UNIT I INTRODUCTION**12**

Introduction to CRM – The New Focus on Customer Loyalty – Customer Intimacy – CRM & Business Intelligence – CRM as a Business Strategy – Nature, Context & Results of CRM

1. Judith W Kincaid, Customer Relationship Management – Getting it Right, Library of Congress (HP), 2003
2. Satish K. Kapoor and PurvaKansal, Marketing Logistics - A Supply Chain Approach, Pearson Education, 2003.
3. Kotler, Marketing, Free Press, 1999.

Mapping for supply chain management, Lean thinking and supply chain management

UNIT – V SUPPLY CHAIN PERFORMANCE MEASUREMENT

12

Measurement of supply chain performance.

Total: 60 hours

TEXT BOOKS:

1. Bowersox & Closs, Logistical Management, McGraw-Hill Companies, 1996.
2. R.H. Ballou, Business Logistics Management, Prentice-Hall, 2004.

REFERENCES:

1. Sunil Chopra and Peter Meindl, Supply Chain management - Strategy, Planning and Operation, Pearson Education 2002
2. David Simchi-Levi, Philip Kaminsky and Edith Simchi-Levi, Designing & Managing The supply Chain - Concepts, Strategies & Case Studies, Tata McGraw-Hill, 2004
3. Donald J. Bowersox and David J. Closs, Logistical Management - The Integrated Supply chain Process, Tata McGraw-Hill, 2004.
4. Rangaraj, Supply Chain Management For Competitive Advantage, Tata McGraw-Hill, 2009
5. Mandyam M. Srinivasan, Streamlined : 14 Principles for building & Managing Lean Supply Chain, Thomson, 2004
6. John T. Mentzer, Fundamentals of Supply Chain Management - Twelve Drivers of Competitive Advantage, Sage Publications, 2007
7. Levi, Designing & Managing the Supply Chain, Tata McGraw-Hill, 2008.
8. Mohanty, Essentials of Supply Chain Management, Jaico Books, 2009.

Course Objective:

- To explain the various technological aspects that are described in the different logistical background
- To explain the real time description updated technologies in the logistics sector and supply chain industry

Course Outcomes:

The students will be able to:

CO – 1: Explain about eSCM, benefits and communication networks.

CO – 2: Explain about data security in communication networks.

CO –3: Explain about the various e-commerce models.

CO – 4: Explain about the various enterprise information systems and their benefits.

CO – 5: Explain the classification of enterprise information systems.

CO – 6: Explain about information architecture.

CO – 7: Explain the framework for managing supply chain information.

CO – 8: Explain about the various information systems development methodologies.

CO – 9: Explain about the various enterprise architectures.

CO – 10: Explain the various information system deployment methods.

CO – 11: Explain the methods of managing information systems risk.

CO – 12: Explain the basics of information integration.

UNIT I ELECTRONIC SCM, COMMUNICATION NETWORKS 12

Introduction eSCM - eSCM framework - Key success factors for eSCM - Benefits of eSCM- Positioning information in Logistics - Strategic information linkage - Supply chain communication networks - Role of communication networks in supply chains - Overview of telecommunication networks –EDI - Data security in supply chain networks - Overview of internet able models

UNIT II ENTERPRISE INFORMATION SYSTEMS 12

Overview of enterprise information systems - Information functionality and principles -

Introduction enterprise information systems -Classification of enterprise information systems
- Information architecture -Framework for managing supply chain information - Describeion
on popular enterprise application packages -Benefits of enterprise information systems

Unit III SCM SYSTEMS DEVELOPMENT, DEPLOYMENT AND 12
MANAGEMENT

Stakeholders in supply chain information systems - Stakeholders in SCM - Stakeholders in
supply chain information systems - Information systems development- Logistics information
systems design- Defining enterprise architecture - Choosing appropriate system development
methodologies - Adopting relevant systems development model

UNIT IV DEPLOYMENT AND MANAGEMENT 12

Information systems deployment - IT Operations and infrastructure management - Portfolio,
programme and project management - Management of risk - Management of value

UNIT V INFORMATION INTEGRATION 12

Enterprise application integration and supply chain visibility - Enterprise application
integration - Supply chain visibility - Supply chain event management -Supply chain
performance -Planning and design methodology - Problem definition and planning - Data
collection and analysis - Recommendations and implementation -Decision support systems

Total: 60 hours

TEXT BOOKS:

1. Bowersox&Closs, Logistical Management, McGraw-Hill Companies, 1996.
2. R.H.Ballou, Business Logistics Management, Prentice-Hall, 2004.

REFERENCE BOOKS:

1. Strauss,E-Marketing, 4/e, Pearson Education 2008
2. Chaffey, E- Business and E- Commerce Management, 3/e, Pearson Education 2008
3. Blanchard, Logistics Engineering & Management, 6/e, Pearson Education 2008
4. Statistics for Managers Using MS Excel, 4/e, Levine, Pearson Education 2007
5. Donald J. Bowersox and David J. Closs, Logistical Management - The Integrated Supply chain
Process, Tata McGraw-Hill, 2004

Course Objective:

- To prepare students successfully implement a contract logistics and closed supply chain in Retail, FMCG and Ausectors.
- To explain the concept and principle of contract logistics and closed supply chain

Course Outcomes:

The students will be able to:

- CO – 1: Explain the basics of contract logistics.
- CO – 2: Explain about the third party logistics industry
- CO –3: Explain contract logistics.
- CO – 4: Explain about the third party logistics providers.
- CO – 5: Explain about closed loop supply chains.
- CO – 6: Explain and learn the closed loop supply chain models.
- CO – 7: Explain strategic issues involved in closed loop supply chains.
- CO – 8: Explain about the business and markets for closed loop supply chains.
- CO – 9: Explain the reasons for using reverse logistics.
- CO – 10: Explain the emerging trends in closed loop supply chains.
- CO – 11: Explain the systems and technologies used in closed loop supply chains.
- CO – 12: Explain the impact and value of advanced logistics
- CO – 13: Explain the various reverse logistics processes.
- CO – 14: Explain the Make in India concept and its impact on the GDP growth.
- CO – 15: Explain the contemporary issues in third party logistics.

UNIT I CONTRACT LOGISTICS**12**

Third party logistics industry overview - A framework for strategic alliances - Evolution of contract logistics - Types of third party logistics providers – Auto, FMCG and Retail-Third party services and integration

UNIT II CLOSED LOOP SUPPLY CHAINS AND LOGISTICS**12**

Introduction closed loop supply chains and logistics – Logistics and closed loop supply chain service - Overview of return logistics and closed loop supply chain models – Introduction product returns - Product Vs Parts returns - Strategic issues in closed loop supply chains

UNIT III BUSINESS AND MARKET 12

Overview - Introduction life cycle management - Trends and opportunities – Au Warranty management, return process and benchmarks - Market overview - Reasons for using reverse logistics - General characteristics - Consumer goods Depot repair and value added services - Operating dynamics - Competitive evaluation - Secondary markets and final disposal.

UNIT IV EMERGING TRENDS 12

Emerging trends in Retail, FMCG and Au sectors- Systems and technology - For consumer goods operations, High tech logistics system - Impact and value of advanced logistics -

UNIT V MANAGING PROCESSES 12

Managing processes - Step by step process - Use of third party service providers - Additional factors – Contemporary issues – Make in India and its impact on Countries GDP and Economic Growth.

Total: 60 hours

TEXT BOOKS:

1. Janat Shah, Supply Chain Management: Text and Cases, Pearson Education India, 2009
2. John Manners-Bell, Logistics and Supply Chains in Emerging Markets, Kogan Page, 2014.

REFERENCE BOOKS:

1. Coyle et.al, Management Of Transportation, 7th Edition, Cengage Learning, 2011
2. D. F. Blumberg, Reverse Logistics & Closed Loop Supply Chain Processes, Taylor and Francis, 2005
3. Hsin-I Hsiao, Wageningen, Logistics Outsourcing in the Food Processing Industry, Academic Pub, 2009.
4. Surendra M. Gupta, Sustainability in Supply Chain Management Casebook: Applications in SCM, McGraw Hill, 2013

Course Objective:

- To successfully implement a green supply chain in any industry.
- To teach the implication of today's most pressing environmental issues
- To explain how green practices can actually save money, increases efficiency and reduce delivery time.

Course Outcomes:

The students will be able to:

CO – 1: Describe the concepts, and principles that underlie sustainability in supply chains, reverse logistics and the environment, especially with regard the management of recycling and closed-loop-manufacturing, and logistics systems.

CO – 2: Analyse the impact of logistics and supply chain on environment and appreciate the importance of environmental and waste management issues in logistics and supply chain from the strategic perspective.

CO – 3: Determine the performance measures necessary capture sustainable supply chain practices.

CO – 4: Explain and apply the environmental assessment methods and tools and international environmental standards such as ISO 14001 in supply chains.

CO – 5: Interrelate the life cycle assessment methods and tools with strategic decision making regarding the environment.

CO – 6: Explain recent trends in green legislation with respect supply chains.

CO – 7: Explain the environmental impacts of supply chains and hence the need for green supply chains.

CO – 8: Apply related methodologies and tools the design of green supply chains and the improvement of existing supply chains.

CO – 9: Integrate green practices, based on green legislation, on supply chain activities for sustainable development.

CO – 10: Describe the information systems procurement and apply them in a supply chain management context.

UNIT – I INTRODUCTION GREEN SCM 12

Green Supply Chain Management Best Practices-Green Sustainability-Carbon Strategies-Green Supply Chain Management-Tools for Quality Improvement-Supplier Assessments for Environmental and Social Responsibility-Green Supply Chain IT Systems-Carbon Accounting, Sustainability, Renewable Energy, Greenhouse Gases (GHG), Water and Land Use

UNIT – II SUSTAINABLE DEVELOPMENT 12

Sustainable Building-Building Green Factories-Corporate Social Responsibility – Environmental Issues -Carbon Accounting--Climate Change Regulations, Impacts and Strategies-State and Federal Regulations-Corporate Sustainability Strategies-Global Warming Perspectives-Carbon Credits-Corporate Social Responsibility-Green Power and Renewable Energy Credits-Green Customer Expectations-How Stay Current, Up Date and Relevant-Manufacturing, Demand, Factory, Materials and Network Planning

UNIT – III GREEN MANUFACTURING 12

Green Forecasting and Strategies-Green Product Lifecycle Management (PLM)-Outsourcing in a Green World-Green Building and Leasing-Green Manufacturing Systems--Supplier Management and Purchasing Essentials-Green Purchasing Policies-Environmentally Preferred Purchasing-Inventory Management-Establishing Procurement Plans-Selecting Potential Vendors-Purchasing Green IT Systems-Transportation, Warehousing and Distribution

UNIT – IV GREEN TRANSPORTATION MANAGEMENT 12

Green Network Analysis-Green Transportation-Expediting Deliveries and Conducting Follow-Up-Green Network Optimization-Green Warehousing--Green Distribution and Transportation With IT Systems-Direct Store Delivery, Returns and Recycling-Green Supplier Network-Direct Store Delivery-Supplier Sustainability Scorecard

UNIT – V GREEN IMPROVEMENT PROCESS 12

Green Continuous Improvement Process-Green Indirect Purchasing-Product Naming-End of Lifecycle-Value Enhancement Strategies-Green Supply Chain Risk Management -Supplier Product Issues-Product Origin and Traceability-Green Business Intelligence-Developing Financing and Leveraging Strategies for Purchasing.

Total: 60 hours

TEXT BOOKS:

1. Wang, Green Supply Chain Management: Product Life Cycle Approach, McGraw Hill publishing, 2011
2. John Wilkerson, Green Supply Chain Management Book Series: Greening the Federal Supply Chain (Environmental & Sustainability Policy) Implementation Guide, Asta Publication, 2011

REFERENCES:

1. VivekSood, Green Supply Chains: An Action Manifesto by Stuart Emmett, Wiley publications, 2010
2. Hsiao-Fan Wang, Green Supply Chain Management: Product Life Cycle Approach, 2009.
3. Surendra M. Gupta, Sustainability in Supply Chain Management Casebook: Applications in SCM, McGraw Hill, 2013

Course Objective:

- To provide a mutually explaining of how the customer uses its goods over the course of a year. Vendor managed inventory (VMI) implementations can be challenging. They not only require collaboration between the retailer and manufacturer;
- To integrate with technology and operations platforms.

Course Outcomes:

The students will be able to:

CO- 1 : Survey and analyse cooperation between different parts of an organisation as well as between different companies within a supply chain for physical products

CO- 2 : Explain the impact that the type of demand for goods and services (dependent and independent) has on the inventory management system.

CO- 3: Explain the inventory management models that help plan the timing and volume of inventory orders

CO- 4: Evaluate the efficiency of Vendor Managed Inventory.

CO- 5: Describe operational procurement processes and be able to explain procurement related terms

CO- 6: Describe the role of information technology in managing inventories

CO- 7: Describe the rationale behind the application of vendor based inventory.

CO- 8: Demonstrate how inventory control fits into the logistics organization.

CO- 9: Learn how to use physical inventories and cycle counting

CO- 10: Incorporate the concepts of supply chain integration in real time business

UNIT – I SCM**12**

What is SCM- Logistics Network Configuration-Model development-Model validation-Impact of aggregating customer & products on model accuracy-Number of required distribution centers-Inventory Management & Risk Pooling- Centralized versus decentralized systems-Managing inventory in the supply chain-Practical issues. Approaches forecast future demand-Inventory Management & Risk Pooling-The Value of Information

UNIT – II SUPPLY CHAIN COORDINATION STRUCTURES 12

The bullwhip effect - Information sharing & decision rights-Centralized and decentralized decision-making and performance impact-The Value of Information-Effective forecasts-Information for the coordination of systems-Locating desired products-Lead-time reduction-Information and supply chain trade-offs-the Value of Information-Supply Chain Integration: Implications of Demand and Supply Uncertainty

UNIT – III SUPPLY CHAIN INTEGRATION 12

Push, pull, and push-pull systems-Demand-driven strategies-Impact of the Internet on supply chain strategies-Distribution strategies-Centralized versus decentralized control-Central versus local facilities-strategic Alliances-Framework for strategic alliances-Third-party logistics-Retailer-Supplier Partnerships-Distributor integration-Procurement and Outsourcing Strategies-Outsourcing benefits and risks-A Framework for Buy/Make Decisions-E-Procurement-A Framework for E-Procurement-Online Marketplaces

UNIT – IV SUPPLY CHAIN DESIGN 12

Design for logistics-Supplier integration in new product development-Mass customization-Coordinated Product and Supply Chain Design-Customer Value and Supply Chain Management-Dimensions of customer value-Strategic pricing-Customer value measures

UNIT – V INFORMATION TECHNOLOGY 12

IT and customer value- Information Technology for SCM-Goals of IT for SCM-Standardization-IT infrastructure-SCM system components-Integrating IT for SCM-decision Support Systems for SCM

International Issues in Supply Chain Management-Introduction global SCM-Risks and advantages of international supply chains-Issues in international supply chain management-Regional differences in Logistics

Total: 60 hours

TEXT BOOKS:

1. S Jaya Krishna, Supplier Relationship Management: An Introduction Paperback, ICFAI press 2005
2. Dominika Spychalska, Vendor Managed Inventory: Exploring objectives, benefits and shortcomings of the business concept, Lap Lambert Academic Publishing, 2010

REFERENCES:

1. SilaÇetinkaya& Chung-Yee Lee, Stock Replenishment and Shipment Scheduling for Vendor-Managed Inventory Systems, Management Science, 2008
2. Tempelmeier, Inventory Management in Supply Networks—Problems, Models, Solutions, Norderstedt, 2006.

Course Objective:

- To relate the strategy in supply chain management for a seamless integration of the distribution channels.
- To explain how technology can ease the cost and efficiency of the SCM of services.
- To realize the importance of distribution in the services marketing.

Course Outcomes:

The students will be able to:

CO– 1: Differentiate the difference between goods and services.

CO– 2 : Plan the SCM aspects with reference to non- profit organization and profit organization.

CO– 3: Explain the importance of channel members.

CO– 4: Explain the logistical and facilitating functions of the intermediaries.

CO– 5: Eliminate the vertical and horizontal conflicts in channel.

CO– 6: Explain the o reach the consumers effectively.

CO– 7: Explain the use of technology in the distribution chain.

CO– 8: Create a cost effective integration of channel partners.

CO– 9: Make use of the contemporary techniques in service marketing.

CO– 10: Explain the trends in service marketing.

UNIT I SERVICES MARKETING AND SCM 12

Services Marketing, Channels & Supply Chain Management: The Difference Between Services and Goods-Services Marketing: The Difference Between Services and Goods- How Non-Profit Marketing Differs from For-Profit Marketing

UNIT II MARKETING CHANNEL 12

Definition and Function in the Marketplace- Channel Intermediaries: Definition and Function in BusinessChannel Intermediaries: Definition and Function in Business- physical distribution strategy, logistical and facilitating functions.

UNIT III CHANNEL CONFLICT 12

Horizontal & Vertical Conflict- pricing, distribution and logistical operations. The channel members: goal- comprehensive channel partnership-Eliminate conflict-drive product efficiently consumers.

UNIT IV SCM TECHNOLOGY 12

Technology, Measurement, Relationship & Material Integration-Distribution cost-efficient integration of the distribution chain

UNIT V LATEST TRENDS 12

Latest trends in SCM for services marketing, Contemporary Techniques for Services Marketing

Total: 60 hours

TEXT BOOKS:

1. David Simchi-Levi, Philip Kaminsky, Designing and Managing the Supply Chain, Edith Simchi-Levi, 2001.
2. Robert Monczka, Robert Handfield, Larry Giunipero, James Patterson, Purchasing and Supply Chain Management, McGraw Hill, 2011
3. Alan Harrison and Remko Van Hoek, Logistics Management and Strategy: Competing through the Supply Chain, McGraw Hill, 2011

REFERENCE BOOKS:

1. F. Robert Jacobs, William Berry, D. Clay Whybark, Manufacturing Planning and Control for Supply Chain Management, Thomas Vollmann, 2008.
2. Arjan J. Van Weele, Purchasing and Supply Chain Management: Analysis, Strategy, Planning and Practice, Nichole, 2011.
3. Shoshanah Cohen and Joseph Roussel, Strategic Supply Chain Management: The Five Core Disciplines for Top Performance, 2008.
4. Donald Bowersox, David Closs, M. Bixby Cooper, Supply Chain Logistics Management, McGraw Hill, 2011.
5. Sunil Chopra and Peter Meindl, Supply Chain Management: Strategy, Planning, and Operation, McGraw Hill, 2012.

Course Objective:

- To explain e-business, business over web and web hosting, retail e-business, e-commerce industry framework, electronic payment systems and electronic fund transfer.

Course Outcomes:

The students will be able to:

CO – 1:

Recognize the impact of Information and Communication technologies, especially of the Internet in business operations.

CO – 2: Recognize the fundamental principles of e-Business and e-Commerce.

CO – 3: Distinguish the role of Management in the context of e-Business and e-Commerce

CO – 4: Explain the added value, risks and barriers to the adoption of e-Business and e-Commerce

CO – 5: Examine applications of e-Commerce in relation to the applied strategic

CO – 6: Use tools and services of the internet in the development of a virtual e-commerce site

CO – 7: Explain the various characteristics of electronic payment systems.

CO – 8: Explain the security protocols and the issues in internet security.

CO – 9: Describe various legal and ethical issues specific to e-Business.

CO – 10: Explain the privacy issues specific to e-business.

UNIT – I INTRODUCTION E-BUSINESS**12**

Overview of E-Business; Fundamentals, E-Business framework; E-Business application; Major requirements in E-Business; Emerging trends and technologies in E-Business; From E-Commerce to E-Business.

UNIT – II INTERNET AND E-BUSINESS**12**

Brief history of the Internet; Introduction to internet and its application; Intranet and Extranets; World Wide Web; Internet Architectures; Creating Web Pages using HTML; Development of e-business in parallel to that of the WWW; Business Applications on Internet.

UNIT – III E-BUSINESS MODELS 12

Elements of Business models; Categories of E-business (B2B; B2C models etc.); Business-to-Business-Hubs, Market Places, Business-to-Business Exchange, Business-to-Consumer, Consumer-to-consumer, Business-to-Government, Government-to-Government.

UNIT – IV E-COMMERCE 12

Origin and Need of E-Commerce; Factors affecting E-Commerce; Business dimension and technological dimension of E-Commerce; E-Commerce frame work.

E-Commerce and On-line publishing approach from customer prospective; Supply chain management fundamentals; Intranets and Supply Chain Management; Managing retail supply chains, Supply chain Application Software.

UNIT – V ELECTRONIC DATA INTERCHANGE (EDI) 12

Electronic Data Interchange (EDI); EDI definition; Overview of advantages and disadvantages; EDI application in business development; EDI technology.

Total: 60 hours

TEXT BOOKS:

1. Chaffey, E-Business& E- Commerce Management,3rd edition, Pearson Edu, 2008.
2. R. Kalakotta& M. Robinson, “E-Business: Roadmap for Success”, Pearson Education Reprint New Delhi, 2009.

REFERENCES:

1. Rayudu C. S. e-Business, Himalaya Publishing House, 2007.
2. Bhaskar, E-Commerce, Tata McGraw-Hill, 2008.
3. Whitley, David E-commerce strategy, technology and applications, Tata McGraw Hill, 2006.

Course Objective:

- To provide the participants with a good knowledge on Export trade, types of trades, formalities for trade, legalities of export trade and the documentation process of it.

Course Outcomes:

The students will be able to:

CO – 1: Identify and select export product

CO – 2: List the methods of marketing

CO – 3: Explain the process for obtaining quality certification

CO – 4: List the types of marine insurance policies

CO – 5: State the export and import procedure.

CO – 6: Explain the role of clearing and forwarding Agents

CO–7: State the custom formalities of imports

CO–8: Outline policy and institutional framework for exports and imports

CO–9: List the export promotion council and commodity boards

CO–10: List the import promotion council and commodity boards

UNIT – I EXPORT**12**

Meaning and Definition of Export – Classification – Strategy and Preparation for Export Marketing –Registration Formalities –Export Licensing – Selection of Export Product – Identification of Markets – Methods of Exporting – Payment Terms – Letter of Credit – Liberalization of Imports – Negative List for Imports – Categories of Importers

UNIT – II DOCUMENTATION**12**

Aligned Documentation system – Commercial Invoice – Shipping Bill – Certificate of Origin – Consular Invoice – Mate’s Receipt – Bill of Lading –GR Form – ISO 9000 – Procedure for obtaining ISO 9000 – BIS 14000 Certification – Types of Marine Insurance Policies – Import Documents – Transport Documents – Bill of Entry – Certificate of Inspection – Certificate of Measurements – Freight Declaration

UNIT – III EXPORT CONTRACT AND SHIPMENT**12**

Course Objective:

- To provide the participants with a good knowledge of airfreight operations, services and management that can support them in various business functions and roles such as operations, customer service, account management and sales.
- To create awareness about the Air Cargo management.
- To provide general information or a framework on the setup of air cargo processes, for business.

Course Outcomes:

The students will be able to:

- CO – 1: Learn about the airports and aircrafts.
- CO – 2: Explain the basic air cargo terminologies and phonetic alphabets.
- CO – 3: Explain about the various participants in air cargo transportation.
- CO – 4: Explain the role of a custodian in air cargo.
- CO – 5: Explain the role of freight forwarders and customs brokers.
- CO – 6: Know about the various IATA and ICAO airport and airline codes.
- CO – 7: Explain about the air transport and IATA.
- CO – 8: Explain the roles of GSSA and the GHA.
- CO – 9: Explain about air mode of transportation.
- CO – 10: Learn about the various aspects air cargo transport.
- CO – 11: Know about the roles of the customs and the government in air transport.
- CO – 12: Explain the advantages and disadvantages of air cargo
- CO – 13: Explain the roles and functions of IATA, ICAO
- CO – 14: Explain the roles and functions of AAI, DGCA
- CO – 15: Explain the various documentation required for air cargo.

UNIT I AIR PORTS AND SHIPMENT**12**

Ground Handling Agencies - Air Craft - Advantage of Air shipment - Economics of Air Shipment - Sensitive Cargo by Air shipment - Do's and Don'ts in Air Cargo Business

UNIT II AIR CARGO 12

Air Cargo Console - Freight of Air Cargo - Volume based Calculation of Freight - Weight based Calculation of Freight - Import Documentation - Export Documentation

UNIT III AIRWAY BILLS 12

Airway Bills - FIATA - IATA - History of IATA - Mission of IATA - Price setting by IATA - Licensing of Agencies - Sub Leasing of Agencies - freight carriers by scheduled freight tonne kilometers flown

UNIT IV CARGO VILLAGE 12

History of Dubai Cargo Village - Location of DCV - Equipment and Handling at DCV - Operations - Advantage of Sea Air Cargo - Why Sea Air Cargo is Cheaper - Why Air freight from Dubai is Cheaper?

UNIT V DG CARGO 12

DG Cargo by Air - Classification and labelling - Types of Labels according Cargo - Samples of Labels - Packing and Transportation of DG Goods by Air

Total: 60 hours

TEXT BOOKS:

1. Yoon Seok Chang, Air Cargo Management, CRC Press, 2015.
2. Xie Chun Xun Zhu, Air Cargo Management Introduction - Aviation Logistics, Management Series (Chinese Edition), Southeast University Press, 2006.
3. Hampton Simon Taylor, Air transport logistics, CRC Press, 2000.

REFERENCE BOOKS:

1. Paul, Air cargo distributions: a management analysis of its economic and marketing benefits, Jackson and William Brackenridge (Gower Press), 1988.
2. Peter S. Smith, Air freight: operations, marketing and economics, Chu (Boston : Kluwer Academic Publishers), 2004.
3. John Walter wood, Airports; some elements of designs and future development, Chu (Boston : Kluwer Academic Publishers), 1981.

Course Objective:

- To explain for satisfaction of the customer who wants. Every commercial organization is to focus on making profit.
- To explain the world class manufacturing strategy within these enterprises because they make their products themselves.

Course Outcomes:

The students will be able to:

CO – 1: Describe on the concepts of World Class Manufacturing.

CO – 2: Identify the layout based on the Strategic decisions, Choice of technology and Automation in Materials handling system

CO – 3: Explain the principle and wastages of JIT

CO – 4: Explain the Kanban system.

CO – 5: Describe on the concepts of quality definition based on the TQM and ISO system

CO – 6: Explain the implementation of quality tools.

CO – 7: Analyze the failure for maintenance using reliability.

CO – 8: Explain the various principles of Total Productive Maintenance (TPM).

CO – 9: Describe on the Flexible Manufacturing System (FMS) and Group Technology (GT).

CO – 10: Evaluate the layout based on cellular manufacturing.

UNIT – I INTRODUCTION**12**

World Class Manufacturing Environment, Imperatives for success, System approach and change in mindset, Strategic decisions in Manufacturing Management, Choice of technology, Capacity and layouts, Automation in Materials handling system

UNIT – II JIT**12**

Principles advocated in Just-in-Time System, JIT Manufacturing System, JIT Pull System, Use of Kanban System, JIT Purchase, Source development, Supply chain Management.

UNIT – III TQM 12

Total Quality Management Philosophy, TQM Principles, TQM Tools, Quality through design, Quality Management System and ISO 9000, QS 9000 etc

UNIT – IV TPM 12

Total productive Maintenance (TPM), Concept of reliability, reliability improvement, Concept of maintainability and Maintainability improvement.

UNIT – V FMS AND GT 12

Concept of Flexible Manufacturing System (FMS) – Group Technology (GT) – Cellular Manufacturing Systems.

Total: 60 hours

TEXT BOOKS:

1. Richard J. Schonberger, World Class Manufacturing, Free Press Publication, 2008.
2. Feld, W. M., Lean Manufacturing Tools, Techniques and How Use Them, St. Lucie Press, Florida, 2000.

REFERENCES:

1. Panneerselvam, R., Production/Operations Management, Prentice Hall of India Pvt Ltd., 2006.
2. Richard J. Schonberger, World Class Manufacturing: The Next Decade: Building Power, Strength, and Value, Free Press Publication, 2013.
3. Besterfiled, et al., Total Quality Management, Pearson Education Asia, 3rd Edition, 2006.

Course Objective:

- To describe the introduction of Multimodal Transportation management and its various distribution models to be discussed in detail through understanding of various tariffs applicable in sea/air/rail/road/pipeline transportation.

Course Outcomes:

The students will be able to:

CO – 1: Describe the various issues in multimodal transportation.

CO – 2: Describe the various participants in multimodal transportation.

CO – 3: Describe the various modes of international multimodal transportation and selection of the modes.

CO – 4: Describe about the multimodal and intermodal transportation.

CO – 5: Describe about the freight costing and pricing.

CO – 6: Describe various issues involved in the rail mode of transportation.

CO – 7: Describe about the air transport and IATA.

CO – 8: Describe about maritime transportation.

CO – 9: Describe about air modes of transportation.

CO – 10: Discuss about the various aspects air cargo transport.

CO – 11: Define about the need of a bill of lading and its legal significance.

CO – 12: Describe about the Indian Multimodal Act

UNIT I MULTI MODAL TRANSPORTATION**12**

Multimodal transportation - Introduction, growth and components, Physical multi modal operations – Interrelationship of transport mode, Specialised container equipments – FCL, LCL and Customs facilitation.

UNIT II MULTIMODAL TRADE ROUTES**12**

Multimodal trade routes – factors affecting Mode and Route choices, Multimodal transport

operators – Types of Vessel Operators –Other provisions through Transport services.

UNIT III CORPORATE STRUCTURES AND PRICING 12

Corporate structures in Multimodal Transport, System required by the Transport Operar, Transport Pricing-Modern Freight Tariffs, Meeting the Demand-Tracking the Container Fleet.

UNIT IV RAIL AND AIR 12

Rail Transport- Railway networks, Air Transport- Airline Schedule Planning, IATA, Maritime industries.

UNIT V CONTRACT 12

International contract of sale-Bill of Lading-Clauses-Way bills-Identity of Carrier-Liability and Insurance-Paperless Trading, Indian Multimodal Act- 1993,Conventions related Multi modal transport-Cargo liability conventions, Conventions relating Dangerous Goods-Cusms conventions-Statutory Regulations and Restrictions-National and International restrictions on the movement of goods-W.

Total: 60 hours

TEXT BOOKS:

1. Hariharan K. V.,A Textbook on Container & Multimodal Transport Management, Shroff Publishers and Distributors Pvt. Ltd, 1st edition, 2002.
2. K. V. Hariharan, Containerisation, Multimodal Transport & Infrastructure Development In India, Shroff Publishers and Distributors Pvt. Ltd, 6thEdition, 1998.
3. K. V. Hariharan, Text Book On Container & Multimodal Transport Management, Pearson Education, 2002.

REFERENCE BOOKS:

1. JotinKhisty C and Kent Lall B, Transportation Engineering: An Introduction, Prentice Hall International, Inc, 1998.
2. Hutchinson B.G, Principles of Urban Transport Systems Planning, McGrawHill Book Company (latest edition), 2013.

Course Objective:

- To discuss about the inland transportation and the logistic avenues in inland transportation management at sea.
- To explain in safety aspects in the inland transportation management, Cost benefit analysis on using inland waterways & latest trends
- To explain about the use of technology to support inland waterways for transportation.

Course Outcomes:

The students will be able to:

CO – 1: Identify the mode of transportation.

CO – 2: Describe the implementation of inland waterways in India

CO – 3: Describe the Bridges & Tunnel system for logistics.

CO – 4: Describe the National regulations for logistics in India.

CO – 5: Explain on the concepts of boating safety.

CO – 6: Identify the special risks that are involved in safety

CO – 7: Analyze the loading and weight distribution.

CO – 8: Describe the various concepts of risk based on the implementation of safety.

CO – 9: Explain on the latest trends and technologies support inland waterways for logistics.

CO – 10: Evaluate the Cost benefit analysis using inland waterways.

UNIT – I MODES OF TRANSPORTS**12**

Sea trade-Role of ocean transport-various modes of transports and its merits and demerits-
Introduction inland waterways in India-development of coastal shipping-nature and scope –
inland waterways - Importance in India- waterways for logistics and supply chain management-
vessel safety on the Inland Waterways.

UNIT – II BRIDGE AND TUNNEL**12**

Bridges & Tunnels-Bridge operations and Use of tunnels -The Rules of the Road-By-laws and
local traffic regulations -National regulations

UNIT – III SAFETY**12**

Boat safety-Use of fire extinguishers-Watertight integrity -Fire hazards, particularly gas and petrol--Refloating after grounding - Personal Safety-Risks involved in the water, including cold shock-Avoidance of personal injury, including crush injuries and threats in water and precaution strategies.

UNIT – IV RISK**12**

Special risks children-Checks be undertaken periodically -Undertake checks be carried out before and whilst running-Common boating terms --Loading and weight distribution-Interaction and canal effect

UNIT – V ENVIRONMENT**12**

Care Of The Environment-Avoiding damage banks, boats, flora and fauna-Pollution avoidance-Consideration for water users –Cost benefit analysis on using inland waterways-latest trends and use of technology support inland waterways for transportation.

Total: 60 hours**TEXT BOOKS:**

1. Derek Lundy, The way of a ship Penguin Random House UK, 2002.

REFERENCES:

1. Walter Havighurst, Voices on the river,, Castle Books, 2009
2. Robin Knox and Johnston ,The Conway History of Seafaring in the Twentieth Century, Potomac Books Inc.,2000
3. Richard Woodman, The history of the ship , Richard Woodman, Lyons Pr,1998

Course Objective:

- To provide comprehensive knowledge about the principles, practices, tools and techniques of Industrial Engineering (IE).
- To introduce students to the basic concepts of layout and production planning.

Course Outcomes:

The students will be able to:

CO – 1: Calculate of Manufacturing lead time based on Work Content and Ineffective Time.

CO – 2: Identify the various productivity measurement based on the application.

CO – 3: Describe the implementation of method study.

CO – 4: Describe the various risk factors of ergonomics.

CO – 5: Explain on the location and layout based on the production system.

CO – 6: Analyze the product layout using Line Balancing

CO – 7: Analyze the failure for maintenance using reliability.

CO – 8: Describe the various principles of Total Productive Maintenance (TPM).

CO – 9: Explain on the various planning method.

CO – 10: Analyze the production system based on the planning methods.

UNIT I INTRODUCTION**12**

Introduction Industrial Engineering (IE) – Evolution of IE – Definition of IE – Productivity – Kinds of Productivity Measures – Work Study – Role of Work Study for Productivity Improvements – Calculation of Manufacturing time based on Work Content and Ineffective Time

UNIT II METHOD STUDY AND ERGONOMICS**12**

Method Study – Process Chart – Outline Process Chart – Flow Process Chart – Principle of Motion Economy – Therbligs – Workplace Design – Ergonomics – Risk Factors: Task and Working Environment (Lightning, Ventilation, Temperature Control, Noise and Vibrations)

UNIT III TIME STUDY (WORK MEASUREMENT)**12**

Time Study (Work Measurement) Techniques – Stop Watch Time Study – Calculation of

Standard Time – Standard data – Method Time Measurement (M-T-M) – Work Sampling

UNIT IV PLANT LOCATION AND LAYOUT 12

Types of Production System – Plant Location – Factors affecting Plant Location – Plant Layout and Material Handling – Types of Plant Layout and Material Handling Equipment – Line Balancing

UNIT V PRODUCTION PLANNING 12

Capacity Planning – Aggregate Planning – Master Production Schedule (MPS) – Material Requirement Planning (MRP) – Production Planning and Control (PPC).

Total: 60 hours

TEXT BOOKS:

1. Mahajan, M. Industrial Engineering and Production Management, Dhanpat Rai & Co, 2005.
2. Telsang, M. T. Industrial Engineering and Production Management, S Chand & company, 2006.

REFERENCE BOOKS:

1. International Labor Office, Introduction Work Study, Geneva, 2006.
2. Panneerselvam, R., Production/Operations Management, Prentice Hall of India Pvt Ltd., 2006.
3. Slack, N., Chambers, S. and Johnson, R., Operation Management, Pearson Education, 2010.
4. Danreid, R. and Sanders, S., Operations Management, John Wiley & Sons, 2009.
5. Buffa, E.S., Modern Production / Operational Management, John Wiley & Sons, 2009.

Course Objective:

- To explain the strategic role of operations management in creating and enhancing a firm's competitive advantages
- To explain the concepts of layout, planning, maintenance, quality and inventory control, material and store management.

Course Outcomes:

At the end of the course, the students will be able to:

CO – 1: Explain about the fundamental production and operations concepts.

CO – 2: Analyze the product layout using Line Balancing

CO – 3: Record knowledge on calculation of capacity

CO – 4: Explain the various planning concepts.

CO – 5: Analyze the failure for maintenance.

CO – 6: Explain the implementation of quality tools.

CO – 7: Explain the implementation of time and motion.

CO – 8: Explain the various risk factors of ergonomics.

CO – 9: Evaluate the selection of vendors.

CO – 10: Evaluate the classification of inventory.

UNIT – I INTRODUCTION OPERATIONS MANAGEMENT 12

Concept of Operations – Functions & Responsibilities of a Production Manager – Relationship with other departments – Production Systems – Plant Location – Factors influencing location – Site selection – Plant Layout – Objective – Principles and criteria of Plant Layout – Types of Layout – Assembly Line Balancing.

UNIT – II CAPACITY PLANNING 12

Capacity Planning – Measurement of Capacity – Capacity change – Make or Buy decision – Production Planning – Meaning – Elements – Importance – Procedure – Process Planning – Routing & scheduling – Production Control – Objectives – Functions involved.

UNIT – III MAINTENANCE MANAGEMENT & QUALITY CONTROL 12

Maintenance Management – Advantages – Polices – Types of Maintenance – Failure Analysis – Total Productive Maintenance – Quality Control – Definition – principles – Statistical Quality Control – Benefits – Control Charts.

UNIT – IV TIME & WORK STUDY 12

Work Study – Objectives –Major components importance – Procedure – Method Study – Scope – Procedure – Micro Motion Study – Work Measurement – Definition – Techniques – Time Study – Ergonomics.

UNIT – V VENDOR DEVELOPMENT & SRES LOCATION 12

Vendor Development – Stages in source selection and evaluation – Vendor Rating – Rating criteria. – Sre Keeping – Functions – Responsibilities of Sre Keeper – Sres Location.

Total: 60 hours

TEXT BOOKS:

1. Stevenson J. William, Operations Management, 9th Edition, TMH, 2007
2. Hanna, D.Mark& Rocky Newman, Integrated Operations Management-Adding value for Customers, PHI, 2001.
3. Aswathappa K. and Sridhara Bhat, Production and Operations Management, Himalaya Pub. House, 2003.

REFERENCES:

1. Lee J. krajewski and Larry P.Ritzman, 2007, Operations Management strategy and analysis, 9th Edition, Pearson Eduction / Prentice Hall of India, 2007.
2. Everett.Adam, Jr. and Ronald J. Elbert, Production and Operations Management Concepts, Models and Behaviour, 5th Edition, PHI. 2003.
3. Edward M. Knod and Richard J. Schonberger, 2001, Operations Management meeting cusmers demands, Mc Graw hill international, 7th Edition, 2001.
4. KanishkaBedi, 2005, Production and Operations Management, Oxford University Press, 2005.
5. Chary, S.N, Production and Operations Management, Tata McGrawhill, 2nd Edition, 2003.

Course Objective:

- To explain the conceptual framework for business policy and strategy, find the objectives and goals, its vision, Mission and purpose.

Course Outcomes:

At the end of the course, the students will be able to:

CO – 1: Analyze the main structural features of an industry and develop strategies that position the firm most favorably in relation to competition.

CO – 2: Recognize the different stages of industry evolution and recommend strategies appropriate each stage.

CO – 3: Appraise the resources and capabilities of the firm in terms of their ability to confer sustainable competitive advantage.

CO – 4: Demonstrate explaining of the concept of competitive advantage and its sources and the ability to recognize it in real-world scenarios.

CO – 5: Distinguish the two primary types of competitive advantage: cost and differentiation and formulate strategies create a cost and/or a differentiation advantage.

CO – 6: Analyze dynamics in competitive rivalry, including competitive action and response, and first-mover advantage.

CO – 7: Formulate strategies for exploiting international business opportunities, including foreign entry strategies and international location of production.

CO – 8: Explain how to formulate strategies that leverage a firm's core competencies.

CO – 9: Demonstrate the ability to think critically in relation to a particular problem, situation or strategic decision through real-world scenarios.

CO – 10: Recognize strategic decisions that present ethical challenges and make appropriate recommendations for ethical decision-making.

UNIT – I STRATEGY AND POLICY**12**

Conceptual framework for business policy and strategy, the Concept of policy and Strategy – Formation Process – Stakeholders in business – Vision, Mission and Purpose – Business

policy definition, Objectives and Goals.

UNIT – II COMPETITIVE ADVANTAGE 12

External Environment - Porter's Five Forces Model-Strategic Groups Competitive Changes during Industry Evolution- Globalisation and Industry Structure - National Context and Competitive advantage Resources- Capabilities and competencies–core competencies - Low cost and differentiation Generic Building Blocks of Competitive Advantage- Distinctive Competencies-Resources and Capabilities durability of competitive Advantage- Avoiding failures and sustaining competitive advantage-Case study.

UNIT – III STRATEGIES 12

The generic strategic alternatives – Stability, Expansion, Retrenchment and Combination strategies - Business level strategy- Strategy in the Global Environment-Corporate Strategy- Vertical Integration-Diversification and Strategic Alliances- Building and Restructuring the corporation- Strategic analysis and choice - Environmental Threat and Opportunity Profile (EP) - Organizational Capability Profile - Strategic Advantage Profile - Corporate Portfolio Analysis - SWOT Analysis - GAP Analysis - Mc Kinsey's 7s Framework - GE 9 Cell Model - Distinctive competitiveness - Selection of matrix - Balance Score Card-case study.

UNIT – IV STRATEGY IMPLEMENTATION & EVALUATION 12

The implementation process, Resource allocation, Designing ORGANIZational structure- Designing Strategic Control Systems- Matching structure and control strategy-Implementing Strategic change-Politics-Power and Conflict-Techniques of strategic evaluation & control-case study.

UNIT – V OTHER STRATEGIC ISSUES 12

Managing Technology and Innovation- Strategic issues for Non Profit ORGANIZations. New Business Models and strategies for Internet Economy-case study.

Total: 60 hours

TEXT BOOKS:

1. Tony Morden, Principles of strategic management, Ash gate publishing, 2007.
2. Kim warren, Strategic management dynamics, John wiley& sons, 2008.

REFERENCES:

1. Thomas L. Wheelen, J.David Hunger and KrishRangarajan, Strategic Management and

Business policy, Pearson Education., 2006.

2. Charles W.L.Hill& Gareth R.Jones, Strategic Management Theory, An Integrated approach, Biztantra, Wiley India, 2007.
3. AzharKazmi, Strategic Management & Business Policy, Tata McGraw Hill, Third Edition, 2008.

Course Objective:

- To get clear view about the concepts employed in the different logistical background a
- To explain the process related the logistical industry
- To explain the different drivers of logistics.

Course Outcomes:

At the end of the course, the students will be able to:

CO – 1: Explain the scope of logistics in business.

CO – 2: Explain logistics and supply chain management

CO – 3: Explain the core and support activities in logistics.

CO – 4: Explain about the logistical integration hierarchy

CO – 5: Explain the various issues in logistics integration.

CO – 6: Explain about the logistical performance cycles.

CO – 7: Explain about the logistics channel participants and supply chain relationships.

CO – 8: Explain about the various risks involved in logistics.

CO – 9: Explain about logistics re-engineering.

CO – 10: Explain about logistical environmental assessment and other logistics systems.

UNIT I INTRODUCTION LOGISTICS**12**

Introduction – Scope of logistics in business, Logistics and Supply Chain Management, Core and support activities of logistics; Logistical integration hierarchy; Integrated Logistics; Operating objectives; Barriers internal integration; Logistical performance cycles; Supply chain relationships – Channel participants, Channel structure, Basic functions, Risk, power and leadership.

UNIT II LOGISTICS SYSTEM DESIGN**12**

Logistics reengineering, Logistical environmental assessment, Time based logistics, Anticipatory and Response based strategies, Alternative strategies, Logistical operational arrangements, Time based control techniques; Integration theory – Location structure, Transportation economies, Inventory economies , Formulating logistics strategy.

UNIT III LOGISTICS STRATEGY AND PLANNING 12

Logistics planning triangle, Network appraisal; Guidelines for strategy formulation – total cost concept, Setting customer service level, Setting number of warehouses in logistics system, Setting safety stock levels, Differential distribution, Postponement, Consolidation, Selecting proper channel strategy.

UNIT IV INVENTORY AND PURCHASING 12

Review – Inventory and purchasing decisions; Multi facility location problems – Exact method, Heuristic methods, other methods; Logistics planning and design – Feasibility analysis, Project planning, Assumptions and data collection, Analysis, Development of recommendation, Implementation.

UNIT V LOCATION DECISIONS 12

Planning and design techniques – Logistics adhoc analysis, Location analysis, Inventory analysis, Transportation analysis.

Total: 60 hours

TEXT BOOKS:

1. Bowersox&Closs, Logistical Management, McGraw-Hill Companies, 1996.
2. R.H.Ballou, Business Logistics Management, Prentice-Hall, 2004

REFERENCE BOOKS:

1. Donald J. Bowersox and David J. Closs, Logistical Management - The Integrated Supply chain Process, Tata McGraw-Hill, 2004.
2. Vinod V. Sople, Logistics Management, Pearson Education, 2004.
3. Ronald H Ballou, Business Logistics/Supply Chain Management, Pearson Education, 2006.
4. John J. Coyle , Edward J. Bardi and C. John Langley Jr., The Management of Business Logistics - A supply chain Perspective, Thomson Business Information, 2006.
5. AnuragSaxena, Logistics and Supply Chain Management Text & Cases, Jaico Books, 2007.

Course Objective:

- To explain the concept and principles of the Project Management.
- To explain the tools and technique for identification, analysis and implementation of Project Management.

Course Outcomes:

At the end of the course, the students will be able to:

- CO – 1: Explain about the fundamental project and operations concepts.
- CO – 2: Identify the project parameters based on the Project Management Process.
- CO – 3: Construct the project charter.
- CO – 4: Formulate the Work Breakdown Structure (WBS).
- CO – 5: Identify the Network technique for Project Management.
- CO – 6: Analysis the time using CPM.
- CO – 7: Identify the project risks.
- CO – 8: Evaluate the risk using FMEA.
- CO – 9: Evaluate the cost control.
- CO – 10: Evaluate the quality control.

UNIT I INTRODUCTION 12

Project – Project Vs. Operations – Definition – Project Management: Types, Characteristics of Projects – Project life cycle – Project Parameters: Cost, Time and Quality – Project Management Process.

UNIT II IDENTIFICATION AND PLANNING 12

Selection – Project Planning and Scheduling – Project charter – Scope Management – Work Breakdown Structure (WBS) – Gantt Chart

UNIT III ANALYSIS 12

Financial analysis – Cost Management – Network technique for Project Management – CPM, PERT

UNIT IV RISK MANAGEMENT**12**

Risk Management – Nature of Risk – Types of Risk – Managing Risk – Hazard Identification – Hazard Analysis – Risk Planning and Control – FMEA.

UNIT V IMPLEMENTATION, MONIRING & CONTROL**12**

Implementation and Control – Quality Control – Cost control – Progress monitoring – Project Management Software.

Total: 60 hours**TEXT BOOKS:**

1. S. Choudry, Project Management, Tata McGraw Hill, 27th edition, 2006.
2. Prasanna Chandra, Projects – Planning, Analysis, Financing, Implementation and Review, Tata McGraw Hill, 4th Ed, 1997.
3. Narendra Singh, Project Management and Control, Himalaya publication, Mumbai, 1998.

REFERENCE BOOKS:

1. Mike Field and Laurie Keller, Project Management, Thompson Business press, 2002.
2. Gido and Clements, Successful project management, 2nd edition; Thompson southwestern, 2003.
3. John M Nicholas, Project Management for business and technology, 2nd edition, Pearson Education Asia, 2001.
4. Bhavesh M Patel, Project Management – Strategic Financial planning, Evaluation and control, Vikas publishing house, 2000.

Course Objective:

- To enable the students acquire knowledge of Environmental studies and their use, structure and function of an ecosystem, threats, bio-diversity, solid waste management, population explosion, disaster management, value management

Course Outcomes:

At the end of the course, the students will be able to:

CO – 1: Explain the natural environment and its relationships with human activities.

CO – 2: Analyse the renewable and non-renewable sources.

CO – 3: Evaluate strategies, technologies, and methods for sustainable management of environmental systems.

CO – 4: Describe and analyze human impacts on the environment and conservation of Biodiversity.

CO – 5: Demonstrate an awareness, knowledge, and appreciation of the conservation of ecological processes.

CO – 6: Recall core concepts and methods from ecological and physical sciences and methods of conservation.

CO – 7: Explain the effects of pollution and its prevention.

CO – 8: Determine a general explaining of the disaster management.

CO – 9: Explain the human rights, human health and current environmental challenges.

CO – 10: Analyse the role of Information Technology in Environment.

UNIT I MULTIDISCIPLINARY NATURE**12**

Definition, scope and importance, Need for public awareness. Natural Resources: Renewable and non-renewable resources: Natural resources and associated problems. Role of an individual in conservation of natural resources, equitable use of resources for sustainable lifestyles.

UNIT II ECOSYSTEMS**12**

Concept of an ecosystem, Structure and function of an ecosystem, Producers, consumers and

decomposers, Energy flow in the ecosystem, Ecological succession, Food chains, food webs and ecological pyramids

UNIT III BIODIVERSITY AND ITS CONSERVATION 12

Introduction – Definition: genetic, species and ecosystem diversity, Biogeographically classification of India, Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and option values, Biodiversity at global, National and local levels. Hot-spots of biodiversity. Threats biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts. Endangered and endemic species of India. Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity

UNIT IV ENVIRONMENTAL POLLUTION 12

Definition, Cause, effects and control measures of several pollutions, Solid waste Management: Causes, effects and control measures of urban and industrial wastes. Role of an individual in prevention of pollution. Pollution case studies. Disaster management: floods, earthquake, cyclone and landslides

UNIT V HUMAN POPULATION AND THE ENVIRONMENT 12

Population growth, variation among nations. Population explosion – Family Welfare Programme. Environment and human health, Human Rights. Value Education. HIV/AIDS. Women and Child Welfare. Role of Information Technology in Environment and human health. Case Studies

Total: 60 hours

TEXT BOOKS:

1. Gouri Suresh, Tata McGraw- A Textbook of Environmental Studies-Hill Education, 2012.

REFERENCE BOOKS:

1. Gouri Suresh, Environmental Studies and Ethics-K. International, 2010.
2. Mr. Chary, Environmental Studies, Macmillan, 2008

Course Objective:

- To introduce the fundamental Lean manufacturing and Six Sigma principles.
- To explain the tools and technique for the implementation of Lean manufacturing and Six Sigma.
- To explain the synergy of Lean manufacturing and Six Sigma.

Course Outcomes: At the end of the course, the students will be able to:

- CO – 1: Explain the principle and wastages of lean.
- CO – 2: Explain the implementation of lean tools.
- CO – 3: Design the current and future state mapping of Value Stream Mapping (VSM)
- CO – 4: Explain the lean concepts based on the Value Stream Mapping (VSM).
- CO – 5: Record knowledge of the concepts of TQM and Six Sigma.
- CO – 6: Explain the Six Sigma methodologies based on the implementation and tools.
- CO – 7: Explain the implementation of SPC tools using Six Sigma methodologies
- CO – 8: Explain the DMAIC based on the implementation of tools and techniques.
- CO – 9: Record knowledge on the synergy of lean and six sigma for successful implementation
- CO – 10: Explain the implementation of tools based on the lean and six sigma

UNIT – I LEAN MANUFACTURING: PRINCIPLE AND TOOLS 12

Evolution of Just-In-Time and Lean Manufacturing – Principle – Seven wastes – Just-In-Time (JIT) – One-Piece or Continuous Flow – Kanban or Pull System – Basic tools such as 5S, Kaizen, Poka-Yoke and Single-Minute Exchange of Dies (SMED)

UNIT – II TECHNIQUE: VALUE STREAM MAPPING 12

Value Stream Mapping (VSM) – Material and Information Flow – VSM symbols – Identification of Product or Product Family – Current-State Mapping – Future-State Mapping by key questions – Plan and Implementation.

UNIT – III SIX SIGMA**12**

Evolution – TQM vs. Six Sigma – What is Six Sigma – Six Sigma methodologies Such as DMAIC, DFSS – Six Sigma Belts.

UNIT – IV DMAIC: TOOLS**12**

Define – Measure – Analyze – Improve – Control – SIPOC model – VOC – CTQ – Seven Quality or SPC tools such as Pare Analysis, Cause and Effect Diagram, Control Charts etc. – Process Capability Analysis such as C_p , C_{pk} – Design of Experiments (DoE).

UNIT – V LEAN SIX SIGMA**12**

The Synergy of Six Sigma and Lean – Lean Six Sigma – Principle – Lean tools in DMAIC – Implementation of Lean Six Sigma.

Total: 60 hours**TEXT BOOKS:**

1. Feld, W. M., Lean Manufacturing tools, Techniques and How to Use Them, St. Lucie Press, Florida, 2000.
2. Michael L. George, et al., The Lean Six Sigma Pocket toolbook: A Quick REFERENCES Guide Nearly 100 tools for Improving Process Quality, Speed, and Complexity, McGraw-Hill, 2005.

REFERENCES:

1. Rother, M. and Shook, J., Learning see: Value stream mapping create value and eliminate muda, The lean enterprises institute Brookline, Massachusetts, USA, 1999.
2. Liker, J., The Toyota Way: 14 Management Principles from the World's Greatest Manufacturer, McGraw-Hill Education, 2004.
3. Pyzdek, T. and Keller, P. A., The Six Sigma Handbook, Fourth Edition, McGraw-Hill Professional, 2014.
4. George, M. L., Rowlands, D. and KastleB., What is Lean Six Sigma 1st Edition, McGraw-Hill Education, 2003.

Course Objective:

- To explain the Total Quality Management concept and principles and the various tools available to achieve Total Quality Management.
- To explain the statistical process control for the implementation of TQM.
- To create an awareness about the ISO certification process and its need for the industries.

Course Outcomes:

At the end of the course, the students will be able to:

CO – 1: Define the quality based on the quality gurus.

CO – 2: Analyze the implementation of TQM.

CO – 3: Identify the critical success factors.

CO – 4: Explain the implementation of continuous process improvement.

CO – 5: Record knowledge of the standards of ISO.

CO – 6: Explain the ISO system based on the implementation.

CO – 7: Explain the implementation of SPC tools.

CO – 8: Calculate the Process Capability.

CO – 9: Record knowledge on the various techniques of TQM.

CO – 10: Explain the implementation of PDCA cycle based on the problem solving method.

UNIT I INTRODUCTION 12

Evolution of Quality – Quality Definition and Contributions by Deming, Juran, Crosby, Feiganbaum, Ishikawa and Taguchi – Definition of TQM – TQM Framework – Barriers or Obstacles implementation of TQM – Cost of Quality

UNIT II PRINCIPLES OR CRITICAL SUCCESS FACRS 12

Top management Commitment (Leadership) – Customer Satisfaction – Employee Involvement – Continuous Process Improvement – Supplier Partnership – Performance Measure.

UNIT III QUALITYMANAGEMENTSYSTEMS 12

Introduction – Benefits of ISO Registration – ISO 9000 series of Standards – ISO 9001 Requirements – Implementation – Documentation – Writing the Documents – Quality Auditing

UNIT IV STATISTICAL PROCESS CONTROL 12

Introduction – Pare Analysis – Cause and Effect Diagram – Checklist or Checksheet – Process Flow Chart – Histogram – Scatter Diagram – Statistical Fundamentals such as Mean and Standard deviation – Chance and Assignable Causes – Control Charts for Variables – Process Capability Analysis such as C_p and C_{pk} – Control Charts for Attributes.

UNIT V TOOLS AND TECHNIQUES 12

Plan-Do-Check-Act (PDCA) Cycle – Quality Circles – Seven Management tools – Benchmarking – Quality Function Deployment (QFD) – Failure Mode and Effect Analysis (FMEA) – Taguchi Method

Total: 60 hours

TEXT BOOKS:

1. Besterfield, et al., Total Quality Management, Pearson Education Asia, 3rd Edition, 2006.
2. Suganthi, L. and Samuel, A., Total Quality Management, Prentice Hall (India) Pvt. Ltd., 2006.

REFERENCE BOOKS:

1. Evans, J.R. and Lindsay, W. M., The Management and Control of Quality, 6th Edition, South-Western (Thomson Learning), 2005.
2. Oakland, J.S., TQM – Text with Cases, Butterworth – Heinemann Ltd., Oxford, 3rd Edition, 2006.
3. Janakiraman, B. and Gopal, R.K., Total Quality Management – Text and Cases, Prentice Hall (India) Pvt. Ltd., 2006.
4. Pathak, G., Total Quality Management, Macmillan publishers India Ltd., 2011.

Course Objective:

- To help the students in explaining the significance of Warehousing.
- To provide timely customer service,
- To keep track of items so they can be found readily & correctly
- To minimize the total physical effort
- To minimize the cost of moving goods in & out of storage.

Course Outcomes:

At the end of the course, the students will be able to:

CO – 1: Explain the basics of warehousing.

CO – 2: Explain about the various warehouse operations.

CO – 3: Explain the various warehousing decisions.

CO – 4: Explain about the various types of warehouses.

CO – 5: Explain the various costs involved in a warehouse.

CO – 6: Explain about the storage systems used in a warehouse.

CO – 7: Explain about the various types of warehouses.

CO – 8: Explain about inventory management in the supply chain.

CO – 9: Explain the various inventory control techniques.

CO – 10: Explain the use of warehouse management systems to manage warehouse operations.

CO – 11: Explain and learn about the various manual and automated material handling systems used in a warehouse.

CO – 12: Explain the various modern warehouse technologies like AIDC devices such as bar coding, RFID etc.

UNIT I INTRODUCTION WAREHOUSING**12**

Introduction Warehousing – Basic Warehousing Decisions – Warehouse Operations –

Types of Warehouses – Functions – Centralized & Decentralized – Storage Systems –

Warehousing Cost Analysis – Warehouse Layout – Characteristics of Ideal Warehouse

UNIT II INVENTORY MANAGEMENT 12

Inventory: Basic Concepts – Role in Supply Chain – Role in Competitive Strategy – Independent Demand Systems – Dependent Demand Systems – Functions – Types – Cost – Need for Inventory – Just in Time

UNIT III INVENTORY CONTROL 12

Inventory Control – ABC Inventory Control – Multi-Echelon Inventory Systems – Distribution Requirement Planning – Bull Whip Effect – Using WMS for Managing Warehousing Operations

UNIT IV MATERIALS HANDLING 12

Principles and Performance Measures Of Material Handling Systems – Fundamentals of Material Handling – Various Types of Material Handling Equipments – Types of Conveyors – Refrigerated Warehouses- Cold Chain- Agri SCM

UNIT V MODERN WAREHOUSING METHODS 12

Modern Warehousing – Automated Storage & Retrieval Systems & their Operations – Bar Coding Technology & Applications in Logistics Industry – RFID Technology & Applications – Advantages of RFID

Total: 60 hours

TEXT BOOKS:

1. Vinod.V.Sople, Logistics Management, Pearson Education, 2004.
2. Arnold, Introduction Materials Management, Pearson Education, 2009.

REFERENCE BOOKS:

1. Frazelle, World Class Warehousing & Material Handling, Tata McGraw-Hill, 2008
2. Satish K. Kapoor and PurvaKansal, Basics of Distribution Management - A Logistical Approach, Prentice Hall, 2003
3. Satish K. Kapoor and PurvaKansalMarketing, Logistics - A Supply Chain Approach , Pearson Education, 2003

Course Objective:

- To explain the movement of cargo from vendor to end user across the globe
- To increase the value in product.
- To add value that includes improved quality and product accessibility across the world at optimal cost

Course Outcomes:

At the end of the course, the students will be able to:

- CO – 1: Explain the various basic issues in international transportation.
- CO – 2: Explain the various participants in international transportation.
- CO – 3: Explain the various modes of international transportation and selection of the modes.
- CO – 4: Explain about the multimodal and intermodal transportation.
- CO – 5: Explain about the freight costing and pricing.
- CO – 6: Explain various issues involved in ocean mode of transportation.
- CO – 7: Explain about the various classifications of ships and shipping methods.
- CO – 8: Explain about risks and insurance in ocean transportation.
- CO – 9: Explain about air mode of transportation.
- CO – 10: Explain the advantages and disadvantages of air cargo transport.
- CO – 11: Explain the types air cargo carriers.
- CO – 12: Explain the legal aspects of carriage of goods by air.
- CO – 13: Explain about the air freight structure, classification and calculation.
- CO – 14: Explain the role of IATA and TIACA in the air cargo industry.

UNIT I TRANSPORTATION**12**

Meaning and Significance of International Transportation- Role of transportation in integrated logistics process, Basic principles of international transportation, Parties involved in international transportation, Significance of Transportation, Modes of International Transportation- Criteria for Selection of different modes of transportation, Multi Modal

Transportation. Freight costing and pricing- Classification of Costs associated with Transportation process, Cost Strategies, Factors affecting, Transportation rate

UNIT II OCEAN MODE OF TRANSPORTATION 12

Features, Types and Terminology- Features, Advantages and Disadvantages of using sea mode, Classification of ships, Shipping Methods, S wage in Ship, Major Sea-routes around the world, Important Terminology, Freight, Parties and Perils Associated with Sea Mode- Parties involved in sea mode of transportation- Ocean Freight- Types of Sea Freight, Calculation of Freight; Maritime Risks, Marine Insurance.

UNIT III AIR AND FREIGHT TRANSPORTATION 12

Features, Types and Terminology- Significant Features, Advantages and Constraints of Air transportation, Types of Carriers, Air Cargo Chain Operators, Legal Aspect of Carriage of Goods by Air; Freight Structure and \ organizational set up- ULD Concept, Air Cargo Tariff Structure- Air Freight Classification, Air Freight Calculation, Factors Affecting Air Freight Rates, Air Freight Consolidation, Role of IATA and TIACA in Air Cargo Industry.

UNIT IV LAND MODE 12

Transportation by Rail and Road, Meaning of Land mode of transportation, International Road Transportation, International Road Network, Advantages and Constraints of International Road Transport, International Rail Transportation, Advantages and Constraints of International Rail Transport; Pipeline as a Mode of Transportation and Concept of Multi-modalism, Concept of Containerization.

UNIT V EXIM PROCEDURE AND DOCUMENTATION 12

Export procedure in India, Import Procedure in India , Transport Documents , Mate Receipt, Bill of Lading – features and types, Air-way Bill, Lorry Receipt; INCOTERMS 2013; Packaging and Labeling for Exports- What is packaging?, Functions of Packaging , Labeling the export packages , Packaging for different modes of transportation, Rail Receipt.

Total: 60 hours

TEXT BOOKS:

1. Altekar, Global supply chain management, Himalaya Publishers 2012.
2. W.J. Hopp and M.L. Spearman Irwin, Foundations of Manufacturing Management, McGraw-Hill, 1996.

REFERENCE BOOKS:

1. N. Viswanadham, Analysis of Manufacturing Enterprises. Kluwer Academic Publishers, 2000.
2. Sridhar Tayur, Ram Ganeshan, Michael Magazine (editors). Quantitative Models for Supply Chain Management. Kluwer Academic Publishers, 1999.
3. R.B. Handfield and E.L. Nichols, Jr. Introduction Supply Chain Management. Prentice Hall, 1999.
4. N. Viswanadham and Y. Narahari. Performance Modeling of Automated manufacturing Systems. Prentice Hall of India, 1998.
5. Sunil Chopra and Peter Meindel. Supply Chain Management: Strategy, Planning, and Operation, Prentice Hall of India, 2002.
6. Jeremy F. Shapiro. Modeling the Supply Chain. Duxbury Thomson Learning, 2001
7. David Simchi Levi, Philip kaminsky, and Edith Simchi Levi. Designing and Managing the Supply Chain: Concepts, Strategies, and Case Studies. Irwin McGrawHill, 2000.

Course Objective:

- To introduce programming course in the computer science major and minor curriculum. Introductory courses in computer science and the study of algorithms appropriate for students in data-intensive disciplines.
- To study how computers work, simple algorithms and their efficiency, networking, databases, artificial intelligence, graphics, simulation and modelling, security and the social impact of computing

Course Outcomes:

At the end of the course, the students will be able to:

CO – 1: Explain the structure, function and characteristics of a computing system including hardware and software

CO – 2: Explain the process of creating and executing a program in a computing system

CO – 3: Outline the foundation of documentation and database management.

CO –4: Arrange to manipulate structures for database.

CO –5: Explain the basic networks and emerging network technologies.

CO –6 : Explain the database system theory and implementation using structured query language.

CO –7: Explain the various database architectures and applications.

CO –8: Explain the roles of manager in an organization and explain the challenges faced by business enterprise.

CO –9: Explain the various enterprise software's like ERP/SCM/CRM in business organization.

CO –10: Explain MIS by following best practices and also able to elaborate decision making process.

UNIT – I COMPUTER**12**

Introduction, Classifications, Architecture, Generation of computers, Office Automation
Computers in business, what computers can do?, what computer cannot do?, hardware, software

Computer in Indian context.

UNIT – II DATA PROCESSING 12

Modes of Data Processing, Basic of Data Processing, Data Hierarchy, Data Structure Management of Data Processing Systems in Business Organizations, Computerised Financial Accounting System (FAS), Computerised Inventory Control System, Computerised Payroll System, Computerised Invoicing System

UNIT – III FILE SYSTEM AND DATA BASE 12

Introduction, Various Types of Files, Files Organization, Master File, Transaction File, File Design, Designing Reports, Database Management Systems, Integration of Application, Frontend and back-end, RDBMS.

UNIT – IV DATA COMMUNICATION AND NETWORKING 12

Data Communication, Multiplexing, Components of Computer Network, types of network Client/Server Vs. Peer Peer Networking, Network Operating System, Network Management LAN in Business Environments, Social media network, Cloud Computing

UNIT – V MANAGEMENT INFORMATION SYSTEM 12

Management information System, MS Excel, Tally, ERP, Decision Making and Computerized support- Management support systems: an overview decision - Making Systems - Modelling, an Support Requirement for decision support for decision Making, Business intelligence.

Total: 60 hours

TEXT BOOKS:

1. Richard D Gitlin, Jeremiah F Hayes, Stephen B , Weinstein Data Communication Principles, Springer, 1992.
2. Manoj Kumar, M. Shamir Bhudookan; Information Technology for 'O' Level; Editions De L'OceanIndien, 2004.

REFERENCES:

1. N.D.Birrell, M.A.Ould, A Practical Handbook for Software Development Cambridge University Press, 2011.
2. PankajJalote; Springer Macclah, K., An Integrated Approach Software Engineering; Decision Support Systems and Data Warehousing (3rd edn.), Tata McGraw-Hill : India, 2003.

Course Objective:

- To explain about personality development with regard to the different behavioural dimensions that are far reaching significance in the direction of organizational effectiveness.
- To enhance the overall development of the students.
- To explain the concept of success and failures and its implications for organizational function.
- To improve interpersonal skills and be an effective team player.

Course Outcomes:

At the end of the course, the students will be able to:

CO – 1: Discuss the concept SWOT and its outcome.

CO – 2: Explain the communication skills and the self-confidence.

CO – 3: Revise the concept of self-esteem with examples

CO – 4: Compare the concept of success and its failure and causes

CO – 5: Discuss the concept of motivation and also various factors leading to motivation and demotivation,

CO – 6: Discuss leadership skills and also know various types of leadership.

CO – 7: Explain the concept of Team building and the problem solving techniques

CO – 8: Analyze the time management skills and various techniques handle

CO – 9: Explain the concept of Group Discussion

CO – 10: Explain the concept of Time Management Styles

UNIT I INTRODUCTION**12**

Personality and working words developing it – Definition and Basics of Personality – Analysing Strengths and Weakness – Increasing Vocabulary – Body Language – Preparation for Self Introduction – Communication Skills – Building Self Esteem and Self Confidence.

UNIT II SELF-ESTEEM, SUCCESS AND FAILURE 12

Term self-esteem - Symptoms - Advantages - Do's and Don'ts develop positive self-esteem – Low self-esteem - Symptoms - Personality having low self-esteem - Positive and negative self-esteem. The concept of success and failure. What is success? - Hurdles in achieving success - Overcoming hurdles - Factors responsible for success – What is failure - Causes of failure - Do's and Don'ts regarding success and failure.

UNIT III ATTITUDE 12

Attitude - Concept - Significance - Factors affecting attitudes - Positive attitude - Advantages - Negative attitude - Disadvantages - Ways develop positive attitude - Difference between personalities having positive and negative attitude. Concept of motivation - Significance - Internal and external motives - Importance of self-motivation- Factors leading motivation.

UNIT IV LEADERSHIP AND TEAM 12

Introduction Leadership, Leadership Power, Leadership Styles, Leadership in Administration. Group Dynamics Importance of groups in organization, and Team Interactions in group, Group Building Decision Taking, Team Building, Interaction with the Team, How build a good team?

UNIT V GROUP DISCUSSION 12

Group Discussion - Resume Writing – Telephone, E-mail and Public Relations Office's Etiquettes - Telephone conversation - Time Management Styles- Techniques for better Time Management.

Total: 60 hours

TEXT BOOKS:

1. K.S.Antonymsamy, Soft Skills and Personality Development, A hand book of Employability skills, nichole, 2012.

REFERENCE BOOKS:

1. Paul C. Nutt, Why Decisions Fail, BerrettKochler Publishers, Inc. San Francisco, 2002.
2. Kenneth G. Mcgee, Heads Up : How Anticipate Business Surprises & Seize Opportunities First, Harvard Business School Press, Boston, Massachusetts, 2004.
3. James G. March, Primer on Decision Making, Simon & Schuster Inc., New York, 1994.

4. J. Edward Russo and Paul J. H. Schoemaker, *Winning Decisions*, Doubleday, agency of Random House Inc., 2002.
5. Indrajit Bhattacharya, *An Approach Communication Skills*, Delhi :DhanpatRai, 2008.