

# **MBA LOGISTICS & SHIPPING MANAGEMENT**



# VELS



INSTITUTE OF SCIENCE, TECHNOLOGY  
& ADVANCED STUDIES (VISTAS)  
(Deemed to be University under section 3 of UGC Act, 1956)  
**NAAC** ACCREDITED WITH 'A' GRADE

# **MBA**

# **LOGISTICS & SHIPPING**

# **MANAGEMENT**

## **Curriculum and Syllabus**

(Based on Choice Based Credit System)

Effective from the Academic year

**2018-2019**

**Department of M.B.A**

**School of Management Studies**

## **PROGRAM EDUCATIONAL OBJECTIVES (PEOs)**

PEO1: To provide best quality of education and prepare the students to meet global standard and competitive environment

PEO2: To inculcate team spirit and leadership capabilities among students to develop business leaders attain organizational development

PEO3: To impart ethical and moral values to create better citizens and society impart ethical and moral values to create better citizens and society

PEO4: To develop entrepreneurial skills to think strategically and encourage them to become Entrepreneurs

PEO5: To motivate students to participate in community development and undertake Industry Research Projects

## **VISTAS 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 knowledge of management techniques in business environment
2. Evaluate the systems and processes used in an organization including the planning, decision-making, group dynamics, innovation, production, supply chain, operations, technologies, marketing and distribution management.
3. Design alternatives to solve business problems utilizing quantitative analysis, critical thinking and sound ethical decision making.
4. Use research based knowledge and methods including company analysis, primary and secondary data collection, analysis and interpretation of data to find solution to business problems
5. Demonstrate effectively on analysing, interpreting and solving problems in developing business projects using appropriate tools and techniques.
6. Apply economic models, accounting principles, statistical techniques, and financial theories, analysis, and reporting in business decision-making.

7. Organize tools and techniques from Various Functional areas(i.e Finance , Marketing, Human Resources, operations etc) to handle business problems.
8. Evaluate and combine ethical considerations in making business decisions
9. Communicate effectively in various forms by effective use of recent technology and logical reasoning for presentations, documentation, report writing ,manual preparation .
10. Adapt life-long learning and professional development to enrich knowledge and competencies
11. Perceive an aptitude for creativity, innovation and entrepreneurship.
12. Demonstrate a global outlook with ability to identify aspects of the global business operations.

**MBA**  
**LOGISTICS & SHIPPING MANAGEMENT**

**Program Specific Outcomes**

PSO – 1: Demonstrate knowledge and techniques to manage logistics and shipping operations effectively using fundamental knowledge of management that comprises of accounting, finance, marketing and human resources management.

PSO – 2: Demonstrate knowledge, skills and techniques of quantitative method to improve logistics and shipping operations.

PSO – 3: Apply the fundamental concepts of logistics and shipping related to national and international business system.

PSO – 4: Improve the logistics and shipping processes using the advanced operations such as quality, lean, strategy and green to ensure sustainable business practices.

PSO – 5: Develop analytical skills using advancements in Information technology to implement the concepts of logistics and shipping system to aid decision making.

**VISTAS**  
**SCHOOL OF MANAGEMENT STUDIES**  
**BOARD OF STUDIES MEMBERS**  
**MBA (GEN), MBA (LSM), MBA (LSCM) and MBA (BA)**

<b>Sl.No</b>	<b>Name &amp; Address</b>	<b>Designation</b>
1.	<b>Dr.P.R. Ramakrishnan,</b> Dean, School of Management Studies, VISTAS, Chennai-600117	Chairperson
2.	<b>Dr.R. Thenmozhi,</b> Professor and Head, Department of Management Studies, Madras University, Chennai	External Expert
3.	<b>Mr.K.V.V.Giri</b> President CCHA, M/S Vaishnavi freight logistics Pvt ltd.	External Expert
4.	<b>Mrs.Sripriya,</b> Operations Programme Manager, TCS	Alumni
5.	<b>Dr.S.Vasantha ,</b> Professor, School of Management Studies, VISTAS,Chennai-600117	Internal Member
6.	<b>Dr.S.Preetha,</b> Associate Professor,School of Management Studies, VISTAS,Chennai-600117	Internal Member
7.	<b>Dr.G.Rajini</b> Associate Professor,School of Management Studies, VISTAS,Chennai-600117	Internal Member
8.	<b>Dr.P.Shalini</b> Associate Professor, School of Management Studies, VISTAS,Chennai-600117	Internal Member
9.	<b>Dr.P.G.Thirumagal</b> Assistant Professor, School of Management Studies, VISTAS,Chennai-600117	Internal Member
10.	<b>Dr.Madhumita.G</b> Assistant Professor, School of Management Studies, VISTAS,Chennai-600117	Internal Member

**VISTAS**  
**DEGREE OF MASTER OF BUSINESS ADMINISTRATION**  
**MBA**  
**LOGISTICS & SHIPPING MANAGEMENT**  
**CHOICE BASED CREDIT SYSTEM**  
**REGULATIONS**  
**w.e.f. 2018**

**1. ELIGIBILITY FOR THE AWARD OF DEGREE:**

A candidate shall be eligible for the award of the Degree only if he/she has satisfactorily undergone the prescribed Course of Study in a College affiliated to this University for a period of not less than TWO academic years and, passed the examinations of all the FOUR Semesters.

**2. DURATION OF THE COURSE:**

The course for FULL-TIME students shall extend over a period of TWO academic years consisting of FOUR Semesters. Each academic year shall be divided into Two Semesters. The FIRST academic year shall comprise the First & Second Semesters, the SECOND academic year the Third & Fourth Semesters.

The ODD Semesters shall consist of the period from July to November of each year and the EVEN Semesters from January to April of each year.

The duration of each semester will be about 16 weeks. The subjects of study shall be in accordance with the syllabus prescribed from time to time which may be amended through a board of studies members.

**CONDITIONS FOR ADMISSION:**

Candidates shall be required to have passed any Bachelor's Degree of any University/Institute of college or of any other University or a qualification accepted by the Syndicate of this University as equivalent thereto, shall be eligible for admission to MBA Degree Course.

### 3.1. COURSE OF STUDY AND SCHEME OF EXAMINATIONS (FULL TIME)

The total number of subjects of study shall be 25 out of which 17 shall be compulsory subjects and of the remaining 8 will be Electives, Internship after Second semester and Project Work in the Final Semester with a Viva-voce.

The FULL-TIME candidates shall take 8 subjects (Theory) in the First semester, 8 subjects (Theory) in the Second Semester, 9 subjects (Theory) in the Third Semester and a Summer Internship and a Project Work.

### 3.2. ELECTIVE SUBJECTS:

To offer Elective Subjects to the students, a Minimum enrolment in the Elective Subjects shall be TEN.

### PROJECT REPORT & VIVA VOCE:

The Project Report must be submitted through the Supervisor and the Head of the Department at the end of the final semester ie following the third semester Examination failing which the candidate will be treated as appearing on a second occasion and shall NOT BE ELIGIBLE for First Class and Ranking.

### MBA – LSM SEMESTER I

Code	Course	Hour / Week			Credits
		Lecture	Tutorial	Practical	
18CMBL11	Management principles and Organizational Behaviour	4	0	0	4
18CMBL12	Business Statistics & Quantitative Techniques	3	1	0	4
18CMBL13	Managerial Economics	4	0	0	4
18CMBL14	Financial Reporting , Statements & Analysis	3	1	0	4
18CMBL15	Legal & Business Environment	4	0	0	4
18CMBL16	Business Communication	4	0	0	4
18CMBL17	Computer Applications for Business	4	0	0	4
18PMBL11	Community Development Project / MOOC / Outbound Experiential Learning Programme	0	0	2	1
		<b>26</b>	<b>2</b>	<b>2</b>	<b>29</b>

### SEMESTER II

Code	Course	Hour / Week			Credits
		Lecture	Tutorial	Practical	
18CMBL21	Global Environment of Business	4	0	0	4
18CMBL22	Marketing Management	4	0	0	4
18CMBL23	Fundamentals of Logistics & Supply Chain Management	4	0	0	4
18CMBL24	Maritime Business	4	0	0	4
18CMBL25	Maritime Economics	4	0	0	4
18CMBL26	Transportation & Distribution Management	4	0	0	4
18EMBL....	Elective I	3	0	0	3
		<b>27</b>	<b>0</b>	<b>0</b>	<b>27</b>

18IMBL21	Internship	0	0	0	<b>6</b>
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### SEMESTER III

Code	Course	Hour / Week			Credits
		Lecture	Tutorial	Practical	
18CMBL31	Enterprise Resource Planning	4	0	0	4
18EMBL....	Elective II	4	0	0	4
18EMBL....	Elective III	3	0	0	3
18EMBL....	Elective IV	3	0	0	3
18EMBL....	Elective V	3	0	0	3
18EMBL....	Elective VI	3	0	0	3
18EMBL....	Elective VII	3	0	0	3
18EMBL....	Elective VIII	3	0	0	3
		<b>26</b>	<b>0</b>	<b>0</b>	<b>26</b>

### SEMESTER IV

Code	Course	Hour / Week			Credits
		Lecture	Tutorial	Practical	
18RMBL41	Project	0	0	28	14
		<b>0</b>	<b>0</b>	<b>28</b>	<b>14</b>

**Total Credits: 102**



**Internship:** The students have to undergo an Internship for thirty days in between second and third semester. The maximum marks for Internship will be 100. The Internship will be evaluated through Viva voce Exam by the guide and an External expert.

**Project:** The students will do a Project work for Four months in the Fourth Semester. The Maximum marks for Project Work will be 300. The project Work will be evaluated through Viva voce Exam by the guide and an External expert. The components of Project Work will be 100 marks for Dissertation and 200marks for Viva voce.

### ELECTIVE COURSES – II SEMESTER

FUNCTIONAL AREA	CODE	COURSES
Logistics	18EMBL21	Multimodal Transportation Management
	18EMBL22	Logistics Concepts & Planning
	18EMBL23	Inland Waterways Management

### ELECTIVE COURSES – III SEMESTER

FUNCTIONAL AREA	CODE	COURSES
Logistics & Shipping	18EMBL31	Commercial Geography
	18EMBL32	Air Cargo Management
	18EMBL33	Dry Cargo Chartering and Port Agency
	18EMBL34	Liner Trade and Freight Forwarding
	18EMBL35	Shipping Law and Marine Insurance
	18EMBL36	Customs Laws and procedures
	18EMBL37	Container Management
	18EMBL38	Inland Transport Management
	18EMBL39	Delivery Management
	18EMBL40	International Transport Law
	18EMBL41	Export-Import Documentation
Supply Chain	18EMBL42	Warehousing and Inventory Management
	18EMBL43	Global Procurement Management
	18EMBL44	Green Supply Chain Management
	18EMBL45	Supply Chain Analytics
	18EMBL46	Vendor Managed Inventory
	18EMBL47	Global SCM
	18EMBL48	Sourcing Management

<b>FUNCTIONAL AREA</b>	<b>CODE</b>	<b>COURSES</b>
Operations	18EMBL49	Lean Six Sigma
	18EMBL50	Project Management
	18EMBL51	Operations Research Applications
	18EMBL52	Total Quality Management
	18EMBL53	World Class Manufacturing
	18EMBL54	Behavioural Operations Management
	18EMBL55	Management of Manufacturing Systems
	18EMBL56	Operations Strategy
	18EMBL57	Services Operations Management
Entrepreneurship	18EMBL58	Environmental Studies
	18EMBL59	Indian Ethos and Business Ethics
	18EMBL60	Business Policy & Strategy
	18EMBL61	E-Business

#### **4 REQUIREMENTS FOR PROCEEDING TO SUBSEQUENT SEMESTER:**

- a. Candidates shall register their names for the First Semester Examination after the admission in PG Courses.
- b. Candidates shall be permitted to proceed from, the First Semester up to Final Semester irrespective of their failure in any of the Semester Examination subject to the condition that the candidates should register for all the arrears subjects of earlier semester along with current (subsequent) Semester subjects.
- c. Students appearing for the University examinations must have a minimum of 75% attendance, failing which will not be permitted to write the examinations.
- d. However, the University may condone the attendance shortage of 10% after collecting a condonation fee from the students who have secured 65 to 74% of attendance.
- e. The students who have secured less than 65% attendance are not eligible to write the respective semester examination. He / She has to rejoin and re-do the respective semester course in the next academic year by paying the prescribed tuition fee.
- f. Condonation for deficiency of attendance will not be granted as a matter of routine.

## **5. EXAMINATIONS:**

There shall be four examinations, first semester examination will be held in Nov/Dec of the first year and the second semester examination at April/May of the first year. Similarly the third and fourth semester examinations will be held during Nov/Dec and April/May of the second year respectively. Max. no. of attempts is 8.

## **6. PASSING MINIMUM:**

- i. A candidate who secures not less than 50 percent marks in the External Written Examination and the aggregate (i.e. Written Examination Marks and the Internal Assessment Marks put together) respectively of each paper shall be declared to have passed the examination in that subject.
- ii.
  - a. A candidate shall be declared to have passed Project Work and Viva-Voce respectively, if he/she secures a minimum 50 percent marks in the Project Work Evaluation and the Viva Voce respectively.
  - b. A candidate failing in any subject will be permitted to appear for the examinations again on a subsequent occasion without putting in any additional attendance.
  - c. A candidate who fails in either Project Work or Viva-Voce shall be permitted to redo the Project Work for evaluation and reappear for the Viva-Voce on a subsequent occasion, if so recommended by the Examiners.
- iii. A Candidate who successfully completes the course and passes the examinations of all the FOUR Semesters prescribed as per Scheme of Examinations earning prescribed CREDITS shall be declared to have qualified for the Degree, provided the whole course has been completed within a maximum of 4 YEARS from the date of initially joining the course in the case of a FULL-TIME candidates.

## **7. CLASSIFICATION OF SUCCESSFUL CANDIDATES:**

Successful candidates securing not less than 60 percent in the aggregate of the marks prescribed for the Course shall be declared to have qualified for the Degree in First Class, provided they have passed the Project Work and the Viva-Voce at the FIRST appearance and the

Examination of all the other subjects within TWO YEARS after their admission in the case of FULL-TIME students.

Successful candidates securing not less than 75 percent in the aggregate of the marks prescribed for the Course shall be declared to have qualified for the Degree in First Class with Distinction provided they pass all the examinations prescribed for the course at the First Appearance / instance. All other successful candidates shall be declared to have passed reexamination in the Second Class.

## 8 GRADING SYSTEM

The following table gives the marks, grade points, letter grades and classification to indicate the performance of the candidate.

**Conversion of Marks to Grade Points and Letter Grade  
(Performance in a Paper /Course)**

Marks	Grade Points	Grade	Description
90-100	10	O	OUTSTANDING
85-89	9	A+	EXCELLENT
80-84	8	A	VERY GOOD
75-79	7.5	B+	GOOD
70-74	7	B	ABOVE AVERAGE
60-69	6	C	AVERAGE
50-59	5	D	MINIMUM FOR PASS
00 - 49	0	RA	REAPPEAR
-		AAA	ABSENT

### Calculation of GPA & CGPA

$$GPA = \frac{\sum (C \times GP)}{\sum (C)}$$

$$CGPA = \frac{\sum_{i=1}^n (C_i \times GP_i)}{\sum_{i=1}^n (C_i)}$$

n = Number of subjects

C = Credit for the academic courses successfully completed

GP = Grade point for the courses successfully completed

GPA = Grade point average for all the courses successfully completed in the current semester examination

CGPA = Cumulative grade point average

**Overall Performance:**

<b>CGPA</b>	<b>Grade</b>	<b>Class</b>
5.00 - 5.99	D	Second Class
6.00 - 6.99	C	First Class
7.00 - 7.49	B	
7.50 - 7.99	B+	First Class with Distinction
8.00 - 8.49	A	
8.50 - 8.99	A+	
9.00 - 10.0	O	First Class - Outstanding

\*The candidates who have passed in the first appearance and within the prescribed semester of the PG Programme (Core, Elective, Non-major Electives and Extra-Disciplinary courses alone) are eligible.

**9. RANKING:**

Candidates who pass all the examinations prescribed for the Course In the FIRST APPEARANCE ITSELF ALONE are eligible for Ranking/Distinction provided in the case of Candidates who pass all the examinations prescribed for the Course with a break in the First Appearance due to the reasons as furnished in the Regulations under REQUIREMENTS FOR PROCEEDING TO SUBSEQUENT SEMESTER are only eligible for Classification.

**10. QUESTION PAPER PATTERN**

Total Marks for each subject 100 Marks

University Exam 60 Marks

Internal Assessment 40 Marks

**Duration: 3 Hours Max. Marks: 100**

Part A : 8 out of 10 questions ( 8 X 5 = 40 )

Part B : 4 out of 6 questions ( 4 X 10 = 40 )

Part C : 1 Case Study or Problem is Compulsory ( 1 X 20 = 20 )

**MBA – LSM**  
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**SEMESTER II**

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18EMBL....	Elective VI	3	0	0	3
18EMBL....	Elective VII	3	0	0	3
18EMBL....	Elective VIII	3	0	0	3
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	18EMBL59	Indian Ethos and Business Ethics
	18EMBL60	Business Policy & Strategy
	18EMBL61	E-Business



# **SEMESTER I**

**COURSE OBJECTIVE:**

- To describe the fundamentals of Management, significance, scope of management, levels of manager, functions of a manager and basics of organizational behavior.
- To discuss the development of management thought
- To examine and analyze the behavior of individuals and groups in organizations by understanding the concepts of learning, attitudes & perceptions.
- To understand about the organizational structure, its types, decentralization and delegation of the authority.

**COURSE OUTCOMES:**

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

- CO – 1 : Discuss about the management and its historical development.
- CO – 2 : Assess the fundamentals of organizational behavior and OB Model.
- CO – 3 : Analyze the behavior of individuals and groups in organizations
- CO – 4 : Summarize the perceptions, learning, attitudes, and motivation in organizations
- CO – 5 : Analyze the teams and organizations, evaluating transaction analysis.
- CO – 6 : Compare and contrast power and influence of leadership
- CO – 7 : Assess the knowledge about the organization structure and its types
- CO – 8 : Describe about the line and staff authority.
- CO – 9 : Demonstrate the dynamics of organizational change.
- CO – 10 : Identify the major issues in business ethics and corporate social responsibility.

**UNIT I INTRODUCTION TO MANAGEMENT 12**

Introduction to Management and Organizational Behavior: Concept of Management, Applying Management theory in practice, Evolution of management thought, Management process and Functions – Managerial Roles – OB Model – Contributing disciplines of OB – MBO

**UNIT II INDIVIDUAL PROCESS IN ORGANIZATIONS 12**

Individual Processes in Organizations: Foundations for Individual Behavior – Learning - Attitudes and Job satisfaction – Personality and values – Perception - Motivation and Organizational performance. Contemporary theories of motivation.

**UNIT III                    INTERPERSONAL PROCESS IN ORGANIZATIONS                    12**

Interpersonal process in Organizations: -Communication Process -Methods – Barriers -Grapevine. Transactional Analysis. Group Dynamics: Typology of Groups -Conflicts in groups - Leadership Models and Concepts – leadership theories – Decision making and negotiation - Power and Politics.

**UNIT IV                    ORGANISATIONAL PROCESS                    12**

Organizational Process and Characteristics: Dimensions of Organization structure – Authority, Responsibility, and Accountability – Delegation – Centralization, Decentralization – Line and Staff Relationship.

**UNIT V                    ORGANIZATIONAL DEVELOPMENT                    12**

Organizational Development: Resistance to Change - Organizational change - Organizational development – Stress management – Business ethics and corporate social Responsibility.

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

1. Harold Koontz & Heinz Weihrich, “Essentials of Management”, TMH, 10<sup>th</sup> Edition, 2007.

**REFERENCE BOOKS:**

1. Michael A. Hitt, J. Stewart Black, and Lyman W. Porter, Management, Pearson, 11th Edition, 2011.
2. Koontz & Weirich, Essentials of Management, Tata McGraw Hill Publishing Company, New Delhi. Stoner, Freeman & Gilbert, Management, PHI, 6th Edition.
3. Robbins.S.P. Fundamentals of Management, Pearson, 2003. Robbins.S. Organisational Behaviour, X edn., Prentice-Hall, India.

**COURSE OBJECTIVE:**

- To acquaint the student with the applications of Statistics and 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:**

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

- CO – 1 : Formulation a Linear programming problem.  
 CO – 2 : Solve the formulation of Linear programming.  
 CO – 3 : Evaluate the initial solution for Transportation Model.  
 CO – 4 : Evaluate the solution for Assignment Problem.  
 CO – 5 : Minimize the waiting hours of simultaneous projects undertaken.  
 CO – 6 : Explain the different network models.  
 CO – 7 : Evaluate the solution for game theory.  
 CO – 8 : Solve the game theory using dominance.  
 CO – 9 : Understand the descriptive statistics and probability.  
 CO – 10 : Apply the statistical techniques in reality to market scenario.

**UNIT I LINEAR PROGRAMMING 12**

Operations Research – Linear programming (LP) – Formulation – Graphical Solutions – Simplex Method – Duality Concepts – Sensitivity Analysis – Using Excel solver to solve LP Problems

**UNIT II TRANSPORTATION AND ASSIGNMENT 12**

Transportation Model – Initial Solution: North West Corner Rule, Least Cost Method, Vogel’s Approximation method – Assignment Problem.

**UNIT III NETWORK MODELS 12**

Network Models – Shortest Path Problem: PERT & CPM – Maximum Flow Problem – Minimum Spanning Tree

**UNIT IV GAME THEORY 12**

Game Theory – Game – Zero-sum games and Non-zero sum games – Pure & Mixed Strategy – Maximin–Minimax Principle – Dominance Property.

**UNIT V**

**STATISTICS**

**12**

Introduction – Descriptive Statistics – Hypothesis Testing – T-test – Analysis of Variance –Linear Regression.

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

2. Tulsian, P. C., Vishal Pandey, Quantitative Techniques – Theory and Problems, Pearson Publications, 2006.
3. Sankar P. Iyer, Operations Research, Tata McGraw-Hill Education, 2008

**REFERENCE BOOKS:**

4. Hamdy A. Taha, Operations Research-An introduction, Pearson Education, 8th Edition / Prentice Hall of India, 2007.
5. A. Ravindren, Don T. Phillips and James J. Solberg, Operations Research Principles and Practice, John Wiley and Sons, 2nd edition, 2000.

**COURSE OBJECTIVE:**

- The study the concept of Managerial Economics by applying a series of basic economics principles.
- To gain knowledge on issues related to optimal pricing strategies, demand forecasting, and optimal financing, appropriate hiring decisions, and investment decisions, among others, can be successfully tackled with managerial economics tools.
- To analyse how to incorporate a global perspective to their managerial economics box of tools.

**COURSE OUTCOMES:**

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

- CO – 1 : Define the basic elements of managerial economics aspects of the firm.
- CO – 2 : Study the life cycle of a product
- CO – 3 : Forecast demand for a product and decide on the demand decisions.
- CO – 4 : Know what to produce, where to, when to, how to, for whom to.
- CO – 5 : Frame policy for production to minimize the cost and maximum the profit.
- CO – 6 : Construct the cost function.
- CO – 7 : Reorganise the basics of market structures and their environment.
- CO – 8 : Decide on the input and output decisions.
- CO – 9 : Know the basic theories related to business practices.
- CO – 10 : Enable them to take a decision with given business situation

**UNIT I INTRODUCTION 12**

Introduction to Managerial Economics – Nature and scope of macroeconomics -Incremental principle – equimarginal principle – some decision rules – The risk and uncertainty theory –optimization techniques – Baumol’s sales maximization – least-cost combination.

**UNIT II DEMAND DECISIONS 12**

Demand Decisions – Demand analysis – elasticity of demand – demand forecasting – types & methods of demand forecasting – trend projection method – least square method of demand forecasting limitations & uses

**UNIT III OUTPUT DECISIONS 12**

Input-Output Decisions - Production function – Cost and managerial decision making – Cobb-Douglas production functions – Law of variable proportion – short run cost output – long run cost output – economies and dimensions of scale of production.

**UNIT IV PRICE-OUTPUT DECISIONS 12**

Price-Output Decisions - Market Environment of Price Output Decisions by the Firm and the Industry – Pricing under perfect competition – digopoly pricing strategies and tactics – pricing – pricing in life-cycle of a product -Profit-Maximization & Competitive Markets-Price-Searchers, Cartels, Oligopoly-Advanced Pricing and Auctions.

**UNIT V ECONOMIC THEORY 12**

The Firm in Theory and Practice - Economic Theory of the Firm – The Behavioral Theory of the Firm - Managerial Theories of the Firm – Profit concepts & analysis – Game Theory and Asymmetric Information.

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

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

**REFERENCE BOOKS:**

1. K.K. Seo, Managerial Economics, Richard D. Irwin Inc. 1988
2. I.C. Dhingra, Essentials of Managerial Economics - Theory, Applications and Cases Sultan Chand, New Delhi, 2003

**COURSE OBJECTIVE:**

- To think in a new and more creative way when analyzing or forecasting financial information.
- To introduce new tools common to financial statement analysis and how to use them in practical applications.
- To understand how financial statement information can help solve business problems and increase the ability to read and understand financial statements and related information.

**COURSE OUTCOMES:**

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

- CO – 1 : State the importance of common accounting standards
- CO – 2 : Outline the accounting process
- CO – 3 : Prepare financial statements through ratio analysis.
- CO – 4 : Analyze financial reports of financial instruments, mutual funds,
- CO – 5 : Prepare cash flow and fund flow statement
- CO – 6 : Analyze cash flow and fund flow statement
- CO – 7 : Calculate cost of capital – Debt, Equity, Preference Capital.
- CO – 8 : Identify various sources of Finance
- CO – 9 : Estimate work capital of an organization.
- CO – 10 : Estimate components of work capital.

**UNIT I INTRODUCTION 12**

Introduction to Management Accounting-Need and Importance — Accounting concepts & conventions – Accounting Standards - Overview of IFRS and GAAP. Mechanics of Accounting: Double entry system of accounting, journalizing of transactions; ledger posting and trial balance, preparation of final accounts, Profit & Loss Account, Balance Sheet.

**UNIT II ANALYSIS OF FINANCIAL STATEMENTS 12**

Analysis of financial statement: Ratio Analysis- solvency ratios, profitability ratios, activity ratios, liquidity ratios, market capitalization ratios; Common Size Statement; Comparative Balance Sheet and Trend Analysis of manufacturing, service & banking organizations.

**UNIT III FUNDS FLOW AND CASH FLOW ANALYSIS 12**



Fund Flow Analysis: Meaning – uses – Preparation of Fund Flow Statement. Cash Flow Analysis (as per Accounting Standard 3): Meaning – uses – Preparation of Cash Flow Statement.

**UNIT IV CAPITAL BUDGETING AND MARGINAL COSTING 12**

Capital budgeting – meaning – steps – different types of investment decisions - Different methods – Payback, Net Present Value, Internal rate of return, Profitability index, Average rate of return – Capital rationing Marginal costing – Cost Volume Profit analysis – Break Even analysis – Applications of marginal costing

**UNIT V BUDGETING AND FINANCIAL REPORTING 12**

Budgeting – Different types of budgeting – Cash budget – Flexible budget.

Financial reporting – Concepts – users, Objectives of financial reporting – Qualitative characteristics of information in financial reporting – basic problems of disclosure – Role of SEBI in IFRS – Statutory disclosures in IFRS – Corporate reporting practices in India- Challenges in financial reporting

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

1. R.S.N.Pillai & Bagavathi – Management Accounting, Chand & Co. Ltd., New Delhi, 6<sup>TH</sup> edition 2002.
2. T.S.Reddy & Y.Hari Prasad Reddy – Financial and Management Accounting, Margham publications, 12<sup>TH</sup> edition 2004.

**REFERENCE BOOKS:**

1. M.Y.Khan & P.K.Jain – Management Accounting, Tata McGraw Hill publishing company Ltd., 10th edition 2004.
2. R.Narayanaswamy – Financial accounting – A Managerial Perspective, Prentice Hall India Ltd., New Delhi 5th edition, 2014.
3. Paresh Shah Basic Financial Accounting for Management, Oxford Publications, 3rd edition, 2007

**COURSE OBJECTIVE:**

- To create the knowledge of Legal perspective and its practices to improvise the business.
- To describe the nature and classes of contracts.
- To identify the elements needed to create a contract.
- To read, interpret the various act related to business, property and business.
- To identify the rights related to copyrights and patents.

**COURSE OUTCOMES:**

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

- CO – 1 : Draft a simple employment contract
- CO – 2 : Arrange the basics elements of contracts and classifications of contract
- CO – 3 : Improve their awareness and knowledge about functioning of local business.
- CO – 4 : Improve their awareness and knowledge about functioning of global business.
- CO – 5 : Gather knowledge on evolvment of business enterprises
- CO – 6 : Enhance knowledge on bailment and pledge
- CO – 7 : Encourage learners to differentiate between guarantee and indemnity
- CO – 8 : Proper knowledge on copyrights and trademarks.
- CO – 9 : Gain wisdom on various business protection laws
- CO – 10 : Recognize the functioning of businesses, identifying potential business opportunities.

**UNIT I INTRODUCTION 12**

Legal Aspect of Business: Introduction to Business Laws- Business Management and Jurisprudence; structure of the Indian Legal Systems: sources of Law; Manager and Legal System

**UNIT II LEGAL ASPECTS 12**

Fundamentals of contract laws-Formation of Contracts;- Principles of Contract Laws-Legality of Object Consideration; Performance of contract-Discharge of contract- breach of contract-Quasi contracts.

**UNIT III CONTRACT MANAGEMENT 12**

Contract Management-Special Contracts-Laws of Agency; Principal-Agent Problem-Bailment, Pledge, Guarantee and Indemnity-Sales of Goods- Principles of Sales of Goods.

**UNIT IV TRANSFER OF OWNERSHIP& PROPERTY 12**

Transfer of Ownership& Property–Performance of contract-Consumer Protection Laws-Law relating to Business Organizations-Partnership Trusts- Company form of organization.

**UNIT V                      COPYRIGHTS & TRADEMARKS**

**12**

Protecting the property of Business-Copyright, Trademark, secret, Geographical Indications- Alternate Dispute resolutions.

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

2. N.D.Kapoor, Elements of Mercantile Law, S.Chand& Sons, 2013
3. P.P.S.Gogna, Mercantile Law, S. Chand & Co. Ltd., India, Fourth Edition, 2008.
4. Dr. Vinod, K. Singhanian, Direct Taxes Planning and Management, 2008.
5. Richard Stim, Intellectual Property- Copy Rights, Trade Marks, and Patents, Cengage Learning, 2008.

**REFERENCE BOOKS:**

1. Balachandran V., Legal Aspects of Business, Tata McGraw Hill, 20
2. Daniel Albuquerque, Legal Aspect of Business, Oxford, 20
3. Ravinder Kumar– Legal Aspect of Business. – Cengage Learning, 2nd Edition-2011.

**COURSE OBJECTIVE:**

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

**COURSE OUTCOMES:**

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

- CO – 1 : Recall the basics of communication and its process, elements and importance.
- CO – 2 : Communicate in an effective manner.
- CO – 3 : Shine as a better leader and guide the team with effective communication skills.
- CO – 4 : Application of oral and written communication.
- CO – 5 : Evaluate the effectiveness of revising and checking the messages.
- CO – 6 : Use of appropriate technology for business presentations and digital communication.
- 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. Just-A-Minute Presentation Workshop-Jam Feedback and overcoming Glossophobia-Presentation-1 (Planning & Preparing)

**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. Presentation–3 (Delivery)-Graded Team Presentations-Group 1-Graded Team Presentations-Group 2-Reading, listening & Questioning.

**UNIT V                      REPORTS AND PRESENTATIONS                      12**

Writing Business Communication basics-Writing Reports, Proposals Business reports and Proposals, Format, visual aids and contents, Oral Business presentations. Individual Presentations- Group 1-Graded Individual Presentations- Group 2-Presentation feedback, Bios and Resumes, Presentation-Visual Aids.

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

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

**REFERENCE BOOKS:**

1. Lesikar R.V &Flatly 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 introduce the essential concepts necessary to make effective use of the computer.
- To understand what a computer can do, how it works, and how it can be used to create documents using word processing and spreadsheet applications for personal and business use.

**COURSE OUTCOMES:**

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

- CO – 1 : Evaluate the fundamentals of internet with regard to its safety
- CO – 2 : Explain the basics of hardware and software.
- CO – 3 : Identify different components of hardware systems, cables & assemblies.
- CO – 4 : Discuss about the file management, word processing.
- CO – 5 : Demonstrate working with Graphics, Document Commands, Mail Merge, Spreadsheets.
- CO – 6 : Demonstrate the ease to work with MS Word.
- CO – 7 : Explain the fundamentals of MS EXCEL with various functions and commands.
- CO – 8 : Demonstrate the working of MS Excel using filters, templates, preparations of charts.
- CO – 9 : Elucidate the need of MS PowerPoint, design & templates
- CO – 10 : Manipulate records, creating records and web designing using MS Powerpoint.

**UNIT I INTRODUCTION TO BASICS 12**

Internet Basics, Internet Safety, Hardware/Software Basics.

**UNIT II IDENTIFY COMPONENTS OF A HARDWARE SYSTEM 12**

Identify Components of a Hardware System, Cables and Assembly. Application vs. Operating Software, File Management Word Processing.

**UNIT III MICROSOFT WORD 12**

Microsoft Word, Terminology , Word Basics , Editing , Helpful Word ,Features , Formatting Literacy at the keyboard Word Processing – Microsoft Word – Continued, Formatting , Document Commands, Mail Merge , Spreadsheets .

**UNIT IV MICROSOFT EXCEL 12**

Microsoft Excel , Terminology Excel Basics , Formatting Worksheets , Organizing the Worksheet ,Formulas/Functions Spreadsheets – Microsoft Excel – Continued , Formulas/Functions, Continued , Sorting, Filters, and Templates , Charts , Presentations .

**UNIT V                    MICROSOFT POWERPOINT****12**

Microsoft PowerPoint , Terminology , Design Guidelines , PowerPoint Basics , Design Templates/Fonts, Presentations – Continued ,Group & Individual PowerPoint Projects , Databases – Microsoft Access Terminology , Access Basics , Creating/Modifying Forms , Finding/Ordering Data (Queries & Filters) , Creating Reports.

**TOTAL: 60 HOURS****TEXT BOOKS:**

1. Turban Rainer and Potter – Introduction to Information Technology, John Wiley & Sons, 2005.
2. Richard D Gitlin, Jeremiah F Hayes, Stephen B Weinstein, Data Communications Principles, Springer, 1992

**REFERENCE BOOKS:**

1. William Stallings, Data and Computer Communications, Prentice Hall, 2007
2. Behrouz A. Forouzan, DeAnza College, Data Communications and Networking, McGraw-Hills, 2007
3. N.D.Birrell, M.A. Ould, A Practical Handbook for Software Development, Cambridge University Press, 1988
4. Sanjay Saxena, A first course in computers, Vikas Publishing House Pt. Ltd. 2000

# **SEMESTER II**



**COURSE OBJECTIVE:**

- To understand the environmental impact of our own business operations and to help the clients and business partners achieve their environmental ambition.
- To study the foreign exchange acts, terms and the export policies to deal with the global environmental business.

**COURSE OUTCOMES:**

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

- CO – 1 : Explain the concept of International Trade and mode of payment.
- CO – 2 : Discuss important opportunities and challenges in the international environment.
- CO – 3 : Identify the risk involved in the International Trade.
- CO – 4 : Summarize various terminologies related to INCO terms.
- CO – 5 : Assess the issues involved in developing economies.
- CO – 6 : Appraise the functions of Export processing and special Economic Zone.
- CO – 7 : Revise the economic environmental analysis and role of infrastructure.
- CO – 8 : Outline global business environment and global strategic management practices.
- CO – 9 : Explain the concept of Globalization.
- CO – 10 : Identify the Micro Environmental factors.

**UNIT I FOREIGN TRADE 12**

Introduction to foreign trade-Foreign Trade in India-International Marketing / International Monetary System-Mode of Payment in International Trade- Letter of Credit- meaning - L.C-Foreign Exchange Market- Nature and Functions.

**UNIT II RISK MANAGEMENT 12**

Risk Management - FEMA (Foreign Exchange Management Act) importance and role of FEMA- provisions -INCO Terms-UCPDC (Uniform Customs Procedure Document Credit)-importance- role and provisions.

**UNIT III EXPORT POLICY 12**

Introduction to the export policy –meaning – role -Export Policy and Organization for Export-Export Promotion-the concept of -Export Processing and Special Economic Zones-role and importance - advantages (EPZ & SEZ).

**UNIT IV                    ECONOMIC ENVIRONMENT                    12**

Framework of Economic environmental analysis-the factors-Economic and Social development-Role of infrastructure in development-significance-Sustainability and development -Logistics as carrier of Globalization

**UNIT V                    GLOBALIZATION                    12**

Globalization and its impact in development-Logistics - a strategy for sustainable global development-Micro Environmental factors-their issues for Logistics with economic/social relevance of the factors.

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

1. Richard M. Hodgets & Fred Luthans, “International Management”, TMH, 6th Edition, 2006

**REFERENCE BOOKS:**

2. Michael R. Zinkota, Ilkka A Ronkainen, Michael H. Moffet, “International Business Thomson”, Southwestern,10th Edition, 2002.
3. John D. Daniels & Lee H. Radebaugh, “International Business”, Pearson Education-3th Edition, 2006.

**COURSE OBJECTIVE:**

- To understand the basics of market, marketing, marketing environment and business environment and its domain knowledge.
- To understand the core concepts in marketing concepts, critical thinking, problem solving and analysis

**COURSE OUTCOMES:**

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

- CO – 1 : Relate the corporate function of marketing.
- CO – 2 : Outline the macro and micro environment in moulding the company marketing function.
- CO – 3 : Differentiate the consumer and institutional buyer behaviour.
- CO – 4 : Compare and contrast goods and services.
- CO – 5 : Define the target segments for the products
- CO – 6 : Employ the positioning strategies used by the companies for their products.
- CO – 7 : Label the importance of products, branding and new product development.
- CO – 8 : Classify the importance of integrated marketing communications.
- CO – 9 : Dramatise the importance of marketing research in decision making.
- CO – 10 : Choose plan for 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**

Consumer Markets: 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**

Market Segmentation: Levels and Bases for Segmentation, Segmenting Consumer Markets, Business Markets, Market Targeting -Evaluating Market Segments -Product Positioning for competitive advantage, Positioning Strategies.

**UNIT IV                      MARKETING PROGRAMME                      12**

Marketing Programme: Decisions Involved in Product, Branding, Packaging, Product Extension Strategies - Product Line and Product Mix Decisions, New Product Development, Product Life Cycle. Pricing Products, Strategies, Distribution -Channels, Channel Management Decisions, Promotion Mix - Advertising, Sales Promotion, Public Relations, Personal Selling, Promotion Decisions, Place.

**UNIT V                      MARKETING RESEARCH                      12**

Marketing Research and Control: Marketing Research – Course Objectives: & Scope – Research designs – research procedure – data types & sources, sampling techniques, analysis & reporting. Demand Measurement and Sales Forecasting Methods, Estimating Current and Future Demand. Annual Plan Control, Efficiency Control, Profitability Control and Strategic Control, Marketing Audit, Online Marketing. Ethics in marketing.

**Case study:** Marketing strategy Implementation; Market Segmentation / Targeting / Positioning; Product Levels, Pricing

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

1. Philip Kotler and Kevin Lane Keller, Marketing Management, PHI 14th Edition, 20 2. KS Chandrasekar, “Marketing management-Text and Cases”, Tata McGraw-Hill-Vijaynicole, First edition, 2010.
2. Lamb, Hair and McDaniel, Marketing, 8th Edition, Thomson Learning, 2005, Rajan Saxena, Marketing management, TMH, 2006.

**REFERENCE BOOKS:**

1. Keith Blois, Marketing, Oxford University Press, 2005.
2. Ramaswamy V.S. Namakumari S, Marketing Management - The Indian Context, Macmillan India Ltd, 2006.

**COURSE OBJECTIVE:**

- To analyze, plan, implement and controlling the physical flows of materials and finished goods from point of origin to the point of consumption.
- To discuss efficient operations of logistics and develop strategy to reach goals of cost reduction and enhance customer service
- To identify the role of effective supply chain management for collaborative planning
- To discuss the importance of warehouse management & inventory control
- To identify the criteria and measure Supply chain & Logistic performance

**COURSE OUTCOMES:**

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

- CO – 1 : Discuss about the importance of logistics & its role in the Indian Economy.
- CO – 2 : Summarize various activities of logistics to satisfy the end Customers
- CO – 3 : Analyze functional activities of supply chains that process the flow of products
- CO – 4 : Describe the importance of collaborative planning among supply chain partners
- CO – 5 : Appraise the strategies that can be taken to manage inventories.
- CO – 6 : Analyze the functions of warehouse, criteria for selection of warehouse.
- CO – 7 : Examine various trends in Logistics & Supply Chain Management
- CO – 8 : Identify various financial issues in the effective performance of logistics.
- CO – 9 : Justify various criteria for measuring the Supply chain & Logistic performance.
- CO – 10 : Examine integration of IT solutions for Logistics and Supply Chain

**UNIT I OVERVIEW OF LOGISTICS: 12**

Meaning & Significance of Logistics -Role of Logistics in Economy/Business -Functions of the Logistics system-In-bound and Out-bound logistics – Components of Logistics Management.

**UNIT II SUPPLY CHAIN MANAGEMENT 12**

Introduction to Supply chain management - Definition, objectives -functions of Supply chain and drivers -- Managing demand and supply - Lack of supply chain coordination and the Bullwhip effect – Obstacle to coordination – Managerial levers – Building partnerships and trust – Continuous

replenishment and Vendor managed inventories – Collaborative planning, Forecasting and Replenishment.

**UNIT III INVENTORY AND WAREHOUSING 12**

Demand forecasting — Strategic sourcing --Inventory management-Concept and Types of Inventory, Functions of Inventory -Elements of Inventory Costs, Inventory Management – vendor development – Vendor Inventory- warehouse - Warehousing Functions – Types – Site Selection – Layout Design.

**UNIT IV LOGISTICS ADMINISTRATION 12**

Trends of Logistics & Supply Chain Management, Logistics Service Provides (LSP), Supply chain integration -Role of 3 PL and 4 PL - Order Fulfillment-Financial Flow in Supply Chain, Reverse Logistics design and management- Logistics information system.

**UNIT V LOGISTICS & SUPPLY CHAIN PERFORMANCE 12**

Measuring Supply chain & Logistic performance - Financial issues in Logistics - Logistics and Customer Service- Customer Retention. Integrated IT solutions for Logistics and Supply Chain – Customer relationship management – Internal supply chain management – Supplier relationship management.

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

1. Douglas W Lambert, “Fundamentals of Logistics Management, 10<sup>th</sup> Edition.2003

**REFERENCE BOOKS:**

1. Pramod Rao, “Logistics Management”, 11<sup>th</sup> Edition, 2007.
2. John W Langford, “Logistics: Principles & Applications”, 8<sup>th</sup> Edition, 1995.
3. Martin Christopher, “Logistics & Supply Chain Management”, 9<sup>th</sup> Edition, 2010.

**COURSE OBJECTIVE:**

- To explain business/services in maritime technology and logistics within the country and abroad.
- To understand the clientele safe reliable efficient and economic shipping services.
- To understand Maritime Geography, Geography of Trade-Ports, Airports, Law of Carriage of goods by Sea, Arbitration, Ship Sale and Purchase-Financing Purchase and Valuations.

**COURSE OUTCOMES:**

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

- CO – 1 : Discuss the basics of maritime business.
- CO – 2 : Illustrate why sea transport is used.
- CO – 3 : Describe about the various measurements based on stowage, volume of ships.
- CO – 4 : Develop ethics in maritime business
- CO – 5 : Analyze different types of ocean liners.
- CO – 6 : Evaluate the significance and participants of liners.
- CO – 7 : Examine the importance of containerization
- CO – 8 : Appraise various types of containers used in ocean transport.
- CO – 9 : Demonstrate how containerization has helped in multimodal transportation.
- CO – 10 : Analyze, compare container freight rates and interpret various INCOTERMS

**UNIT I INTRODUCTION TO MARITIME BUSINESS 12**

Introduction to Maritime Business, Reasons for Sea Transport, Supply of Ships, Ship Registration, Ship Classification, The Ship- Tonnage and Load Lines, Ship measurement based on volume, Stowage, Types of Ships, Practitioners in Maritime Business-Chartered Ship Brokers, Ethics in Maritime Business, Types of Fraud.

**UNIT II LINERS 12**

Liners- brief history, Role significance Conferences and Freight Tariffs, Liner Consortium Agreements-Alliances-Liner documentation, Liner Agency, agency role- Agent's duties and agent; Risks.

**UNIT III CONTAINERISATION 12**





**COURSE OBJECTIVE:**

- To explore the fundamental concepts of managerial economics, the production functions and the cost functions.
- To have a sound knowledge of the factors affecting the demand and supply of shipping cycles and cost analysis and pricing in shipping.

**COURSE OUTCOMES:**

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

- CO – 1 : Review the fundamental concepts of managerial economics.
- CO – 2 : Compare and contrast demand and supply analysis.
- CO – 3 : Examine the structure of the shipping industry
- CO – 4 : Appraise the shipping market structure.
- CO – 5 : Evaluate the supply and demand of shipping.
- CO – 6 : To criticize and learn about the various costs in the shipping industry.
- CO – 7 : Illustrate on the supply of shipping services.
- CO – 8 : Investigate on the productivity and supply trends of shipping industry.
- CO – 9 : Review on the pricing of shipping services.
- CO – 10 : Clarify the concept of freight futures and options.

**UNIT I FUNDAMENTAL CONCEPTS 12**

Managerial Economics- Meaning, Nature and Scope, Business Decision Making - Role of Managerial Economist, Fundamental concepts of Managerial Economics, Demand Analysis - meaning, determinants and types of demand, Elasticity of demand.

**UNIT II SUPPLY ANALYSIS 12**

Supply Analysis-Meaning and Determinants - production decisions, Production functions, Isoquants, Expansion path - Cobb-Douglas function. Cost Concepts, Cost – Output relationship, Economies and Diseconomies of scale, Cost functions, Market structure- Characteristics, Pricing and Output decisions - methods of Pricing -Differential Pricing, Government intervention and pricing.

**UNIT III STRUCTURE OF SHIPPING INDUSTRY 12**

Structure of Shipping Industry-Oligopoly and Perfectly competitive Shipping markets, Factors affecting Demand & Supply of Shipping, Shipping cycles, Cost analysis in shipping – Fixed costs,

Variable costs – Concept of opportunity cost, The demand for Shipping- Derived Demand, Elasticity of Demand, Demand Measurement, Effect of Substitution, Freight Rate mechanism

**UNIT IV SUPPLY OF SHIPPING 12**

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

**UNIT V PRICING OF SHIPPING SERVICES 12**

Pricing of Shipping Services- Determination of equilibrium pricing in various segments, Forecasting – Concept of Freight Futures and Options

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

1. Martin Stopford, “Maritime Economics”, Taylor & Francis e-library, 10<sup>th</sup> Edition, 1997.
2. Kevin Cullinane, “International handbook of Maritime Economics”, Edward Elgar Publishing Ltd, 9<sup>th</sup> Edition, 2011.

**REFERENCE BOOKS:**

1. Varshney. R.L. &Maheshwari. “Maritime Economics”, (Prentice Hall of India), 10<sup>th</sup> Edition, 2008.
2. Mr. Wayne .k. Talley, “The Blackwell companion to Maritime Economics”, Rutledge, Th Edition, 2014.



International transportation, Carrier, Freight and Fleet management, Transportation management systems-Administration, Rate negotiation, Trends in Transportation.

**UNIT V INFORMATION TECHNOLOGY (IT)**

**12**

Usage of IT applications -E commerce – ITMS, Communication systems-Automatic vehicle location systems, Geographic information Systems.

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

1. David Lowe, Lowe's Transport Manager's and Operator's Handbook 2019
2. Janat Shah, Supply Chain Management, Pearson Education India,2nd edition 2016
3. Raghuram and N. Rangaraj, Logistics and Supply chain Management - Leveraging Mathematical and Analytical Models: Cases and Concepts, New Delhi: Macmillan, 2000.

**REFERENCE BOOKS:**

1. Sunil Chopra, Peter Meindl, Supply Chain Management: Strategy, Planning, and Operation, Pearson, 6th edition 2014.
2. Michael B Stroh, Practical Guide to Transportation and Logistics, Logistics Network, 2006.
3. Alan Rushton, John Oxley, Handbook of Logistics & Distribution Management, Kogan Page Publishers, 2006.

**COURSE OBJECTIVE:**

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

**COURSE OUTCOMES:**

At the end of the course, 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.
- 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.

**UNIT I MULTIMODAL TRANSPORTATION 9**

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 9**

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 9**

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 9**

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

**UNIT V                    CONTRACT**

**9**

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: 45 HOURS**

**TEXT BOOKS:**

1. K. V. Hariharan, Containerisation, Multimodal Transport & Infrastructure Development In India, Shroff Publishers and Distributors Pvt. Ltd, 6thEdition, 2014
2. Hariharan K. V., A Textbook on Container & Multimodal Transport Management, Shroff Publishers and Distributors Pvt. Ltd, 1st edition, 2002.
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, 3<sup>rd</sup> edition 2002.
2. Hutchinson B.G, Principles of Urban Transport Systems Planning, McGraw-Hill Book Company (latest edition), 2013.

**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 9**

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 9**

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 9**

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 9**

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 9**

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

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. Pierre A. David International Logistics: the Management of International Trade Operations 5th Edition 2017.
2. R.H.Ballou, Business Logistics Management, Prentice-Hall, 2004

**REFERENCE BOOKS:**

1. Richard Lloyd Successful Integrated Planning for the Supply Chain: Key Organizational and Human Dynamics Kogan Page; 1 edition March 2018
2. John J. Coyle, Edward J. Bardi and C. John Langley Jr., The Management of Business Logistics - A supply chain Perspective, Thomson Business Information, 10<sup>th</sup> edition 2016.
3. Vinod V. Sople, Logistics Management, Pearson Education, 2<sup>nd</sup> edition 2009



**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:**

At the end of the course, 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 9**

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 safely on the Inland Waterways.

**UNIT II BRIDGE AND TUNNEL 9**

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

**UNIT III SAFETY 9**

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 9**

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

**UNIT V ENVIRONMENT 9**

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: 45 HOURS**

**TEXT BOOKS:**

1. Charles W. Howe, Joseph, Inland Waterway Transportation: Studies in Public and Private Management, 2016.
2. Derek Lundy, The way of a ship Penguin Random House UK, 2004.

**REFERENCE BOOKS:**

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

# **SEMESTER III**

**COURSE OBJECTIVE:**

- To make student able to build an understanding of the fundamental concepts of ERP systems, their architecture, and working of different modules in ERP. Students will also be develop and design the modules used in ERP systems, and can customize the existing modules of ERP systems.
- To understand and able to build an understanding of the fundamental concepts of ERP system.
- To learn ERP architecture, and working of different modules in ERP.
- To comprehend to create and plan the modules utilized in ERP frameworks, and can redo the current modules of ERP frameworks.

**COURSE OUTCOMES:**

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

- CO – 1 : Describe how an integrated information system can support effective.
- CO – 2 : Comprehend the technical aspects of ERP systems.
- CO – 3 : Describe the module in distinguishing the characteristics of ERP software.
- CO – 4 : Map business processes using process mapping techniques.
- CO – 5 : Explain the concepts of reengineering and how they relate to ERP system.
- CO – 6 : Explain the advancement of ERP frameworks.
- CO – 7 : Elaborate the steps and activities in the ERP life cycle.
- CO – 8 : Run of the mill usefulness in an ERP framework.
- CO – 9 : Describe typical functionality in an ERP system.
- CO – 10 : Critically evaluate the ERP implementation packages.

**UNIT I INTRODUCTION 12**

Introduction to ERP, Evolution of ERP, Reasons for the growth of ERP, Scenario and Justification of ERP in India, Evaluation of ERP, Various Modules of ERP, Advantage of ERP.

**UNIT II OVERVIEW OF ENTERPRISE 12**

An overview of Enterprise, Integrated modules, Business Process Mapping for ERP Module Design, Organizational Environment and its selection for ERP Implementation.

**UNIT III ERP AND RELATED TECHNOLOGIES 12**

ERP and Related Technologies, Business Process Reengineering (BPR), Management Information System (MIS), Executive Information System (EIS), Decision support System (DSS), Supply Chain Management (SCM)

**UNIT IV ERP MODULES 12**

ERP Modules, Introduction, Finance, Plant Maintenance, Quality Management, Materials Management, ERP Market. A Comparative Assessment and Selection of ERP Packages and Modules – Case Study

**UNIT V ERP IMPLEMENTATION 12**

ERP implementation lifecycle, issues in implementing ERP packages, pre-evaluation screening, package evaluation, project planning phase, gap analysis, reengineering, configuration, implementation, team training, testing, going live, end-user training, post implementation (Maintenance mode).

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

1. Alexis Leon, ERP demystified, second Edition Tata McGraw-Hill, 2007.
2. Jagan Nathan Vaman, ERP in Practice, Tata McGraw-Hill, 2008.

**REFERENCE BOOKS:**

1. Alexis Leon, Enterprise Resource Planning, second edition, Tata McGraw-Hill, 2008.
2. Mahadeo Jaiswal and Ganesh Vanapalli, ERP Macmillan India, 2009.
3. Vinod Kumar Grag and N.K. Venkitakrishnan, ERP- Concepts and Practice, Prentice Hall of India, 2<sup>nd</sup> edition, 2006.
4. Summer, ERP, Pearson Education, 2008.

## **ELECTIVE COURSES – LOGISTICS & SHIPPING**

**18EMBL31**

**COMMERCIAL GEOGRAPHY**

**4 0 0 4**

### **COURSE OBJECTIVE:**

- To understand the clientele safe reliable efficient and economic shipping services.
- To understand Maritime Geography, Geography of Trade-Ports, Airports, Law of Carriage of goods by Sea, Arbitration, Ship Sale and Purchase-Financing Purchase and Valuations

### **COURSE OUTCOMES:**

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

- CO – 1 : Explain the basics of commercial geography.
- CO – 2 : Summarize the various natural resources.in the world
- CO – 3 : Indicate the geographical environment and commerce.
- CO – 4 : Clarify the various classification of resources
- CO – 5 : Estimate the geographical factors that affect international trade.
- CO – 6 : Analyze India’s trade in commodities.
- CO – 7 : Discuss about port transportation and infrastructure for commodities.
- CO – 8 : Generalize about the major Indian industries and their location and contribution
- CO – 9 : Indicate India’s agricultural resources, major agricultural exports
- CO – 10 : Emphasize the role of climate in agricultural exports.

### **UNIT I COMMERCIAL GEOGRAPHY 12**

Definition of commercial geography and its branches - Geographical Environment and Commerce – World trade pattern in major commodities - Meaning, nature & Use of Resources - Classification of Resources.

### **UNIT II COMMODITIES 12**

Geographical factors affecting International trade - India’s foreign trade of commodities - Characteristics of commodities and their origin, type of transportation used for movement to ports - Port Infrastructure for commodities.

### **UNIT III INDUSTRIES 12**

Role of Industries in Economic Development - Factors of Industrial Location - Major Industries in



**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:**

At the end of the course, 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.

**UNIT I AIR PORTS AND SHIPMENT 9**

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 9**

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 9**

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





**COURSE OBJECTIVE:**

- To describe about Dry cargo ships, flag of convenience, Baltic Exchange, Ship brokers, Trading-Letter of Credit-Market Reporting,
- To know the methods of Ship Employment-Firm offer and Chartering Contracts.
- To study the nature and characteristics, main places of origin and appropriate trade routes of other important cargoes.
- To be aware of Geography of World Trade, Trading Restrictions, Port Restriction, disputes and Professional Indemnity.
- To know the basic dimensions, design and construction details including decks, holds, hatches, derricks, winches, cranes and specialised cargo handling gear.

**COURSE OUTCOMES:**

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

- CO – 1 : Describe the fundamental differences between dry bulk cargo ships
- CO – 2 : Describe the differences in the types of ships employed in dry cargo trade ;
- CO – 3 : Describe the basic dimensions, design and construction details
- CO – 4 : Describe the terminology of measuring ships including dimensions, actual tonnages
- CO – 5 : Describe what information is contained in capacity
- CO – 6 : Describe the central importance of ship classification
- CO – 7 : Describe the nature, characteristics, hazards and stowage requirements
- CO – 8 : Describe the different subdivisions within these categories
- CO – 9 : Describe the nature and characteristics, main places of origin
- CO – 10 : Describe the stowage factors of goods.

**UNIT I DRY CARGO SHIPS****9**

Introduction - Dry Cargo Ships- Types Of Ships, Safe Working Load, Self-Trimming, Tweendeckers, Cargo Stowage, Cargo Gear, Air Draft, Lash - Dry Cargo Ship Tonnages, Load Lines, Dimensions And Cargoes - Tonnage-Displacement Tonnage-Deadweight-Dwat-Dwcc, Plimsoll - Lines-Grain Capacity-Bale Capacity, And Types Of Cargoes - Freight Markets And Market Practice, Baltic Exchange, Charterer, Ship Owners, Flag Of Convenience, Agency Agreement-Operators-Ship Brokers, Trading-Letter Of Credit-Market Reporting - Methods Of Ship Employment-Firm Offer,

Chartering Contracts - List Of Voyage Charter Party Clauses, Elements Of Voyage Charter Party, List Of Time Charter Party Clauses, Bareboat Charter - Factors In Selecting Ships, Cargoes And Chartering Alternatives

**UNIT II FINANCIAL ELEMENTS OF CHARTER PARTIES 9**

The Market Functioning, Market Indices, Role Of Brokers, Market Reports And Agreements - Dry Bulk Market Factors: Trade, Vessel Demand, Vessel Supply, Earnings, And Vessel Prices Financial Elements Of Charter Parties, Dead Freight - Bill Of Lading-Bunkers, Laytime – Laytime Definition For Charter Parties 2013, Calculation Of Laytime, - List Of Very Important Decisions - Voyage Estimating - Itinerary-Cargo Quantity-Expenses-Income-Demurrage Trades, Despatch Trades, Port Charges, Bill Of Lading And Cargo Claims, Functions Of B/L, Elements Of B/L, Types Of B/L, B/L At Loading Port- B/L At Discharging Port, Hague Rules, Hague- Visby Rules, Hamburg Rules, Rotterdam Rules, Carriage Of Goods By Sea- Seaworthiness - Himalaya Clause

**UNIT III SAFETY CERTIFICATES AND SURVEYS 9**

Waybills-Insurance-Cargo Damage, Safety Certificates - Loadline Certificates/Cargo Gear Certificate-Maritime Declaration Of Health Certificate -Surveys And Inspections, Charter Parties, Time Charter, Delivery Owner’s Agent-Agent’s Influence Upon Charter, Port Agent’s Role In Charter Party Negotiations/Implementation.Time Counting, Importance Of Time-Notice Of Readiness, Demurrage & Dispatch, Statements Of Facts &Timesheets-Stoppages, Operations - Arrangement And Supplying Of Services On Behalf Of Principal, Cargo-Ship- Crew Repatriation, Desertion, Mail.Charter Party And Cargo Claims, Charterer’s Duties, Rights, Jurisdiction.

**UNIT IV CARGO DOCUMENTATION 9**

Letter Of Indemnity, Collecting Freight, Discharging Port Agent ,Legal Principles Of Charter Parties & Bills Of Lading Ng-Functions Of Bill Of Lading, Mate’s Receipt, Manifest. Port Community System (Pcs) And Ice Gate. List Of Documents And Certificates Be On Board, Statement Of Facts And Time Sheets , Port Agents And Law – Introduction, Practical Duties And Obligations, Noting Protest, P&I Associations, General Average, Relationships With Principals –Disbursement Accounting, Division Of Costs, Final Disbursement Invoice, Operational Accounting, Office Organization.

**UNIT V GEOGRAPHY OF WORLD TRADE 9**

Trading Restrictions, Port Restrictions, Disputes And Professional Indemnity, P&I Clubs – Alternate Dispute Resolution Methods – Arbitration Mediation – Conciliation - Voylay Rules. &Fonasba -

Losses And Claims – Do's And Don'ts Of A Chartering Manager-Afra – Post Fixture Aspects Of Chartering – Charter Party Disputes: Voyage Charters – Arrived Ship; Lay- Time Calculations; Deductions From Freight; Excepted Periods. Time Charters – Off-Hire Periods; Final Voyage; Payments Of Hire; Bunkers; Performance Clauses

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. Burke & Russell John, "International Logistics and Freight Forwarding", 6th Edition, 2001.

**REFERENCE BOOKS:**

1. Victor Dover Shipping Industry, "Constitution & Practice", Victor Dover, (Mac Donald & Evans), 8th Edition, 2008.
2. Frank Worsford, "Freight Transport & Environment", Frank Worsford, (Psychology Press), 9th Edition, 2008.

**COURSE OBJECTIVE:**

- To Acquire basic knowledge about Development of Liner Service, Liner versus Tramp Service
- To study the Cargo handling, Stowage Unitization and Containerization, Vessel loading and discharging process.
- To understand a general overview of Dangerous Goods (IMO),
- To learn the liner trade routes, major liner ports and liner operations,
- To Know about the developments in Freight Forwarding and NVOCC operations and their impact on Liner Trade.

**COURSE OUTCOMES:**

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

- CO – 1 : Describe the characteristics of liner services and their differences from tramp services.
- CO – 2 : Locate the main liner trade routes in the world
- CO – 3 : Classify of the basic differences between east/west and north/south trades.
- CO – 4 : Explain the different service options including round the world (RTW).
- CO – 5 : Distinguish the different types of businesses involved in the liner trades
- CO – 6 : Define the role of the main trade/operator organisations, and regulatory bodies
- CO – 7 : List the different types and sizes of container ships
- CO – 8 : List the types of ro-ro ships including passenger and freight ferries
- CO – 9 : Define the liner trade concepts in International Shipping industry
- CO – 10 : Describe the knowledge in unitization concept and INCOTERMS.

**UNIT I BACKGROUND AND DEVELOPMENT LINER TRADE 9**

History of Liners, Liner trades and Tramp trades -Their evolution and development, The Development of Unitization and Containerization , Concepts of Liner trade, Liner operations, Vessel loading and discharging , Liner trade routes, Major Liner ports, Liner service options, Liner Trade – ship types - Tonnages, pseudo tonnages, Cargo measurements & capacities, Container ships, Types of container ships, Ro-Ro Barge carrying vessels, Refrigerated cargo ship, Conventional (Break bulk) vessels, Future vessel developments, Economy of scale, Shipboard handling equipment.

**UNIT II CARGOES, LINER CARGOES 9**

Dangerous Goods- IMO special goods , Cargo handling and other methods of lifting cargo, Port handling equipment , Port terminals, Cargo stowage- stowage factors, unitization/ multi- modalism /Containers, Container dimensions, Types of container and other container terminologies, Container inventory, Owning/Leasing, Meeting the demand for containers, Tracking the container fleet, Container control, FCLS, LCLS & ICDS, Container Freight Stations, Role of Ship's Officers & Ship's Agent, Liner Shipping operations - Accounting/ Budgeting/ Freight collection, Port disbursements.

**UNIT III FREIGHT FORWARDING, NVOCCs 9**

Evolution and Development of Freight Forwarding, Features of Freight Forwarding, Different modes of International freight - Advantages and disadvantages, Sea Freight and Air Freight Forwarding and International Freight Forwarding Networks. Insurance and Protection & Indemnity Clubs, Conferences, consortia, Alliances & Independent- Conference system, Monopoly investigations, Development of the conference system, Conference and Competition law, FMC, Mergers/ Takeovers / Container Consortia, Alliance around the world.

**UNIT IV LAW OF CARRIAGE OF GOODS & DOCUMENT 9**

Carriage of Goods by Sea Act, Use of Bill of Lading in Liner trade, Rules of Carriage of Goods, Hague-Visby Rules 1968, Hamburg Rules 1978, Rotterdam Rules 2009 and Multimodal Transportation of Goods Act 1992 (India), Bill of Lading documentary credits, Bill of Lading clauses, Printed clauses – Functions of Bill of Lading, Other forms of Bill of Lading, House Bill of Lading, Master Bill of Lading, Combined Transport and other Liner documents. Inland Transportation, CONCOR and other Container Rail Operators.

**UNIT V THE EXCHANGE OF GOODS TRANSFER & LAW 9**

Transfer of funds from country, Methods of payments in International trade, International contracts of sale, Documentary Credit, INCOTERMS, Legal aspects of the liner trades, The carrier insurance and the Carrier's liability for the cargo, Liabilities of the Agent, Legal aspects of the Bill of Lading, Cargo claims, General Average (GA), Security, ISPS code, Law of Agency, Conflict of Interest, Agent in the Port, Marketing and Sales function, General agency accounting, Principal's duties/ remuneration/ duration.

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. Allen Edward Branch – Elements of Shipping (Routledge) 8<sup>th</sup> Edition, 2007

2. Mr. JanoJanson& Dan Shneerson- Liner Shipping Economics- Routledge, (Mac Millan), (Mac Millan), 6<sup>th</sup> Edition, 1987
3. Mr. Burke & Russell John- International Logistics And Freight Forwarding, (Mac Millan), 8<sup>th</sup> Edition, 2001

**REFERENCE BOOKS:**

1. Containerisation, Multimodal Transport and Infrastructure Development in India (Shroff Publishers and distributors Pvt. Ltd., )n 5<sup>th</sup> Edition, 2007
2. G.Raghuram, “Shipping Management – Cases &Concepts, (Mac Millan), 6<sup>th</sup> Edition, 2008
3. Victor Dover Shipping Industry, “Constitution & Practice”, (Mac Donald & Evans), 6<sup>th</sup> Edition, 2010.

**COURSE OBJECTIVE:**

- To describe the law of agency, law of torts, ownership and
- To identify the process of registration of ships, laws legislation,
- To know the remedies for breach of contract and contract of guarantee.
- To study the international marine laws, marine insurance, marine acts.

**COURSE OUTCOMES:**

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

- CO – 1 : Define the development of marine insurance and the shipping industry
- CO – 2 : Describe the process of Risk Management based on ISO 31000:2900.
- CO – 3 : Explain the process of purchasing marine hull insurance, marine cargo insurance
- CO – 4 : Examine underwriting considerations, premium rates, express warranties
- CO – 5 : Discuss the marine insurance claims processing
- CO – 6 : Explore issues relating to marine insurance claims disputes,
- CO – 7 : Debate the challenges and concerns to faced by the marine insurance in India
- CO – 8 : Categorise the different stakeholders participating in the process
- CO – 9 : Prepare the Salvage Charges, Subrogation and preparation of Letter of Subrogation
- CO – 10 : Clarify the 3<sup>rd</sup> party Liability, Institute Cargo clauses Institute War clauses

**UNIT I SHIPPING LAWS 9**

Types Of Contract Of Carriage – Indian Carriage Of Goods By Sea Act, 1856, - Carriage Of Goods By Road Act 2007 – Carriage Of Goods By Air Act – Carriage Of Goods By Indian Railways – Introduction Bill Of Lading — Introduction Multimodal transportation Of Goods – Multimodal Transportation Of Goods Act 1993 – International Conventions

**UNIT II VARIOUS TYPES OF CONTRACTS 9**

Laws – Law Of Torts – General Principle Of Law Of Torts – Types Of Torts And Remedies In Tort - Law Of Agency – Principal Agent Relationship – Indian Contract Act 1872 Important Provisions - Contract Of Indemnity – Contract Of Guarantee – Doctrine Of Frustration -

**UNIT III LAW RELATING SHIPS 9**

Registration Of Ships - Ownership – Ships Arrest / Liens / Mortgages - Admiralty Law – Alternate Dispute Resolution – Arbitration



**UNIT IV INTRODUCTION MARINE INSURANCE 9**

Introduction Marine Insurance, International Marine Insurance market-credit system, Marine Insurance companies – Protection & Indemnity associations, Marine Insurance Act- 1906, Principle of insurance interest-Cargo Interests-Incidental Interest-Assignment.

**UNIT V MARINE INSURANCE POLICY. 9**

Principle of Utmost Good Faith –Time & Voyage Insurances - Statutory Exclusions-Injury, Marine Insurance Policy-Insured Values-Franchises, Excesses&Deductibles, Measure of Indemnity- Total/Partial loss of Ship/Goods – Salvage&SalvageCharges, Subrogation-Letter of Subrogation-3<sup>rd</sup> party Liability-General Averages, Institute Cargo clauses-Institute War clauses- International Hull clauses-Exclusions-Claim Provisions.

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. Simon Baughen, “Shipping law”, Institute of Chartered Ship Brokers, Routledge, 10<sup>th</sup> Edition, 2015.

**REFERENCE BOOKS:**

1. Bemire, “The Law Relating Marine Insurance”, Jain Book Agency, 6<sup>th</sup> Edition, 2012.
2. Legal Principles in Shipping Business, (Institute of Chartered Ship Brokers).

**COURSE OBJECTIVE:**

- To be aware of the Customs laws related to Prohibitions on importation and exportation of goods.
- To know about Customs procedures and basics in customs clearance.
- To know about export policies and gain knowledge about various organization involving in export procedures.
- To learn the exemption practice from customs duty,
- To study the powers provisions and procedures of Customs authority

**COURSE OUTCOMES:**

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

- CO – 1 : Define the basics of customs clearance.
- CO – 2 : Describe about the various customs laws and prohibitions of goods in the customs laws
- CO – 3 : Explain about the customs duties.
- CO – 4 : Clarify the duties on various types of goods.
- CO – 5 : Express about customs clearance and payment of duty.
- CO – 6 : Recall about online filling of the various customs documents.
- CO – 7 : Explain about Electronic Data Interchange in customs for exchanging customs documents
- CO – 8 : Describe about various aspects of warehousing with reference import and export.
- CO – 9 : Describe about the customs clearance procedures in airports and in sea ports.
- CO – 10 : Explain about coastal goods and coastal vessels.

**UNIT I OFFICERS OF CUSTOMS AND THEIR ROLES****9**

History of Customs – World Customs Organization- Role of Central Board of Excise and Customs – Directorate General of Foreign Trade - Directorate General of Commercial Intelligence and Statistics(DGCI&S) - Customs Brokers Licensing Regulations-Preliminary-Definitions - Officers of Customs-Classes-Appointments-Powers of Officers- Entrustments of Functions of Board - Appointment of Customs Ports, Airports, Warehousing Stations-Power declare places be Warehousing Stations. Prohibitions on Importation and Exportation of Goods-Power Prohibit - Power of Central Government notify goods-Precautions be taken by persons acquiring notified Goods - Prevention or Detection of Illegal Export of Goods-Power of Central Government specify goods



**COURSE OBJECTIVE:**

- To provide professional study of the container transport Management of liner shipping with respect to the international maritime business environment.
- To understanding of current developments in the liner shipping, and to enable them
- To understand the application of quantitative techniques in container transport management decision making.

**COURSE OUTCOMES:**

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

- CO – 1 : Identify the principal container ship types, characteristics, layout, sizes and tonnages
- CO – 2 : Describe the modes of handling containers in international transport operations
- CO – 3 : Analyze the commercial and management aspects of containers in seaborne trade
- CO – 4 : Explain the nature of operating and voyage costs in scheduled liner shipping
- CO – 5 : Discuss the framework and layout of container logistics
- CO – 6 : Explain the importance of capital costs, the influence of bunker costs on the industry
- CO – 7 : Understand some of the documentation used in the shipping process
- CO – 8 : Discuss the structure of world containerized trade routes and the major container ports
- CO – 9 : Present intermodal discipline in an integrated form
- CO – 10 : Illustrate the solution of business related problems in intermodal operations.

**UNIT I MULTIMODAL TRANSPORT 9**

What is a container, Types of containers- Multimodal Transport- Advantages- Freight Rate Structure & Shipping Regulations, Principal factors impacting ocean freight rates- International Commercial Terms- Multimodal Transport Network System- Advanced system in Container management - Sea Freight Container details- Customs connection & Multimodal Transport in International Trade- Maritime Frauds. Container crimes. ICT in Multimodal transport

**UNIT II CONTAINERISATION 9**

Introduction to the Container Business and Role of Container Terminals. Containerization– the Beginning of the container revolution and changes in Liner trades in the modern supply chain -The growth of Containerization in global trade. Types and functions of container terminals Gateway,

transshipment, transit, dedicated, common user. Terminal ownership- Global Container terminal operators- Regional terminal operators.

**UNIT III CONTAINER TERMINOLOGY 9**

Container characteristics- ISO standards- Types and purpose- Container terminology-Container integrity and security. Container packing. Container seals and securing-Techniques-Container ownership and management- Owning vs. Leasing- Storage, maintenance and repair. Container ship types, sizes and characteristics-Layout and design of a modern Containership- Lack of deck obstructions, speed. The economics of container ship operations owning vs. Chartering – Operating costs.

**UNIT IV INFRASTRUCTURE AND LAYOUT 9**

Infrastructure and layout of container terminals - Berth and quay characteristics- Apron width, Quay crane rails - Container yard size, layout and markings - Container Freight Station (CFS) - Gates, offices, maintenance facilities, fencing and traffic control. Types and purpose of Equipment used in container terminals - Ship to shore handling equipment - Yard equipment for Transfer, storage and delivery - CFS and other terminal equipment-Terminal automation- Current Trends

**UNIT V SHIP AND QUAY OPERATIONS 9**

Container Terminal Operations - Ship and quay operations - Discharge and load procedures - Crane numbers and productivity. Yard operations- Performance and planning- Yard Management- Storage and delivery. Gate operations - Layout and traffic flows - Security and inspections.CFS operations - Outturns and customs inspections - Repacking and value adding. Container terminal resourcing- Managing staff numbers- Managing equipment matrix. Use of IT in container terminal operations - Terminal Operating Systems (TOS) - Electronic Data Interchange (EDI). Key Performance Indicators (KPIs) for terminal operations- Management and environment metrics - Contractual KPIs. International Maritime Dangerous Goods (IMDG) Code, hazardous cargoes storage and contingency plans- Identifying and avoiding risks of injury and accidents in terminals. Security management in container terminals-The International Ship and Port Facility Security (ISPS) -Code - Container scanning-Perimeter integrity – Stowaways.

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. Dr. Hariharan K. V, “Container & Multimodal Transport Management”, Shroff Publishers and Distributors Pvt. Ltd, 1st Edition, 2002.

2. Kap Hwan Kim, Hans-Otto Günther, “Container Terminals and Cargo Systems: Design, Operations Management, and Logistics Control Issues”, Springer; 1st Edition, 2010.
3. Evrim Ursavas Guldogan , “Port Operations and Container Terminal Management: with applications”, Springer ,6th Edition, 2011.

**REFERENCE BOOKS:**

1. Wiley, “Port Operations and Container Terminal Management”,Evrim Ursavas Guldogan, Springer, Latest Edition.
2. Urgan Sorgen Frei, “Port Business” BoD Books, 2nd Edition. 2000.

**COURSE OBJECTIVE:**

- To learn about the inland transportation based on the globalization and international marketing.
- To gain knowledge on Inland Container Depots (ICD) and Container Freight Station (CFS).
- To learn about the installation and procedure of CFS and ICD
- To learn about the warehousing and material handling system.

**COURSE OUTCOMES:**

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

- CO – 1 : Demonstrate the inland transportation based on the globalization
- CO – 2 : Define the fundamental concepts of Container Freight Station (CFS) and Inland Container Depots (ICD)
- CO – 3 : Explain the implementation of Inland Container Depots (ICD)
- CO – 4 : Emphasize the implementation of Container Freight Station (CFS)
- CO – 5 : Acquaint on on the concepts of Containerization.
- CO – 6 : Employ the concepts of Palletization.
- CO – 7 : Assess the documentation for containers in port.
- CO – 8 : Categorize the various material handling systems in Containerization.
- CO – 9 : Develop expertise on the concepts of warehousing.
- CO – 10 : Appraise the various material handling equipment in warehousing.

**UNIT I INTRODUCTION TO INLAND TRANSPORT 9**

Development of Inland Transport in India-Importance-Introduction to Terminals – Post Globalisation-Development of CFS and ICD in India and current status-Role of CFS and ICD in International Marketing-Functions of CFS and ICD-Basic difference between CFS and ICD.

**UNIT II INSTALLATION AND PROCEDURE OF CFS/ICD 9**

Setting up of CFS and ICD-Licensing procedure- IMC-Infrastructure requirements -Operational System- Basic Concepts of Cargo Work---Documentation, imports and exports- Duties and responsibilities of CFS/ICD operators-Bill of entry and Shipping Bill.

**UNIT III INTRODUCTION TO CONTAINER TERMINOLOGY 9**

Unitisation-Containerisation and Palletisation-Different types of Cargo-handling of refrigerated and

deck cargos- Types of Containers-Advantages and Disadvantages –marking and fitting in a container-ISO containers- tracking of container movement including empty containers- Barcode and RFID technology-Applications and Benefits

**UNIT IV LICENSING,DOCUMENTATION 9**

RO-RO concept- Licensing Procedure-Code of Safe Practice-SOLAS- development of dedicated container terminals in major ports –various material handling equipments used in conainer terminals –documentation-PNR containers.

**UNIT V WAREHOUSING ,GENERAL CONSIDERATION,ASRS 9**

Warehousing stations-Boarding stations-Limits of Customs area-Effective performance systems- Characteristics-Principles of material handling -Types of material handling equipment Advantages and Disadvantages-General Considerations-ASRS,AGV – Major benefits of ASRS and AGV-recent trends.

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. Mixing Inland &Coastal Water- C.RobertKoh And John.E 1979 Publisher (Elsevier)2013
2. Logistics And Management –Reji Ismail 2008

**REFERENCE BOOKS:**

1. Inland Waterway Transport –ProffessorCharles.W.Howethe Identification &Classification Of Inland Ports –Sarajejan Leitner-2001



**COURSE OBJECTIVE:**

- To know the role of distribution in supply chain, distribution network planning.
- To cognize the role of distribution in e-business, role of warehouse and transportation, distribution requirement planning.

**COURSE OUTCOMES:**

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

- CO – 1 : Deal with some of the common challenges facing delivery managers.
- CO – 2 : Enumerate the key elements and stages in building a delivery plan.
- CO – 3 : Encapsulate the concepts and contribute to the delivery management process.
- CO – 4 : Evaluate your product/service range and suggest alternatives for performance.
- CO – 5 : Develop appropriate delivery strategies based on an analysis of the lifecycles
- CO – 6 : Analyze a portfolio of products/services and understand the role of your delivery
- CO – 7 : Clarify role and responsibilities of a fulfillment manager.
- CO – 8 : Maximize the effectiveness of client interactions and improve the process.
- CO – 9 : Adapt to changing delivery requirements.
- CO – 10 : Integrate automation in the delivery management process.

**UNIT I FACILITY LOCATION 9**

Facility location -meaning-Classical location problems-Factors-Strategic planning models for location analysis-location models-multi objective analysis of location models-integrated models location analysis-location models-multi objective analysis of location models-integrated models.

**UNIT II DISTRIBUTION 9**

Distribution: Role of distribution -Role of Distribution in Supply chain.-cycle view of supply chain - Role of Ware house and Transportation in Distribution. Distribution channels – Functions, resources and operations in Distribution

**UNIT III DISTRIBUTION NETWORKS 9**

Distribution Networks - Designing Distribution network- models of Distribution network- and its features, advantages and disadvantages of Distribution network – Factors-Influencing Distribution Network Decisions- Distribution Resource Planning.

**UNIT IV DISTRIBUTION NETWORK STRATEGIES 9**

Distribution network planning,-meaning-role-Network Design-Strategies & Network Design Optimization Approach and Techniques of Network Design. Network Infrastructure.

**UNIT V**

**E-BUSINESS**

**9**

E-business-concept-importance -Role of Distribution in e-business. Benefits of software in Distribution planning - Distribution Requirement Planning (DRP) and functions – B2B and EDI – Terminal Networks – Types and Roles.

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. Michael B Stroh, Practical Guide to Transportation & Logistics, Pearson Education, 6<sup>th</sup> Edition, 2009.

**REFERENCE BOOKS:**

1. Alan Rushton, John Oxley, Kogan, Handbook of Logistics & Distribution Management, 2006
2. Janat Shah , Supply Chain Management, Pearson Education 3th Edition,, 2010
3. Janat Shah, Supply Chain Management and Advanced Planning, Springer, 11th Edition, 2008.
4. Robert Johnston, Delivery management, Pearson, 4th edition, 2012.

**COURSE OBJECTIVE:**

- To understand multimodal transport, the details of customs, multi modal transport act,
- To impart practical knowledge on prevention and detection of illegal export goods, liability of MTO, appointment of customs ports, equipment and maintenance of motor vehicles.

**COURSE OUTCOMES:**

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

- CO – 1 : Present the fundamental rules on transport law and international sales
- CO – 2 : Identify relevant transport law problems and legal arguments
- CO – 3 : Place specific problems in the transport law frame work in a way
- CO – 4 : Analyse complex problems within transport law, argue in favour of various solutions
- CO – 5 : Communicate and formulate her/his knowledge and arguments professionally
- CO – 6 : Explore the applicable legal regimes in form of international transport conventions
- CO – 7 : Present an overview on the customs Act
- CO – 8 : Compare and contrast the contracting for carriage, types of contracts for transportation
- CO – 9 : Evaluate the existing customs tariff
- CO – 10 : Encapsulate the existing international trade laws for real time applications.

**UNIT I MOTOR VEHICLE ACT 1988 9**

Motor vehicle Act 1988, Statement of objects and Reasons, Corresponding Law, Definitions, Licensing of drivers of motor vehicles, Registration of motor vehicles, Control of transport Vehicles, Offences, Penalties and Procedures, control of traffic, Insurance of motor vehicles Against third party risks- Motor Vehicles Amendment Bill 2017.

**UNIT II CENTRAL MOTOR VEHICLES RULES 9**

Central Motor vehicles rules 1989 and Tamil Nadu motor vehicles rules, Definitions, Licensing of Drivers of motor vehicles, Registration of motor vehicles, control of transport vehicles, Construction, Equipment and Maintenance of motor vehicles, Special rules applicable to all public service vehicles, Special rules applicable to trailers.

**UNIT III MULTIMODAL TRANSPORTATION 9**

Multimodal transportation of goods act 1993, Statement of objects & Reasons on the Multimodal transportation of goods act 1993, proposed amendments to the multimodal Transportation goods act 1993, Powers and Functions of the Competent Authority, Liability of the MTO, Justification.

**UNIT IV CUSTOMS ACT 1962 9**

Customs Act 1962, short title, Extent and commencement, Definitions, Officers of customs, Appointment of customs ports, Airports, Warehousing stations, etc, Prohibitions on importation And exportation of goods, Prevention and detection of illegal export of goods, Power to exempt From the provisions of chapters iv-a and iv-b, levy of and exemption form-Amendments in customs act 1962.

**UNIT V CUSTOMS DUTIES 9**

Customs duties, indicating amount of duty in price of goods, etc., for purpose of re-fund, Advance rulings, Provisions relating to conveyances carrying imported or exported goods, Clearance of imported goods and export goods, Goods in transit, Confiscation of goods and Conveyances and imposition of penalties, Settlement of cases, appeals and revision, Offences and prosecutions, Miscellaneous.- Revised customs duties rate

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. Marian Hook, Multimodal Transport Law-Kluwer Law International, 12th Edition,2010.

**REFERENCE BOOKS:**

1. Motor Vehicle Rules 1989 - M.Ajmal Khan, M.Ghanagurunathan, A.P.Ramasamy, ATC Radhakrishnan, Motor Vehicle Rules, 1989.
2. S.Pattabhiraman, The Motor Vehicles Act, Vidya Law House, 2010.
3. R.A.Garg, Commercial Law Publishers. The Customs Act, 1962.

**COURSE OBJECTIVE:**

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

**COURSE OUTCOMES:**

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

- CO – 1 : Identify and select export product
- CO – 2 : List methods of marketing
- CO – 3 : Explain the process for obtaining quality certification
- CO – 4 : Enumerate the types of marine insurance policies
- CO – 5 : State the export and import procedure.
- CO – 6 : Describe 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 : Summarize the export promotion council
- CO – 10 : Summarize the commodity boards

**UNIT I EXPORT 9**

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 9**

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. Electronic Filing of import and export documents.

**UNIT III EXPORT CONTRACT 9**

Steps in Export Procedure – Export Contract – Forward Cover – Export – Finance Institutional Frame worked for export Finance – Excise Clearance – Pre-shipment Inspection – Methods of Pre-shipment Inspection Marine – Insurance – Role of Clearing and Forwarding Agents – Shipping and Customs Formalities – Customs EDI System – Negotiation of Documents.

**UNIT IV PRE-IMPORT PROCEDURE 9**

Realization of Exports Proceeds – Pre-Import Procedure – Steps in Import Procedure – Legal Dimensions of Import Procedure – Customs Formalities for Imports – Warehousing of Imported goods – Exchange Control Provisions for Imports – Retirement of Export Documents – Town of Export Excellence. Recent Amendments.

**UNIT V FOREIGN TRADE POLICY 9**

Policy and Institutional Framework for Exports and Imports Foreign Trade Policy – Highlights – Special Focus Initiatives – Duty Drawback – Deemed Exports – ASIDE – MAI & MDA – Star Export Houses – EPCG Scheme – Incentives for Exporters – Export Promotion Councils – Commodity Boards – FIEO – IIFT – EOUs – SEZs – ITPO – ECGC – EXIM Bank.-India New Foreign Trade Policy 2015 - 2020

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. Thomas E. Johnson, “Export/Import Procedures and Documentation”, Amacom; 4<sup>th</sup> Edition, 2010.
2. Rama Gopal, CA.C, “Export Import Procedures - Documentation and Logistics”, New Age International, By: Shri C, 1st Edition, 2006.
3. Rai, Ushakiran, “Export Import & Logistic management”, AMACOM publication, 2<sup>nd</sup> Edition 1996.

**REFERENCE BOOKS:**

1. Usha Kiran Rai, “Export-Import and Logistics Management”, Asok Publication, 8th Edition, 2000.
2. T E. Johnson, D L. Bade, “Export/Import Procedures and Documentation”, AMACOM publication. 6<sup>th</sup> Edition, 2011.
3. Thomas E Johnson and DonnaL Bade, “Export and Import Procedures and Documentations”, Amacom book, 4th edition 1996.

## **ELECTIVE COURSES – SUPPLY CHAIN**

**18EMBL42**

**WAREHOUSING & INVENTORY MANAGEMENT**

**3 0 0 3**

### **COURSE OBJECTIVE:**

- To familiarize with the functioning and management of warehousing and inventory operations.
- To gain in-depth knowledge in material requirement planning and costs associated with warehousing and accounting for inventories.

### **COURSE OUTCOMES:**

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

- CO – 1 : Explain the basics of warehousing.
- CO – 2 : Demonstrate the various warehouse operations.
- CO – 3 : Analyze the various warehousing decisions.
- CO – 4 : Outline the various types of warehouses.
- CO – 5 : Apply the various costs involved in a warehouse.
- CO – 6 : Summarize the storage systems used in a warehouse.
- CO – 7 : Evaluate the inventory management in the supply chain
- CO – 8 : Measure the various inventory control techniques.
- CO – 9 : Elaborate the use of warehouse management systems to manage warehouse operations.
- CO – 10 : Compare the various manual and automated material handling systems

### **UNIT I INTRODUCTION TO WAREHOUSING 9**

Introduction to Warehousing -Types, Decisions and Operations, Selection of Location for a Warehouse, Layout of a Warehouse, Importance & Scope of Inventory Control, Types of Inventory, Inventory Control, Selective Inventory Control.

### **UNIT II WAREHOUSE OPERATION 9**

Warehouse and Inventory Operations, Role of Warehouse in Distribution system, Using WMS for Managing Warehouse Operations. Basics, Documents, Receiving Scheduling, Unloading, Palletization, Stock Update, Location and Zone Management.

### **UNIT III ROLE OF INVENTORY MANAGEMENT 9**

Importance of role of inventory, Inventory Management Systems, Replenishment of Inventory,

Forecasting Techniques, Selective Inventory Control, Economic Order Quantity, Safety Stocks, Inventory Management Systems - execution -Ratio Analysis on Inventory, Profit Margin.

**UNIT IV MATERIAL REQUIREMENT PLANNING 9**

Costs associated with Inventories, Material Requirement Planning, Accounting for Inventories, Purpose of Inventory, Goods, Types of Goods, Finished Goods Inventories, General, Management of Inventory, Stocks Types of Stocks, Tracking the Paper Life.

**UNIT V INVENTORY 9**

Work-in-Process Inventories, Finished Goods & Spare Parts Inventories, Multi-Echelon Inventory Systems, Spare Parts Inventories, Use of Computers in Inventory Management Evaluation of Performance of Materials Function, Criteria and methodology of evaluation.

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. Sunil Chopra and Peter Meindl, Supply Chain Management Pearson Education Asia, 3<sup>rd</sup> edition, 2007

**REFERENCE BOOKS:**

1. Simchi-Levi, David, "Designing and Managing Supply Chain", Tata McGraw Hill, 3<sup>rd</sup> Edition, 2007.
2. David E Mulcahy, "Warehouse Distribution and Operations Handbook, McGraw Hill, 6<sup>th</sup> Edition, 1993.



**COURSE OBJECTIVE:**

- To develop countries import scarce raw materials and capital goods and advanced technology required for rapid industrial development.
- To be aware of goods in short supply are also imported to make up the deficiency.

**COURSE OUTCOMES:**

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

CO – 1 : Apply key concepts and theories in the field of procurement management

CO – 2 : Contribute to the selection and design of appropriate approaches

CO – 3 : Analyse and apply appropriate techniques and methods

CO – 4 : Evaluate and measure alternative procurement management

CO – 5 : Leverage resources of a group to critically analyse situations

CO – 6 : Extract value by developing strategies around each category of spend.

CO – 7 : Capable of using state-of-the art distribution practices to implement strategic

CO – 8 : Critically examine and reflect on the function of procurement, in local

CO – 9 : Demonstrate needed skills in negotiating pricing mechanism

CO – 10 : Apply procurement theories in workplace and create adding value to the organization

**UNIT I PROCUREMENT MANAGEMENT 9**

Procurement Management - Evolution, Scope and Objectives - Interface with other functions- Global Business - Cultural and Social Influences - Importing, Exporting, and International Trade- Governmental and Legal Influences-Economic and Geographic Influences -Currency and Risk Management-Objectives for Global Procurement Management - Cultural and Social Influences- International Communications-International Trade Environment

**UNIT II FORECASTING 9**

Forecasting - Methods of forecasting - Moving Average Method, Regression Analysis, Exponential Smoothing Method- Material Requirement Planning - Advantages over conventional planning (Order Point Method) - Master Production Schedule - Bill of Materials - Material flow in MRP.

**UNIT III CUSTOMS ACT 9**

Customs Act – other acts relating to export/import – Formalities for commencing – processing of export order – customs formalities – Export documentation – role of ECGC in export promotion –

terms of shipment – Export Promotion council - Role and functions of Export Promotion council, Commodity boards, Directorates of commercial intelligence and statistics, Indian trade promotion organization, IIFT. Export: Types of exporters-Registration of exporters. Major Export from India. Facilities available to EOUs, SEZs, and Status holders duty drawback procedures other incentives.

**UNIT IV DOCUMENTATION 9**

Documentation - Performa invoice, commercial invoice and its attestation, packing list, Inspection, certificate, certificate of origin, GSP certification, shipping bills, A.R, A.R(4) forms, Mate receipts, GR-Forms or SDF, Marine insurance policy, ECGC policy, bill of exchange, bank certificate for Export B/L, AWB, Special Consular Invoice- bill of entry and airway bill.

**UNIT V STRATEGIC SOURCING 9**

Strategic Sourcing: Introduction, Scope – Advantages, Objectives, Sourcing plan. Supplier evaluation, selection & development. Category buying & management process, value-to-price relationship, Supplier relationships across organization. Developing & implementing multi-year contracts

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. Vance, Charles m, Paik, Yongsun, “Managing A Gobar Workforce Challenges and Opportunity In International HRM”, 2<sup>nd</sup> Edition, Eastern Economic Editors, Latest Edition.2013.
2. Parasram, “In Cotermis Exports Coartind and Pricing with Practical Guide to in Co-Terms, 1<sup>st</sup> Edition, Jain Book, 6<sup>th</sup> Edition, 2010.
3. M I Mahaian, “Impart Do It Yourself”, Jain Book, 7<sup>th</sup> Edition, 2007.

**REFERENCE BOOKS:**

1. John Wiley, “Global Operations &Logistics:Text& Cases-Dornier”, Pearson Education, 2nd Edition 2013.
2. David Simchi-Levi, “Designing & Managing Supply Chain-Concepts, Strategies”, Tata-McGraw- Hill, 8th Edition, 2000.

**COURSE OBJECTIVE:**

- To provide foundational knowledge associated with the green supply chain.
- To teach the implication of today's most pressing environmental issues
- To describe how the various green supply chain practices can actually save money, increases efficiency and reduce delivery time.

**COURSE OUTCOMES:**

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

- CO – 1 : Explain the fundamental concepts of Green Supply Chain.
- CO – 2 : Understand the Closed-loop Supply Chain.
- CO – 3 : Explain the fundamental concepts of Eco-Design.
- CO – 4 : Understand the various tools of Product Eco-Design.
- CO – 5 : Explain the Green Procurement and Purchasing
- CO – 6 : Identify the Green Supplier Development.
- CO – 7 : Illustrate the 4Re's.
- CO – 8 : Explain the Lean Manufacturing for Green Manufacturing.
- CO – 9 : Illustrate the Closing the Loop: Reverse Logistics.
- CO – 10 : Explain the applications of Green Logistics and Transportation

**UNIT I INTRODUCTION 9**

Introduction – Traditional Supply Chain and Green Supply Chain – Environmental Concern and Supply Chain – Closed-loop Supply Chain – Corporate Environmental Management – Green Supply Chain (GSCM): Definition, Basic Concepts – GSCM Practices

**UNIT II ECO-DESIGN 9**

Design for the Environment (DFE) or Eco-Design – Eco-Design and Supplier Relationships – Definitions of Eco-Design – Tools of Product Eco-Design – Involving suppliers in product eco-design: Drivers, Challenges and Successful factors

**UNIT III GREEN PURCHASING 9**

Green Procurement and Purchasing – Definitions of green purchasing – Drivers of green purchasing – Green purchasing strategies – Green purchasing performance measurement – Green Supplier Development and Collaboration.

**UNIT IV GREEN MANUFACTURING 9**

Green Manufacturing or Production: Evolution, Definitions – 4Re’s: recycling, remanufacturing, reuse and reduction – Closed-loop Manufacturing – ISO 14000 systems – Life Cycle Analysis (LCA) – Lean Manufacturing for Green Manufacturing or Production.

**UNIT V GREEN LOGISTICS AND TRANSPORTATION 9**

Green Logistics and Transportation – Definitions of Green Logistics – Critical drivers of Green Logistics – Green transportation and logistics practices – Environmental impacts of transportation and logistics – Closing the Loop: Reverse Logistics

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. Joseph Sarkis, Yijie Dou. Green Supply Chain Management: A Concise Introduction, Routledge, 2017.
2. Charisios Achillas, Dionysis D. Bochtis, Dimitrios Aidonis, Dimitris Folinias. Green Supply Chain Management, Routledge, 2018.

**REFERENCE BOOKS:**

1. Hsiao-Fan Wang, Surendra M. Gupta. Green Supply Chain Management: Product Life Cycle Approach, McGraw Hill publishing, 2011
2. Stuart Emmett, Vivek Sood. Green Supply Chains: An Action Manifesto by Stuart Emmett, Wiley publications, 2010

**COURSE OBJECTIVE:**

- To provide foundational knowledge associated with the supply chain analytics
- To describe the various tools and techniques for implementation of analytics based on the supply chain drivers such as location, logistics and inventory
- To describe the various techniques for analytics based on the Multi Attribute Decision Making (MADM) and risk
- To provide the applications of analytics in supply chain

**COURSE OUTCOMES:**

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

- CO – 1 : Explain the fundamental concepts of Optimization.
- CO – 2 : Understand on the Operations Research Techniques for Analytics.
- CO – 3 : Understand on the implementation of analytics in location and layout.
- CO – 4 : Analyze the inventory using aggregate production model.
- CO – 5 : Identify the different quality models.
- CO – 6 : Illustrate the quality problems for analytics.
- CO – 7 : Explain the different dimensions using Analytic Hierarchy Process.
- CO – 8 : Explain the different dimensions for Aggregate Production Planning (APP)
- CO – 9 : Identify the type of analytics for Simulation in supply chain.
- CO – 10 : Design the type of analytics for Simulation in supply chain.

**UNIT I INTRODUCTION 9**

Introduction – Overview on Supply Chain, Analytics and Supply Chain Analytics – Dashboards with relevant KPIs for Supply Chain – Optimization – Classification of optimization problems – Optimization for Analytics – Operations Research Techniques for Analytics

**UNIT II LOCATION AND LAYOUT 9**

Plant/Warehousing Decisions – Location Methods – Location Models – Network Models – Layout Methods – Line Balancing: KPIs (Cycle time, Idle time) – Inventory Management

**UNIT III TOTAL QUALITY MANAGEMENT 9**

Introduction – Statistical Quality Control (SQC) – Statistical Process Control (SPC) – Pareto Analysis – Histogram – Scatter Diagram – Control Charts – Process Capability Analysis: KPIs ( $C_p$  and  $C_{pk}$ )

**UNIT IV                      PLANNING & MULTI ATTRIBUTE DECISION MAKING                      9**

Capacity Planning – Measurement of Capacity: KPIs (Efficiency and Utilization) – Aggregate Production Planning (APP): Model, Techniques – Multi Attribute Decision Making (MADM) – Analytic Hierarchy Process

**UNIT V                      SIMULATION & DOE                      9**

Introduction to simulation – Type: Discrete and Continuous simulation – Simulation models – Steps in Simulation study – Simulation for Analytics – Experimental Designs (Taguchi, RSD, Mixture Design)

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. James R. Evans., Business Analytics – Methods, Models and Decisions, Pearson Publications, 1st Edition, 2012.
2. G.V.Shenoy,U.K.Srivastava,S.C.Sharma, Operations Research for Management, New Age International,Revised 2nd Ed, 2005.

**REFERENCE BOOKS:**

1. Gerad Feigin, Supply Chain planning and analytics – The right product in the right place at the right time, Business Expert Press, 2011
2. Peter Bolstorff, Robert G. Rosenbaum, Supply Chain Excellence: A Handbook for Dramatic Improvement Using the SCOR Model, AMACOM Div American Mgmt Assn, 2007
3. Robert Penn Burrows, Lora Cecere, Gregory P. Hackett, The Market-Driven Supply Chain: A Revolutionary Model for Sales and Operations Planning in the New On-Demand Economy, AMACOM Div American Mgmt Assn, 2011

**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:**

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

- CO – 1 : Survey and analyse cooperation between different parts of an organisation
- CO – 2 : Explain the impact that the type of demand for goods and services
- CO – 3 : Explain the inventory management models that help plan the inventory orders
- CO – 4 : Evaluate the efficiency of Vendor Managed Inventory.
- CO – 5 : Describe operational procurement processes and be able to explain procurement
- 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****9**

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****9**

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                    9**

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                    9**

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                    9**

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: 45 HOURS**

**TEXT BOOKS:**

1. S Jaya Krishna, Business transformation outsourcing: An Introduction Paperback, ICFAI press 2017
2. Dominika Spsychalska, Vendor Managed Inventory: Exploring objectives, benefits and shortcomings of the business concept, Lap Lambert Academic Publishing, 2010

**REFERENCE BOOKS:**

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, 2<sup>nd</sup> edition 2011.



**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.

**UNIT I TRANSPORTATION 9**

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 9**

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 9**

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 9**

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 9**

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: 45 HOURS**

**TEXT BOOKS:**

1. Ewan Roy, what is global supply chain management? by Trade Ready, ,2017
2. Altekar, supply chain management,and concepts PHI 2013.

**REFERENCE BOOKS:**

1. R.B. Handfield and E.L. Nochols, Jr. Introduction Supply Chain Management. Prentice Hall, 2<sup>nd</sup> edition (November 30, 2014)
2. Sunil Chopra and Peter Meindel. Supply Chain Management: Strategy, Planning, and Operation, Prentice Hall of India, 6<sup>th</sup> Edition 2013.

**COURSE OBJECTIVE:**

- To explain the strategic role of sourcing management in creating and enhancing a firm's competitive advantages
- To understand the sourcing activities, supplier management
- To learn about the global sourcing management.
- To learn about the latest trends in sourcing.

**COURSE OUTCOMES:**

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

- CO – 1 : Explain about the fundamental Sourcing concepts.
- CO – 2 : Evaluate the selection of supplier.
- CO – 3 : Explain the Global Sourcing.
- CO – 4 : Explain the various Performance Measurement and Evaluation.
- CO – 5 : Explain the Sourcing in Supply Chain.
- CO – 6 : Explain the Components of Sourcing.
- CO – 7 : Explain the Analytical Tools in Sourcing.
- CO – 8 : Explain the Pricing Analyses.
- CO – 9 : Explain the Sourcing Risk.
- CO – 10 : Explain the new trends.

<b>UNIT I</b>	<b>INTRODUCTION</b>	<b>9</b>
Sourcing – Sourcing management: Concept, Functions, Application – Supplier Evaluation and Selection (Concepts): Supplier Rating – Rating criteria – Factors		
<b>UNIT II</b>	<b>GLOBAL SOURCING</b>	<b>9</b>
Introduction to Global Sourcing – Trends in Global Sourcing – Global Sourcing – Negotiation – Performance Measurement and Evaluation (Concepts and Metalcraft Case)		
<b>UNIT III</b>	<b>SUPPLY CHAIN</b>	<b>9</b>
Supply Chain: The Role of Sourcing – Components – Key Process – Outsource: Various Mechanism – Third-party logistics (3PL): Service		
<b>UNIT IV</b>	<b>ANALYTICAL TOOLS</b>	<b>9</b>

Analytical Tools in Sourcing (Total Cost of Ownership (Wire Harness case), Pricing Analyses (Plastic Shield case)) – Analytical Tools in Sourcing (Foreign Exchange Currency Management, Learning Curve, Quantity Discount Models) – Integrative Pacific Systems Case (Supplier Scorecard, Sourcing Risk, Supplier Financial Analysis)

**UNIT V RISKS & TRENDS**

**9**

Sourcing Risk Management (Concepts) – Electronic Sourcing – Sustainability and Sourcing (Green Sourcing; Walmart-China Case)

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. Sunil Chopra and Peter Meindi, Supply Chain Management – Strategy Planning and Operation, Pearson Education, Third Indian Reprint, 2004.
2. Monczka et al., Purchasing and Supply Chain Management, Thomson Learning, Second edition, Second Reprint, 2002.

**REFERENCE BOOKS:**

1. Lee J. Krajewski and Larry P. Ritzman, 2007, Operations Management strategy and analysis, 9th Edition, Pearson Education / Prentice Hall of India, 2007.
2. Altekar Rahul V, Supply Chain Management – Concept and cases, Prentice Hall India, 2005.
3. Olivier Bruel, Strategic Sourcing Management: Structural and Operational Decision-making Kogan Page; 1 edition, 2016.

## **ELECTIVE COURSES – OPERATIONS**

**18EMBL49**

**LEAN SIX SIGMA**

**3 0 0 3**

**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 lean 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                    9**

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                    9**

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                    9**



**COURSE OBJECTIVE:**

- To explain the Project Management based on the Project Management Body of Knowledge (PMBOK®)
- To explain the tools and techniques for identification, planning and analysis of Project.

**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 cost.
- CO – 8 : Evaluate the cost control using Earned Value Analysis (EVA).
- CO – 9 : Identify the basic tools of quality control.
- CO – 10 : Evaluate the quality using Pareto Analysis.

**UNIT I INTRODUCTION 9**

Project Vs. Operations – Project: Definition – Characteristics of Projects – Project Management Body of Knowledge (PMBOK®) – Project Life Cycle – Project Management Process or Process Groups – Project Knowledge Areas – Mapping of the Project Management Processes to the Project Management Process Groups and the Knowledge Areas – Project Management Software.

**UNIT II INTEGRATION & SCOPE MANAGEMENT 9**

Project Integration Management – Process of Project Integration Management – Project Initiation: Project Selection, Project charter and Project Scope Statement; Project Scope Management – Process of Project Scope Management – Project Planning: Scope Planning, Work Breakdown Structure (WBS)

**UNIT III TIME MANAGEMENT 9**





**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:**

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

- CO – 1 : Evaluate Dynamic programming.
- CO – 2 : Analyze the applications of Dynamic programming.
- CO – 3 : Evaluate Flow shop in Two Machines.
- CO – 4 : Evaluate Job shop in Two Machines.
- CO – 5 : Analyze the applications of Project scheduling by PERT
- CO – 6 : Analyze the applications of Project scheduling by CPM.
- CO – 7 : Evaluate the Queuing System.
- CO – 8 : Explain the Simulation models.
- CO – 9 : Explain the Branch and bound method.
- CO – 10 : Explain the Vehicle Routing Problems.

**UNIT I DYNAMIC PROGRAMMING 9**

Dynamic programming – Type – Forward and Backward Recursion – Application: Shortest-Route Problem, Knapsack Model, Work-Force size problem

**UNIT II SCHEDULING SYSTEMS 9**

Flow shop: Johnson 's Method – Two Machines, Three Machines, More than three Machines  
Graphical Method – Only Two Jobs – Job shop

**UNIT III PROJECT SCHEDULING 9**

PERT & CPM – Project scheduling by PERT/CPM – Cost considerations in PERT/CPM

**UNIT IV QUEUING & SIMULATION 9**

Queuing System – Four elements – Kendall's Notation – Queuing models – Birth and Death Model  
– Simulation – Type: Discrete and Continuous simulation – Simulation models

**UNIT V ADVANCED 9**

Branch and bound method – Vehicle Routing Problems – Quadratic Programming – Staff transfer problem – Two-stage supply chain distribution problem

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. Hamdy A. Taha, Operation Research, Pearson Prentice Hall, 2003.
2. Singh & Kumar, Operation Research, UDH Publisher, 2013.

**REFERENCE BOOKS:**

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

**COURSE OBJECTIVE:**

- To explain the Quality concept, principles and its various tools.
- To explain the statistical process control for the implementation of quality management.
- 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 quality management.  
 CO – 3 : Record knowledge of the standards of ISO.  
 CO – 4 : Explain the ISO system based on the implementation.  
 CO – 5 : Explain the implementation of SPC tools.  
 CO – 6 : Calculate the Process Capability.  
 CO – 7 : Record knowledge on the various techniques of quality management.  
 CO – 8 : Explain the implementation of PDCA cycle based on the problem solving method.  
 CO – 9 : Explain the Six Sigma methodologies based on the implementation and tools.  
 CO – 10 : Explain the implementation of SPC tools using Six Sigma methodologies.

**UNIT I INTRODUCTION 9**

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

**UNIT II QUALITY MANAGEMENT SYSTEMS 9**

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

**UNIT III STATISTICAL PROCESS CONTROL 9**

Introduction – Pareto 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 IV TOOLS AND TECHNIQUES 9**

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

**UNIT V SIX SIGMA 9**

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

**TOTAL: 45 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.

**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.x

**COURSE OUTCOMES:**

At the end of the course, 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 and Choice of technology

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 9**

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 9**

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 9**

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

**UNIT IV TPM 9**

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

**UNIT V                    FMS AND GT**

**9**

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

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. Larry Rubrich, Implementing World Class Manufacturing - Third Edition: The Complete Guide Including Policy Deployment and Developing a Lean Culture. Perfect Paperback – November 16, 2015.
2. Richard J. Schonberger, World Class Manufacturing, Free Press Publication, 2008.

**REFERENCE BOOKS:**

1. Richard J. Schonberger, World Class Manufacturing: The Next Decade: Building Power, Strength, and Value, Free Press Publication, 2013.
2. R.P.Mohanty & S.G.Deshmukh, Advanced operations management, Pearson education (Singapore) P.Ltd

**COURSE OBJECTIVE:**

- To understand the Behavioural concepts in Operations Management
- To learn about the Behavioural concepts in production and service context.

**COURSE OUTCOMES:**

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

- CO – 1 : Explain about the fundamental production in Behavioural concepts.
- CO – 2 : Explain the Behavioural Operations
- CO – 3 : Explain the Process Constraints and Variability
- CO – 4 : Explain the Process and Perception.
- CO – 5 : Explain the Group Behavior.
- CO – 6 : Explain the Designed to Game.
- CO – 7 : Explain the implementation of Supply Chain.
- CO – 8 : Explain the various risk of Supply Chain.
- CO – 9 : Evaluate the Dynamic Pricing.
- CO – 10 : Evaluate the Impulsiveness and Emotions.

**UNIT I INTRODUCTION 9**

Behavioural Operations Management – Definition – The study of Behavioural Operations – History and the Contemporary Knowledge Base – Virtuous Cycles of Experimental Learning

**UNIT II PRODUCTION AND SERVICE CONTEXTS – I 9**

Synch and Swim: Managing and Mismanaging Process Constraints and Variability – Process and Perception: Kristen's Cookie Company from a Behavioral Point of View

**UNIT III PRODUCTION AND SERVICE CONTEXTS – II 9**

The Wait or Buy Game: How to Game the System That's Designed to Game You Back – Sharing the Load: Group Behavior and Insights into Simulating Real-World Dynamics

**UNIT IV SUPPLY CHAINS 9**

Sharing the Risk: Understanding Risk – Sharing Contracts from the Supplier's Perspective – Supply Chain Negotiator: A Game of Gains, Losses, and Equity

**UNIT V INTEGRATIVE/ENABLING TECHNOLOGY 9**

Dynamic Pricing in Revenue Management – Intertemporal choices in Project based organisations – Impulsiveness and Emotions – Behaviour Assessment Test on Conflict Management – Kicking the mean Habit – A chain of hands

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. Elliot Bendoly, Wout van Wezel, and Daniel G. Bachrach, The Handbook of Behavioral Operations Management, Oxford University Press, 2015.

**REFERENCE BOOKS:**

1. Christoph H. Loch, Yaozhong Wu, Behavioral Operations Management, Now Publishers Inc, 2007.



**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:**

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

- CO – 1 : Describe the types of Manufacturing system.
- CO – 2 : Identify the Various methodologies
- CO – 3 : Describe the Group Technology (GT).
- CO – 4 : Explain the layout based on cellular manufacturing.
- CO – 5 : Explain the principle and wastages of JIT.
- CO – 6 : Explain the Kanban system.
- CO – 7 : Explain the Theory of Constraints.
- CO – 8 : Explain the various principles of Synchronous Manufacturing.
- CO – 9 : Describe the Flexible Manufacturing System (FMS).
- CO – 10 : Describe the Flexibility.

**UNIT I INTRODUCTION 9**

Management of Manufacturing Systems: An Overview – Manufacturing Systems: Type – Challenges – Evolution of Manufacturing Systems – Nine laws in Manufacturing – Various methodologies

**UNIT II CELLULAR MANUFACTURING SYSTEMS 9**

Principle – Group Technology (GT) – Cellular Manufacturing Systems – Layout – Cell Design: formation, operator allocation, sequencing and scheduling – Part Classification and Coding – Production flow analysis

**UNIT III JUST-IN-TIME 9**

Evolution of Just-In-Time – Principle – Seven wastes – Just-In-Time (JIT) – Kanban or Pull System – CONWIP – Tools and Techniques

**UNIT IV SYNCHRONOUS MANUFACTURING 9**

Synchronous Manufacturing or Theory of Constraints – Principle – Definition of Goal by Goldratt – Role of a constraint – Types of resources: bottlenecks and capacity constrained resource – Drum Buffer Rope System

**UNIT V                      FLEXIBLE MANUFACTURING SYSTEMS (FMS)                      9**

Concept of Flexible Manufacturing System (MS) – Flexibility – Types: Single machine cell, Flexible manufacturing cell, Flexible manufacturing system – Components – Applications – Benefits – Implementation issues

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. Mikell P. Groover, Automation, Production Systems and Computer-Integrated Manufacturing, Pearson Education; Fourth edition, 2016.
2. Richard J. Schonberger, World Class Manufacturing, Free Press Publication, 2008.
3. Feld, W. M., Lean Manufacturing Tools, Techniques and How Use Them, St. Lucie Press, Florida, 2000.

**REFERENCE BOOKS:**

1. Richard J. Schonberger, World Class Manufacturing: The Next Decade: Building Power, Strength, and Value, Free Press Publication, 2013.
2. R.P.Mohanty & S.G.Deshmukh, Advanced operations management, Pearson education (Singapore) P.Ltd

**COURSE OBJECTIVE:**

- To provide foundational knowledge associated with the operations strategy
- To describe the various Performance Objectives for implementation of operations strategy
- To describe the decision areas for strategy

**COURSE OUTCOMES:**

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

- CO – 1 : Explain the fundamental concepts of strategy.
- CO – 2 : Understand the process of operations strategy.
- CO – 3 : Explain the fundamental concepts of Performance Objectives.
- CO – 4 : Understand the Product/Service Life Cycle on Performance Objectives.
- CO – 5 : Explain how the Total Quality Management (TQM) fit into Operations Strategy.
- CO – 6 : Explain how the lean manufacturing fit into Operations Strategy.
- CO – 7 : Explain the decision areas of Capacity Strategy.
- CO – 8 : Explain the decision areas of Purchasing and Supply Strategy.
- CO – 9 : Explain the decision areas of Process Technology.
- CO – 10 : Explain the decision areas of Improvement Strategy.

**UNIT I INTRODUCTION 9**

Introduction – Strategy: Definition, Levels – Operations and Strategy – Operations Management Vs. Operations Strategy – Four perspectives on Operations Strategy – Decision areas: Structural and Infrastructural – The Process of Operations Strategy

**UNIT II PERFORMANCE OBJECTIVES 9**

Introduction – Quality: Hard, Soft – Speed: Time – Dependability: Time – Flexibility: Type – Internal and external benefits – The Operations Strategy Matrix – Performance Objectives and Competitive Factors – Product/Service Life Cycle on Performance Objectives

**UNIT III NEW APPROACHES 9**

Total Quality Management (TQM): Fit into Operations Strategy – Lean Manufacturing: Fit into Operations Strategy – Business Process Reengineering (BPR): Fit into Operations Strategy – Six Sigma: Fit into Operations Strategy.

**UNIT IV DECISION AREAS – I 9**



**COURSE OBJECTIVE:**

- To provide foundational knowledge associated with the services operations management
- To describe the various elements of services operations management
- To describe the various decision areas such as design quality, demand and capacity for services

**COURSE OUTCOMES:**

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

- CO – 1 : Explain the fundamental concepts of services operations management.
- CO – 2 : Understand the Classification of services.
- CO – 3 : Explain the Design elements of services.
- CO – 4 : Understand the Service Quality Life Cycle.
- CO – 5 : Explain how the Total Quality Management (TQM) fit into service management.
- CO – 6 : Understand the Service Quality.
- CO – 7 : Explain the Process Analysis of Service Facility.
- CO – 8 : Explain the Techniques of Facility Location.
- CO – 9 : Explain the Techniques of Forecasting Demand.
- CO – 10 : Explain the Service Inventory Management.

**UNIT I INTRODUCTION 9**

Introduction – Goods Vs. Services – Definition of Services – Nature and characteristics of services – Classification of services – Services in Manufacturing Sector – The service-process matrix – Service Strategy – Competitive Service Strategies – Strategic Service Vision

**UNIT II SERVICE DESIGN 9**

Introduction – New service design and development – Design elements – Service system design and delivery process: Classification of Service Processes, Process Structure – Technology in Services – Product/Service Life Cycle on Performance Objectives

**UNIT III SERVICE QUALITY 9**

Defining Service Quality – Measuring Service Quality: SERVQUAL – Quality Service by Design – Service process control – Quality philosophy and performance excellence – Total Quality Management (TQM) tools: Seven Quality Control (QC) tools

**UNIT IV SERVICE FACILITY 9**

Service Facility Design – Service facility layout: Types, Process Analysis – Facility Location:  
Decision, Classification, Techniques

**UNIT V                    MANAGING DEMAND AND CAPACITY**

**9**

Forecasting Demand – Forecasting methods: Subjective or qualitative, Quantitative – Service  
Capacity: Factors, Elements Strategies – Service Inventory Management

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. B. Fitzsimmons, James A., and Mona J. Fitzsimmons, Service Management: Operations, Strategy, and Information Technology, 6th Ed., Irwin/McGraw-Hill, 2008.

**REFERENCE BOOKS:**

1. C. Haksever, Render B., Russel S. R. and Murdick R. G., Service Management and Operations, 2nd Ed., Prentice Hall, 2007.
2. Robert Johnston, Graham Clark. Service Operations Management: Improving Service Delivery, Prentice Hall, 2012.

## **ELECTIVE COURSES – ENTREPRENEURSHIP**

**18EMBL58**

**ENVIRONMENTAL STUDIES**

**3 0 0 3**

### **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 : Analyze the renewable and non-renewable sources.
- CO – 3 : Evaluate strategies, technologies, and methods for sustainable of environmental systems.
- CO – 4 : Describe and analyze human impacts on the environment and conservation.
- CO – 5 : Demonstrate an awareness, knowledge, and appreciation of ecological processes.
- CO – 6 : Recall core concepts and methods from ecological and physical sciences.
- 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 : Analyze the role of Information Technology in Environment.

### **UNIT I MULTIDISCIPLINARY NATURE 9**

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 9**

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 9**

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 9**

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 9**

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: 45 HOURS**

**TEXT BOOKS:**

1. Mahua Basu and Xavier Savarimuthu SJ, Fundamentals of Environmental Studies, 8 Nov 2017
2. Gowri Suresh, Tata McGraw- A Textbook of Environmental Studies-Hill Education,2012

**REFERENCE BOOKS:**

1. Joni Adamson , William A. Gleason , David N. Pellow, Keywords for Environmental Studies Paperback – February 26, 2016.
2. Gowri Suresh, Environmental Studies and Ethics-K. International, 2010.
3. Chary, Environmental Studies, Macmillan, 2008.



**COURSE OBJECTIVE:**

- To create a mindset of value system among the students.
- To understand the concept of transformation from existing state to higher state.
- To understand the enterprise skills such as experience intuition and wisdom.
- To identify the strategies to tackle the problem when it comes to directing human resources

**COURSE OUTCOMES:**

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

- CO – 1 : Discuss about the need for holistic and ethical approach to management.
- CO – 2 : Analyze the ‘Qualitative sincerity’ which is considered as the guiding motto.
- CO – 3 : Analyze the moral obligations of individuals and groups in organizations.
- CO – 4 : Understand the individual development as the most relevant work-philosophy.
- CO – 5 : Analyze the teams and organizations, evaluating ethical approach.
- CO – 6 : Compare and contrast power and influence of leadership.
- CO – 7 : Assess the knowledge about the organization structure and its types.
- CO – 8 : Describe about the line and staff authority.
- CO – 9 : Demonstrate the dynamics of organizational change.
- CO – 10 : Identify the major issues in business ethics and corporate social responsibility.

**UNIT I INTRODUCTION 9**

Business Ethics: Introduction, Business Ethics and Management, Business Ethics and Moral Obligations; Corporate Social Responsibility; Corporate Governance; Report of the Kumar Mangalam Birla Committee on Corporate Governance; Role of Media in Ensuring Corporate Governance; Environmental Concerns and Corporations.

**UNIT II ETHOS & VALUES IN MODERN MANAGEMENT 9**

Ethical Issues related with Advertisement and Marketing; Secular versus Spiritual Values in Management, Work Ethics, Stress at Workplace

**UNIT III PROCESS OF ETHICAL DECISION-MAKING 9**

Approaches: Consequentialist theories, Deontological theories, and Virtue ethics approach ñ Process of ethical decision-making in business ñ Individual differences and ethical judgement - Cognitive barriers to a good ethical judgement and Whistle Blowing.

**UNIT IV ETHICS MANAGEMENT 9**

Role of organizational culture in ethics ñ Structure of ethics management: Ethics Committee, Ethics Officers, and the CEO ñ Communicating ethics: Communication Principles, Channels, Training programmes, and evaluation ñ Ethical Audit ñ Corporate Governance and ethical responsibility ñ Transparency International and other ethical bodies

**UNIT V HOLISTIC MANAGEMENT SYSTEM 9**

A Holistic Management System; Management in Indian Perspective; Basic principles of Indian Ethos for Management Mental entity, enriching sentiment, perception, mind and will power by life balancing techniques, Social entity, building quality communication with others by the techniques of professional and working development and social integrity.

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. S.A. Sherlekar, Ethics in Management, Himalaya Publishing House, 2009.
2. William B. Werther and David B. Chandler, Strategic corporate social responsibility, Sage Publications Inc., 2011
3. Robert A.G. Monks and Nell Minnow, Corporate governance, John Wiley and Sons, 2011

**REFERENCE BOOKS:**

1. W.H. Shaw, Business Ethics, Cen gage Learning, 2007.
2. Beeslory, Michel and Evens, Corporate Social Responsibility, Taylor and Francis, 1978.
3. Philip Kotler and Nancy Lee, Corporate social responsibility: doing the most good for company and your cause, Wiley, 2005.
4. Subhabrata Bobby Banerjee, Corporate social responsibility: the good, the bad and the ugly, Edward Elgar Publishing, 2007.

**COURSE OBJECTIVE:**

- To explain the conceptual framework for business policy and strategic, 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.
- CO – 2 : Recognize the different stages of industry evolution and recommend strategies.
- CO – 3 : Appraise the resources and capabilities of the firm in terms of their ability.
- CO – 4 : Demonstrate explaining of the concept of competitive advantage and its sources.
- CO – 5 : Distinguish the two primary types of competitive advantage.
- CO – 6 : Analyze dynamics in competitive rivalry, including competitive action.
- CO – 7 : Formulate strategies for exploiting international business opportunities.
- 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.
- CO – 10 : Recognize strategic decisions that present ethical challenges.

**UNIT I STRATEGY AND POLICY 9**

Introduction, Fundamentals of Strategy, Conceptual Evolution of Strategy, Scope and Importance of Strategies, Purpose of Business, Objectives and goals - Difference between Goals and Objectives of Business – Strategic Intent through Vision and Mission, Policy

Statements –Introduction to Business policy – Importance of Business policy.

**UNIT II COMPETITIVE ADVANTAGE 9**

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 - Resources and Capabilities durability of competitive Advantage - Generic Building Blocks of Competitive Advantage- Distinctive - Avoiding failures and sustaining competitive advantage

**UNIT III STRATEGIES 9**

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 9**

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 BUSINESS POLICY AND DECISION MAKING 9**

Factors Considered Before Framing Business Policies -Steps Involved in Framing Business Policies- Policy Cycle and its Stages- Implementation of Policy Change - Role of Policies in Strategic Management.

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. G.U. Satya Sekhar, Business policy and Strategic Management, I K Publishing House, 2009.
2. Tony Morden, Principles of strategic management, Ash gate publishing, 2007.
3. Kim warren, Strategic management dynamics, John wiley & sons, 2008.
4. Senthilkumar S./ Durai, Marutha M./ Sharmila A. & Poornima J., Business Policy and Strategic Management, 2014.

**REFERENCE BOOKS:**

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 recognize the impact of Information and Communication technologies, especially of the Internet in business operations in the role of Management with the context of e-Business and e-Commerce.

**COURSE OUTCOMES:**

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

- CO – 1 : Recognize the impact of Information and Communication technologies
- 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 in the adoption of e-Business.
- CO – 5 : Examine applications of e-Commerce in relation to the applied strategic.
- CO – 6 : Employ tools and services of the internet in the development of a virtual e-commerce.
- CO – 7 : Describe the various characteristics of electronic payment systems.
- CO – 8 : Explain the security protocols and the issues in internet security.
- CO – 9 : Discuss various legal and ethical issues specific to E-Business.
- CO – 10 : Explain the privacy issues specific to e-business.

**UNIT I INTRODUCTION TO E-BUSINESS 9**

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 TECHNOLOGY INFRASTRUCTURE 9**

Internet and World Wide Web, internet protocols - FTP, intranet and extranet, information publishing technology- basics of web server hardware and software.

**UNIT III BUSINESS APPLICATIONS 9**

Consumer oriented e-business – e-tailing and models - Marketing on web – advertising, e-mail marketing, affiliated programs - e-CRM; online services, Business oriented e-business, e-governance, EDI on the internet.

**UNIT IV E-BUSINESS PAYMENTS AND SECURITY 9**



# **SEMESTER IV**

**18RMBL41****PROJECT WORK****PROJECT OUTCOMES:**

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

- CO – 1 : Relate in-depth understanding of the business/management environment
- CO – 2 : Create and develop deep understanding of the interaction.
- CO – 3 : Analyze and solve problems on an executive level and demonstrating critical.
- 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.
- CO – 6 : Manage business problem in new and unfamiliar circumstances.
- 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.