

VELS



INSTITUTE OF SCIENCE, TECHNOLOGY & ADVANCED STUDIES (VISTAS)
(Deemed to be University Estd. u/s 3 of the UGC Act, 1956)
PALLAVARAM - CHENNAI
ACCREDITED BY NAAC WITH 'A' GRADE
Marching Beyond 30 Years Successfully

MBA SHIPPING AND LOGISTICS MANAGEMENT

Curriculum and Syllabus
Regulations 2023

(Based on Choice Based Credit System (CBCS))

Effective from the Academic year
2023-2024

Department of MBA

School of Management Studies & Commerce

Vision and Mission of the Department

Vision

To be a Centre of Excellence in Management Studies and Commerce, imparting and developing Managerial leadership and entrepreneurial skills to students and provide managers for the global market.

Mission

1. To Provide an accessible and inclusive learning environment for diverse group of students and other stakeholders to learn by synergizing education, research, innovation and outreach efforts.
2. To foster self-discipline, strong values, ethics and sense of duty among the students to make them good citizens, leaders, professionals and entrepreneurs.
3. To create the future business leaders through innovative and analytical ability, decision making capability and integration of technology in education.
4. To provide exposure to global business standards by design thinking, rational judgement and competencies necessary to manage Global and multinational ventures.

Program Educational Objectives (PEOs)

PEO1: To provide exceptional quality education that prepares the students to meet global standards and competitive environment.

PEO2: To inculcate team spirit and develop leadership capabilities among students, empowering them to emerge as business leaders and contribute to organizational development.

PEO3: To impart ethical and moral values so as to inculcate the significance of Environmental, Social and Governance practices among students to create better citizens and society.

PEO4: To equip the students with technology proficiency, nurture entrepreneurial skills to think strategically by encouraging them to become professionals.

PEO5: To motivate students to participate in community development initiatives and participate Industry research projects

Program Outcomes (POs)

PO 1: Apply knowledge of management theories and practices to solve business problems.

PO 2: Foster Analytical and critical thinking abilities for data-based decision making.

PO 3: Ability to develop Value based Leadership ability.

PO 4: Ability to understand, analyze and communicate global, economic, legal, and ethical aspects of Business

PO 5: Ability to lead themselves and others in the achievement of organizational goals, contributing effectively to a team environment.

PO 6: Create, select and apply appropriate modern tools & techniques for analyzing, interpreting and solving business complexities.

PO 7: Develop an aptitude for creativity, innovation and entrepreneurship.

PO 8: Adapt life-long learning and professional development to enrich knowledge and competencies

Program Specific Outcomes (PSOs)

PSO 1: Apply critical thinking, modeling, decision making, and problem-solving skills in a variety of contexts related to the utilization of appropriate technology to support the procurement implementation of logistics strategies and manage logistics resources to improve the supply chain.

PSO 2: Designed to develop the students with the objective of equipping them to cope with the emerging trends and challenges in the logistics sector

PSO 3: Analyze various feasible and appropriate means of logistics so as to facilitate distribution of goods and services for domestic and international markets.

List of Board of Studies (BOS) Members along with their designation/role

S.NO	NAME & ADDRESS	DESIGNATION
1.	**Dr. P. R. Ramakrishnan** Dean School of Management Studies & Commerce VISTAS	Chairperson
2.	**Dr. R. Magesh** Professor and Head Department of Management Studies Anna University, Chennai	External Expert
3.	**Dr. S. Prabhu** Member- Confederation of Indian Industry CII, Chennai	Industry Expert
4.	**Dr. J. Balasubramanian** Head, Business Analytics, Ashok Leyland, Chennai	Industry Expert
5.	**Ms. Anitharaj Johnes George** Senior Talent Acquisition Analyst SPI global, Pondicherry	Alumni
6.	**Dr. S. Preetha** School of Management Studies, VISTAS	Professor
7.	**Dr. S. Vasantha** School of Management Studies, VISTAS	Professor
8.	**Dr. G. Rajini** School of Management Studies, VISTAS	Professor
9.	**Dr. P. G. Thirumagal** School of Management Studies, VISTAS	Associate Professor
10.	**Dr. G. Madhumita** School of Management Studies, VISTAS	Associate Professor
11.	**Dr. S. Sudha** School of Management Studies, VISTAS	Professor

VELS INSTITUTE OF SCIENCE, TECHNOLOGY AND ADVANCED STUDIES (VISTAS), CHENNAI

CHOICE BASED CREDIT SYSTEM (CBCS)

MBA (SHIPPING AND LOGISTICS MANAGEMENT)– REGULATIONS 2023

(Applicable to all the candidates admitted from the academic year 2023-24 onwards)

1. DURATION OF THE PROGRAMME

1.1. Two years (Four semesters)

1.2. Each academic year shall be divided into two semesters. The odd semesters shall consist of the period from July to November of each year and the even semesters from January to May of each year.

1.3. There shall be not less than 90 working days for each semester.

2. ELIGIBILITY FOR ADMISSION

2.1. The details of Eligibility for Admission

Passed Bachelor Degree of minimum 3 years duration.

Obtained at least 50% marks (45% marks in case of candidates belonging to reserved category) in the qualifying examination.

3. MEDIUM OF INSTRUCTION

The medium of instruction for all PG programme is English.

4. CREDIT REQUIRMENTS AND ELIGIBILITY FOR AWARD OF DEGREE

A Candidate shall be eligible for the award of Degree only if he/she has undergone the prescribed course of study in VISTAS for a period of not less than TWO academic years and passed the examinations of all the prescribed courses of FOUR Semesters earning a minimum of 102 credits as per the distribution given in the course structure.

5. COURSE

Each course / subject is to be designed under lectures / tutorials / laboratory or field work / seminar / practical training / Assignments / Term paper or Report writing etc., to meet effective teaching and learning needs.

6. COURSE OF STUDY AND CREDITS

The Course Components and Credit Distribution shall consist of:

The total number of subjects of study shall be 28 out of which 15 shall be compulsory courses and of the remaining 9 will be Electives, Computer Applications for Managers - Practical in the I semester , MOOC and Internship in the Second semester . Project Work in the Final Semester with a Viva-voce altogether.

In the first semester, there are 8 subjects out of which 7 are Core and 1 is Practical

In the second semester, there are 9 subjects out of which 5 are Core, 2 is Elective Theory, MOOC and summer internship.

In the third semester, there are 9 subjects out of which 2 are Core and 7 are Elective Theory

In the fourth Semester, there is 1 Core Theory and 1 Project Work.

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

Project: The students have to undergo 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 Examination by the guide and an External expert. The components of Project Work will be 100 marks for Dissertation and 200 marks for Viva voce examination.

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

For each course, credit is assigned based on the following:

Contact hour per week		CREDITS
1 Lecture hour	-	1 Credit
1 Tutorial hour	-	1 Credit
2 Practical hours	-	1 Credit

(Laboratory / Seminar / Project Work / etc.)

7. REQUIREMENTS FOR PROCEEDING TO SUBSEQUENT SEMESTER

7.1. **Eligibility:** Students shall be eligible to go to subsequent semester only if they earn sufficient attendance as prescribed therefor by the Board of Management from time to time.

7.2. **Attendance:** All Students must earn 75% and above of attendance for appearing for the University Examination. (Theory/Practical)

7.3. **Condonation of shortage of attendance:** If a Student fails to earn the minimum attendance (Percentage stipulated), the HODs shall condone the shortage of attendance on medical grounds up to a maximum limit of 10% (i.e. between 65% and above and less than 75%) after paying the prescribed fee towards the condonation of shortage of attendance. The students with attendance of less than 65 and more than 50% shall be condoned by Vice chancellor on the recommendation of HODs on genuine grounds, will be permitted to appear for the regular examination on payment of the prescribed condonation fee.

7.4. **Detained students for want of attendance:** Students who have earned less than 50% of attendance shall be permitted to proceed to the next semester and to complete the Program of study. Such Students shall have to repeat the semester, which they have missed by rejoining after completion of final semester of the course, by paying the fee for the break of study as prescribed by the University from time to time.

7.5. **Transfer of Students and Credits:** The strength of the credits system is that it permits inter Institutional transfer of students. By providing mobility, it enables individual students to develop their capabilities fully by permitting them to move from one Institution to another in accordance with their aptitude and abilities.

7.5.1. Transfer of Students is permitted from one Institution to another Institution for the same program with same nomenclature, provided, there is a vacancy in the respective program of Study in the Institution where the transfer is requested.

7.5.2. The marks obtained in the courses will be converted into appropriate grades as per the University norms.

7.5.3. The transfer students are not eligible for Ranking, Prizes and Medals.

7.5.4. Students who want to go to foreign Universities upto two semesters or Project Work with the prior approval of the Departmental / University Committee are allowed to transfer of their credits. Marks obtain in the courses will be converted into Grades as per the University norms and the students are eligible to get CGPA and Classification.

8. EXAMINATION AND EVALUATION

8.1. EXAMINATION:

i. There shall be examinations at the end of each semester, for odd semesters in the month of October / November, for even semesters in April / May. A candidate who does not pass the examination in any course(s) shall be permitted to appear in such failed courses in the subsequent examinations to be held in October / November or April / May.

ii. A candidate should get registered for the first semester examination. If registration is not possible owing to shortage of attendance beyond condonation limit / regulations prescribed OR belated joining OR on medical grounds, the candidates are permitted to move to the next semester. Such candidates shall re-do the missed semester after completion of the programme.

iii. The results of all the examinations will be published through University Website. In the case of passed out candidates, their arrear results, will be published through University Website.

8.2 **To Register for all subjects**: Students shall be permitted to proceed from the First Semester up to Final Semester irrespective of their failure in any of the Semester Examination, except for the shortage of attendance programs. For this purpose, Students shall register for all the arrear subjects of earlier semesters along with the current (subsequent) Semester Subjects.

8.3. Marks for Continuous Internal Assessment (CIA) Examinations and End Semester Examinations (ESE)

8.3.1 There shall be no passing minimum for Continuous Internal Assessment (CIA) Examinations.

8.3.2 For End Semester examination, passing minimum shall be 50% (Fifty Percentage) of the maximum marks prescribed for the Course/Practical/Project and Viva-Voce.

8.3.3 In the aggregate (CIA and ESE) the passing minimum shall be of 50%.

8.3.4. He / She shall be declared to have passed the whole examination, if he/she passes in all the courses wherever prescribed in the curriculum by earning 102 CREDITS

9.Question Paper Pattern for End Semester Examination

Duration: 3 Hours Max. Marks: 100

Part A	: 8 out of 10 questions	(8 X 5 = 40)
Part B	: 4out of 6 questions	(4 X 10 = 40)
Part C	:1 Case Study or Problem is Compulsory	(1 X 20= 20)

Total Marks for each subject 100 Marks

University Exam 60 Marks

Internal Assessment 40 Mark

10. SUPPLEMENTARY EXAMINATION: Supplementary Examinations are conducted for the students who appeared in the final semester examinations. Eligible criteria for appearing in the Supplementary Examinations are as follows:

10.1. Eligibility: A Student who is having a maximum of two arrear papers is eligible to appear for the Supplementary Examination.

10.2. Non-eligibility for those completed the program: Students who have completed their Program duration but having arrears are not eligible to appear for Supplementary Examinations.

11. RETOTALLING, REVALUATION AND PHOTOCOPY OF THE ANSWER SCRIPTS:

11.1. Re-totaling: All PG Students who appeared for their Semester Examinations are eligible for applying for re-totaling of their answer scripts.

11.2. Revaluation: All current batch Students who have appeared for their Semester Examinations are eligible for Revaluation of their answer scripts. Passed out candidates are not eligible for Revaluation.

11.3. Photocopy of the answer scripts: Students who have applied for revaluation can download their answer scripts from the University Website after fifteen days from the date of publication of the results.

12.The examination and evaluation for MOOCs will be as per the requirements of the regulatory bodies and will be specified at the beginning of the Semester and notified by the university NPTEL-SWAYAM Coordinator (SPOC).

13. CLASSIFICATION OF SUCCESSFUL STUDENTS

13.1. CORE SUBJECTS, PRACTICAL, ELECTIVES COURSES AND PROJECT:

Successful Students passing the Examinations and securing the marks

a) CGPA 9.00 to 10.00 shall be declared to have passed the examination in **First class with Outstanding**.

b) CGPA 7.50 to 8.99 shall be declared to have passed the examination in **First class with distinction**.

c) CGPA 6.00 to 7.49 shall be declared to have passed the examination in **First Class**.

d) CGPA 5.00 to 5.99 in the aggregate shall be declared to have passed the examination in the **SECOND** Class.

Overall Performance – PG		
CGPA	**GRADE**	**CLASS**
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 - 10.00	O	First Class - Outstanding*

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14.MARKS AND GRADES: The following table shows the marks, grade points, letter grades and classification to indicate the performance of the student:

14.1. Computation of Grade Point Average (GPA) in a Semester, Cumulative Grade Point Average (CGPA) and Classification

GPA for a Semester: = ∑iCiGi ÷ ∑iCi That is, GPA is the sum of the multiplication of grade points by the credits of the courses divided by the sum of the credits of the courses in a semester.

Where, Ci= Credits earned for course i in any semester,

Gi = Grade Points obtained for course i in any semester

n = Semester in which such courses were credited.

CGPA for the entire programme: = ∑n∑iCniGni ÷∑n∑iCni That is, CGPA is the sum of the multiplication of grade points by the credits of the entire programme divided by the sum of the credits of the courses of the entire programme

14.2. Letter Grade and Class CGPA

The students who have passed in the first appearance and within the prescribed semester of the PG Programme (Major and Elective courses only) are eligible.

15. RANKING

- Students who pass all the examinations prescribed for the Program in the FIRST APPEARANCE ITSELF ALONE are eligible for Ranking / Distinction.
- In the case of Students who pass all the examinations prescribed for the Program with a break in the First Appearance are only eligible for Classification.
- Students qualifying during the extended period shall not be eligible for RANKING.

16. MAXIMUM PERIOD FOR COMPLETION OF THE PROGRAMS TO QUALIFY FOR A DEGREE

Grade Conversion Table – PG			
Range of Marks	**Grade Points**	**Letter 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
0 – 49	0	RA	Reappear
		AAA	Absent

16.1. A Student who for whatever reasons is not able to complete the programs within the normal period (N) or the Minimum duration prescribed for the programme, may be allowed two years period beyond the normal period to clear the backlog to be qualified for the degree. (Time Span = N + 2 years for the completion of programme)

16.2. In exceptional cases like major accidents and child birth an extension of one year considered beyond maximum span of time (Time Span= N + 2 + 1 years for the completion of programme).

17. REVISION OF REGULATIONS, CURRICULUM AND SYLLABI

The University may from time-to-time revise, amend or change the Regulations, Curriculum, Syllabus and Scheme of examinations through the Academic Council with the approval of the Board of Management.

S.No	Semester	Total number of Subjects	Core / Elective / Lab / Internship / Project Work	Credit Distribution		Total Credits	Total Credits for the Semester
				Credits	No. of Subjects		
1	I	8	7 Core	4	7	28	**29**
			1 Practical (Computer Applications for Managers - Practical)	1	1	1	
2	II	9	5 Core Theory	4	5	20	**33**
			2 Elective Theory	3	2	6	
			1 Practical (MOOC)	1	1	1	
			1 Internship	6	1	6	
3	III	9	2 Core	3	2	6	**27**
			7 Elective Theory	3	7	21	
4	IV	2	1 Core Theory	3	1	3	**13**
			1 Project	10	1	10	
						Total	**102**

Overall credit distribution / Course Components with credits

MBA (SHIPPING AND LOGISTICS MANAGEMENT) – REGULATIONS 2023

SEMESTER I

Code	Course	Hour / Week			C	Maximum Marks		
		L	T	P		CA	SEE	Total
23CMBL11	Managerial Concepts and Organizational Behaviour	4	0	0	4	40	60	100
23CMBL12	Business Statistics & Quantitative Techniques	4	0	0	4	40	60	100
23CMBL13	Managerial Economics	4	0	0	4	40	60	100
23CMBL14	Accounting And Finance For Logistics And Supply Chain Management	3	1	0	4	40	60	100
23CMBL15	Legal & Business Environment	4	0	0	4	40	60	100
23CMBL16	Soft Skills & Etiquette for Managers	4	0	0	4	40	60	100
23CMBL17	Marketing Management	4	0	0	4	40	60	100
23PMBL11	Computer Applications for Managers - Practical	0	0	2	1	40	60	100
		27	**1**	**2**	**29**			

SEMESTER II

Code	Course	Hour / Week			C	Maximum Marks		
		L	T	P		CA	SEE	Total
23CMBL21	International Logistics	4	0	0	4	40	60	100
23CMBL22	Introduction to Logistics & Supply Chain Management	4	0	0	4	40	60	100
23CMBL23	Maritime Economics & Business	4	0	0	4	40	60	100
23CMBL24	Supply Chain Analytics and Logistics Optimisation	4	0	0	4	40	60	100
23CMBL25	Smart Logistics and e-commerce Fulfillment	4	0	0	4	40	60	100
23EMBL…	Elective I	3	0	0	3	40	60	100
23EMBL…	Elective II	3	0	0	3	40	60	100
23PMBL21	MOOC –Practical	0	0	2	1			
23IMBL21	Internship	0	0	12	6	40	60	100
		26	**0**	**14**	**33**			

SEMESTER III

Code	Course	Hour / Week			C	Maximum Marks		
		L	T	P		CA	SEE	Total
23CMBL31	Business Research Methods and SPSS	3	0	0	3	40	60	100
23CMBL32	Green Logistics and ESG Practices	3	0	0	3			
23EMBL….	Elective III	3	0	0	3	40	60	100
23EMBL….	Elective IV	3	0	0	3	40	60	100
23EMBL….	Elective V	3	0	0	3	40	60	100
23EMBL….	Elective VI	3	0	0	3	40	60	100
23EMBL….	Elective VII	3	0	0	3	40	60	100
23EMBL….	Elective VIII	3	0	0	3	40	60	100
23EMBL….	Elective IX	3	0	0	3	40	60	100
		27	0	0	27			

SEMESTER IV

Code	Course	Hour / Week			C	Maximum Marks		
		L	T	P		CA	SEE	Tota
23CMBL41	Universal Human Value	3	0	0	3	40	60	100
23RMBL41	Project	0	0	20	10	100	200	300
		3	0	20	13			

TOTAL CREDITS: 102

LIST OF COURSES

CORE COURSES

Semester	Code	Course	Hour / Week			Credits
			Lecture	Tutorial	Practical	
I	23CMBL11	Managerial Concepts and Organizational Behaviour	4	0	0	4
I	23CMBL12	Business Statistics & Quantitative Techniques	4	0	0	4
I	23CMBL13	Managerial Economics	4	0	0	4
I	23CMBL14	Accounting And Finance For Logistics And Supply Chain Management	3	1	0	4
I	23CMBL15	Legal & Business Environment	4	0	0	4
I	23CMBL16	Soft Skills & Etiquette for Managers	4	0	0	4
I	23CMBL17	Marketing Management	4	0	0	4
II	23CMBL21	International Logistics	4	0	0	4
II	23CMBL22	Introduction to Logistics & Supply Chain Management	4	0	0	4
II	23CMBL23	Maritime Economics & Business	4	0	0	4
II	23CMBL24	Supply Chain Analytics and Logistics optimisation	4	0	0	4
II	23CMBL25	Smart Logistics and e-commerce Fulfillment	4	0	0	4
III	23CMBL31	Business Research Methods and SPSS	3	0	0	3
III	23CMBL32	Green Logistics and ESG Practices	3	0	0	3
II	23CMBL41	Universal Human Value	3	0	0	3

ELECTIVE COURSES

FUNCTIONAL AREA	CODE	COURSES	Hour / Week			
			Lecture	Tutorial	Practical	Credits
Logistics	23EMBL01	Multimodal Transportation Management	3	0	0	3
	23EMBL02	Logistics Concepts & Planning	3	0	0	3
	23EMBL03	Inland Waterways Management	3	0	0	3
	23EMBL04	Fundamentals of Shipping Management	3	0	0	3
	23EMBL05	Digitalization of Industrial Logistics	3	0	0	3
Shipping & Logistics	23EMBL06	Commercial Geography	3	0	0	3
	23EMBL07	Air Cargo Management	3	0	0	3
	23EMBL08	Liner Trade and Dry Cargo Chartering	3	0	0	3
	23EMBL09	Cold Chain Logistics	3	0	0	3
	23EMBL10	Shipping Law and Marine Insurance	3	0	0	3
	23EMBL11	Customs Laws and procedures	3	0	0	3
	23EMBL12	Container Management	3	0	0	3
	23EMBL13	Inland Transport Management	3	0	0	3
	23EMBL14	Delivery Management	3	0	0	3
	23EMBL15	International Transport Law	3	0	0	3
	23EMBL16	Export-Import Documentation	3	0	0	3
	23EMBL17	Logistics Site Safety Management	3	0	0	3
	23EMBL18	Logistics Services Business Development	3	0	0	3
	23EMBL19	Port and Terminal Management	3	0	0	3
Supply Chain	23EMBL20	Warehousing and Inventory Management	3	0	0	3
	23EMBL21	Global Procurement Management	3	0	0	3
	23EMBL22	Green Supply Chain Management	3	0	0	3
	23EMBL23	Vendor Managed Inventory	3	0	0	3
	23EMBL24	Global Supply chain management	3	0	0	3

	23EMBL25	Sourcing Management	3	0	0	3
Operations	23EMBL26	Lean Six Sigma	3	0	0	3
	23EMBL27	Project Management	3	0	0	3
	23EMBL28	Operations Research Applications	3	0	0	3
	23EMBL29	Total Quality Management	3	0	0	3
	23EMBL30	World Class Manufacturing	3	0	0	3
	23EMBL31	Behavioral Operations Management	3	0	0	3
	23EMBL32	Management of Manufacturing Systems	3	0	0	3
	23EMBL33	Operations Strategy	3	0	0	3
	23EMBL34	Services Operations Management	3	0	0	3
Entrepreneurship Analytics	23EMBL35	Business Policy & Strategy	3	0	0	3
	23EMBL36	E-Business	3	0	0	3
	23EMBL37	Business Analytics for Managers	3	0	0	3
	23EMBL38	HR Analytics	3	0	0	3
	23EMBL39	Marketing And Retail Analytics	3	0	0	3

PRACTICAL COURSES

Semester	Code	Course	Hour / Week			Credits
			Lecture	Tutorial	Practical	
I	23PMBL11	Computer Applications for Managers - Practical	0	0	2	1
II	23PMBL21	MOOC-Practical	0	0	2	1
II	23IMBL21	Internship	0	0	12	6
IV	23RMBL41	Project	0	0	20	10

SEMESTER I

23CMBL11 **MANAGERIAL CONCEPTS AND ORGANIZATIONAL BEHAVIOUR** **4 0 0 4**

COURSE OBJECTIVES:

- Develop a foundational understanding of management concepts and their application in organizational contexts.
- Analyze individual and group behavior within organizations to enhance employee performance and engagement.
- Explore effective leadership styles and strategies for achieving organizational goals and motivating teams.
- Examine the impact of organizational culture and change on employee behavior and organizational effectiveness.
- Develop essential control mechanism as a system for effective management and collaboration in diverse settings.

UNIT I **INTRODUCTION TO MANAGEMENT CONCEPTS** **12**

Management process and Concepts –-Planning –Organizing-Staffing –Directing and Controlling – Levels of Management -Roles and Skills of Managers - Evolution of management theories- Planning –Types and steps of Plans - Strategic management and competitive advantage

UNIT II **ORGANIZING AND DIRECTING** **12**

Organizational Process and Characteristics: Dimensions of Organization structure and Design – Authority, Responsibility, and Accountability – Delegation – Centralization, Decentralization – Line and Staff Relationship-Power and Politics - Decision-making at Certainty ,Uncertainty and Risk – Modern Management Control Mechanism/Techniques

UNIT III **INDIVIDUAL BEHAVIOUR** **12**

Individual Processes in Organizations: Factors affecting Individual Behavior – Learning - Attitudes – Personality and values – Perception - Motivation and Organizational performance-Code of Conduct - Contemporary theories of motivation-Emotional and Social Intelligence

UNIT IV GROUP DYNAMICS AND TEAM MANAGEMENT 12

Group formation and development- Team effectiveness and Collaboration –Power and influence in teams –Group Cohesiveness-High Performance team management - Leadership – Styles- Theories Comparative Managerial Styles And Approaches – Communication and Negotiation- Japanese Management Practices

UNIT V EMERGING ASPECTS OF ORGANIZATIONAL BEHAVIOUR 12

Organizational Culture and climate- Change Agent / Catalyst – Managing Innovation and Change - Organizational development Interventions -Organizational Citizenship Behavior-Ethical Behavior and CSR -Managing Diversity and Inclusion -Managing global and Virtual teams – Contemporary Issues –Gig Workers

TOTAL: 60 HOURS

COURSE OUTCOMES:

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

- CO-1 Understand the core concepts and functions of management and their practical application in real-world organizational settings.
- CO-2 Evaluate individual behavior factors, such as personality, perception, and motivation, and their influence on employee performance and job satisfaction.
- CO-3 Assess different leadership styles and apply appropriate strategies to lead and inspire teams towards organizational success.
- CO-4 Analyze the impact of organizational culture and change on employee behavior, and develop strategies to manage and adapt to organizational change effectively.
- CO-5 Demonstrate effective communication, teamwork, and conflict resolution skills necessary for effective management and collaboration in diverse organizational context.

TEXT BOOKS:

1. Stephen P. Robbins, Timothy A. Judge, Neharika Vohra “Organizational Behavior”, Pearson Education, 18th Edition, 2022

2. Harold Koontz, Heinz Weihrich, Mark V. Cannice, " Essentials Of Management", McGraw Hill, 11th Edition, 2020
3. Robbins, "Management", Pearson India, 14th Edition, 2019
4. Prasad L M, "Principles and Practice of Management", Sultan Chand & Sons-New Delhi, 2019
5. Samuel C. Certo and S.Trevis Certo, Modern Management: Concepts and Skills , Pearson Education, 15th edition, 2018

REFERENCE BOOKS:

1. Gerald A Cole and Phil Kelly, "Management Theory and Practices'', Cengage Learning EMEA, 9th Edition, 2020.
2. JohnR. Schermerhorn : Paul Davidson; Peter Woods; Aharon Factor, Management'', Milton QLD : John Wiley and Sons Australia , Ltd,7th Edition,2020
3. Charles W.L. Hill and Steven Mc Shane , Principles of Management, McGraw Hill Education , Special Indian Edition 2017.
4. Robert Konopaske, Jphn M Ivancevich, Michael T Matteson , Organizational Behavior and management ,11th edition,Tata McGraw Hill, 2017.

WEB SOURCES:

- https://us.sagepub.com/en-us/nam/principles-and-practices-of-management-and-organizational-behaviour/book251882#:~:text=Principles%20and%20Practices%20of%20Management%20and%20Organizational%20Behaviour%20provides%20a,performance%20in%20the%20global%20era.
- https://courses.lumenlearning.com/wmopen-organizationalbehavior/chapter/management-theory-and-organizational-behavior/
- https://online.nwmissouri.edu/articles/mba/why-managers-understand-organizational-behavior.aspx

23CMBL12 **BUSINESS STATISTICS & QUANTITATIVE TECHNIQUES** **4 0 0 4**

COURSE OBJECTIVES:

- 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.

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

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.

TEXT BOOKS:

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

REFERENCE BOOKS:

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

WEB SOURCES:

1. https://www.wiley.com/enin/Quantitative+Methods%3A+An+Introduction+for+Business+Management-p-9780470496343
2. https://weatherhead.case.edu/academics/courses/EMBA438B
3. https://dl.acm.org/doi/book/10.5555/3074303

23CMBL13 MANAGERIAL ECONOMICS 4 0 0 4

COURSE OBJECTIVES:

- 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.

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.

ECONOMIC THEORY **12**

UNIT V

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

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 : Discuss the demand analysis decisions methods as to forecasting.

CO – 3 : Apply the managerial decision functions of the firm.

CO – 4 : Examine and elaborate the basic theories related to business practices.

CO – 5 : Appraise on the decision as to environment and given

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

WEB SOURCES:

1. https://www.cheggindia.com/career-guidance/managerial-economics-principals-types-and-scope/
2. https://theinvestorsbook.com/managerial-economics.html
3. https://www.analyticssteps.com/blogs/what-managerial-economics-definition-types-nature-principles-scope

23CMBL14 ACCOUNTING AND FINANCE FOR LOGISTICIS AND SUPPLY CHAIN MANAGEMENT 3 1 0 4

COURSE OBJECTIVES:

- To think in a new and more creative way when analyzing or forecasting financial information, new tools common to financial statement analysis and how to use them inpractical applications.
- To understand how managing finance can help solve business problems and increase the ability for better financial decisions.
- To familiarize with sources of finance and skills for better dividend and liquidity decisions

UNIT I INTRODUCTION TO ACCOUNTING AND RATIO ANALYSIS 12

Introduction to Management Accounting and financial Accounting-Need and Importance — Accounting concepts & conventions – Accounting Standards - Overview of IFRS and GAAP- Statutory disclosures in IFRS – Corporate reporting practices in India -Financial reporting standards for logistics activities- Double entry system of accounting - Financial Statements - Profit & Loss account & Balance sheet. Financial statement Analysis- Comparative Analysis, Common size & Trend Analysis - Ratio analysis – key performance indicators (KPIs) ratios for logistics and supply chain management.- Fund flow statements advantages and disadvantages- Cash Flow statement -

UNIT II ANALYSIS OF COST CONCEPTS AND BUDGETING 12

Cost classification and behavior in logistics and supply chain activities- Activity-based costing (ABC) -Cost-volume-profit (CVP) analysis and its application to logistics decision-making– Break Even analysis – Budgeting - Importance of budgeting and financial planning in logistics and supply chain operations – Preparation and interpretation of different types of budgeting -

UNIT III FINANCIAL MANAGEMENT , ANALYSIS OF LOGISTICS PROJECTS AND INVESTMENTS 12

Introduction – Nature of Financial management –Objectives of financial management -Financia Decisions- Role of finance in logistics and supply chain management - Capital budgeting – meaning Evaluating logistics investment opportunities -Different methods – Payback, Net Present Valu Internal rate of return, Profitability index and average rate of return**.**

UNIT IV COST OF CAPITAL AND FINANCING DECISION 12

Sources of finance - Cost of Capital – Meaning and Significance – Components – Cost of Equity, Cost of Debt, Cost of Preferred capital, Cost of retained earnings and weighted average cost of capital - Meaning of Capital Structure - Determinants of capital structure.

UNIT V FINANCIAL RISK MANAGEMENT IN LOGISTICS AND SUPPLY CHAIN MANAGEMENT 12

Overview of Financial Risk Management in Logistics and Supply Chain Management and Its Significance-Types of Financial Risks in Logistics and Supply Chain Management Operational Risk- Market Risk-Liquidity Risk- Credit Risk-Impact of Financial Risks on Logistics, Supply chain Operations and Overall Business Performance- Impact of Technology and Data Analytics on Risk Management Practices in Logistics.

TOTAL: 60 HOURS

COURSE OUTCOME

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

CO 1: Understand the fundamental concepts of accounting and finance related to the logistics and supply chain industry.

CO 2: Demonstrate preparation of financial statements and interpretation through various techniques

CO 3: Evaluate various capital investment opportunities and make informed investment decisions in logistics and supply chain

CO 4: Apply cost concepts and analysis techniques to identify and control costs

CO 5: Identify and manage financial risks within logistics and supply chain operations

TEXT BOOKS:

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

23CMBL15 LEGAL & BUSINESS ENVIRONMENT 4 0 0 4

COURSE OBJECTIVES:

- The objective of this course is to familiarize the students with various laws that will help them to refine their understanding of how law affects the different aspects of the business.
- To describe the nature and classes of contracts.
- To analyze, and interpret the various activities related to business, property, and business.

UNIT I INTRODUCTION 12

Basic principles of the Indian Constitution – Fundamental rights: Freedom of trade and commerce - Government contract. **Indian Contract Act, 1872:** Essentials of Contracts - Classification of Contract, Quasi contract, Performance of Contract, Breach of Contract and its Remedies, Discharge of Contract.

UNIT II SPECIAL CONTRACTS 12

Sales of Goods Act, 1930 -Sales, Agreement to sales & Hire Purchase, Rights of Unpaid Seller, Caveat Emptor, Condition & Warranties - Laws of Agency -Creation of agency, Types of agent, Rights, and Duties of Principal and Agent, Termination agency- Bailment, Pledge, Guarantee, and Indemnity. Negotiable Instruments Act 1881 - Partnership Act 1930

UNIT II CONSUMER PROTECTION ACT 1986 & COMPETITION ACT 2002 12

Consumer Protection Act 1986 -Competition Act 2002: Introduction, Definitions, Enquiry into Certain Agreements and Dominant Position of Enterprise and Combinations.

UNIT VI COMPANY ACT 2013 12

Characteristics and types of companies, Formation, MOA, AOA, Prospectus, Power, Duties and Liabilities of Directors, Appointment of Board of Directors, Winding up of Companies.

UNIT V IPR & IT ACT 2000 12

Protecting the property of Business-Copyright, Trademark, Secret, Geographical Indications-Cyber Crimes, IT Act 2000 and 2002, Cyber Laws, Introduction of IPR Intellectual Property Laws-Alternate Dispute resolutions.

TOTAL: 60 HOURS

COURSE OUTCOMES:

- CO1: Understand the fundamental legal principles in developing various contracts and
- commercial laws in the business world
- CO 2: Identify the common forms of business associations and elements of Corporate Governance CO 3: Develop insights regarding the laws related to industrial environment
- CO 4: Gather knowledge on movement of business enterprises
- CO 5: Understand the role of consumer rights and cyber laws in the modern business environment

TEXT BOOKS:

1. N. D. Kapoor, Elements of Mercantile Law, Sultan Chand and Company, India, 2017.
2. P. K. Goel, Business Law for Managers, Biztantatara Publishers, India, 2017.
3. Akhileshwar Pathak, Legal Aspects of Business, Tata McGraw Hill,, 6th Edition 2018.
4. Taxmann's Companies Act with Rules, Taxmann, (2022)
5. Companies Act ,2013, Commercial Law Publishers, (2021)

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.

WEB SOURCES:

1. https://www.airtract.com/article/the-legal-environment-of-business-%E2%80%93-a-completeguide#:~:text=Legal%20environment%20of%20business%20is,the%20scope%20of%20the%20firm.
2. https://www.indiastudychannel.com/resources/.6169-What-Legal-Environment.aspx
3. https://www.lawteacher.net/free-law-essays/international-law/the-law-that-regulates-businesses-in-united-state-of-america-international-law-essay.php

SOFT SKILLS AND ETIQUETTE FOR MANAGERS

23CMBL16 **4 0 0 4**

COURSE OBJECTIVES:

- To enhance the soft skills that need to be in place for students to work collaboratively
- To gain in-depth -depth understanding of the importance of etiquette in different social contexts.

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

WEB SOURCES:

1. https://corporatefinanceinstitute.com/resources/knowledge/finance/analysis-of-financial-statements/
2. https://www.aafmindia.co.in/financial-statement-analysis-tools-limitation-uses-process
3. https://www.accountingtools.com/articles/2017/5/14/financial-statement-analysis

UNIT I - INTRODUCTION **12**

Introduction to communication skills - Meaning-, Significance, Soft Skill For Managers-– First Impression- Workplace Requirements - Business Communication, Process- Forms Of Communication, Barriers Of Communication, Feedback, Verbal & Non Verbal Communication. Personality Development –Determinants of Personality- Attitude- Self Analysis. Critical Thinking, Problem Solving, Active listening. Creativity-Brainstorming- Mind Mapping - Thinking Out of The Box- Improving Creative Abilities.

UNIT II LEADERSHIP AND INTERPERSONAL SKILLS **12**

Corporate Skills, Emotional and Social Skills. -Understanding Others- – Self Awareness -SWOT analysis- Assertiveness - Forms of Assertion—Causes of Misunderstanding - Leadership Skills - Setting Objectives and Taking Initiatives. Meaning and importance of self-awareness building self-esteem, values and indicators of high and low self - esteem, activities to develop high self- esteem managing emotions, coping with stress, interpersonal skills.

UNIT III ETIQUETTE AND INTERVIEW 12

Etiquette- Meaning. types-Practicing Etiquette And Manners- Grooming – Attire – Professional Dressing and Body Language, Understanding Cultural Difference- -Interview, Process and types of interviews, Importance of Interview, Art of Conducting and Giving Interview - Interview preparation techniques.

UNIT IV GROUP DYNAMICS AND TECHNICAL WRITING 12

Group Dynamics working as a team. Conflicts and their resolution, Significance of Brainstorming in Business Decisions, E-Meeting - Technical Writing Skills- Business reports and Proposals, Format, visual aids and contents, Oral Business presentations.

UNIT V SOFT SKILLS 12

Presentation Skills - Time Management-Goal Setting and Prioritization. Preparing a Personal Schedule - Short Term and Long Term Goals - Implementing Goals - Task List Organization. Types of Managerial Speeches-Speech of Introduction, Occasional Speech, Theme Speech-Effective Public Speaking Skill. Presentation and Extempore- A Creative Writing, Poster Making, Case Study - Persuading And Negotiating -Networking- Maintaining Morale - Inspiring Others.Group discussion , Time Management

TOTAL: 60 HOURS

COURSE OUTCOMES:

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

CO – 1 : Recall the basics of soft-skills and communication and its process, elements and importance.

CO – 2 : Evaluate themselves to meet the industry need

CO – 3 : Discuss the concept of Etiquette and significance of Interviews

CO – 4 :Identify different types of letters to make effective internal and external correspondence

CO – 5 : Classify various soft skills required for the managers

TEXT BOOKS:

1. Sanjay Kumar &Pushpalatha, Communication Skills, Oxford University Press, 2011.
2. The Etiquette Book : a Complete Guide Gide To Modern Manners- Jodi r.r.Smith, Sterling publication , New York (2011)
3. Winning At Interviews (Second Edition)- Edgar Thorpe And Showick thorpe, Pearson, New Delhi 2009
4. Alex k (2012) Soft Skills - Know Yourself And Worls, s.Chand & Company Ltd.New Delhi
5. Kaul& Asha, Effective Business Communication, PHI 2nd Edition, 2006.

REFERENCE BOOKS:

1. Lesikar R.V &Flately 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.

3. Meena.k And Ayothi (2013) a Book On Development Of Softskills (Soft Skills: a Road Map To Success), p.r. Publishers Distributions ,Trichy

WEB SOURCES:

1. https://www.softskillsusa.com/what-is-meaning-of-business-communication-skills.php
2. https://www.atctraining.com/soft_skills_definition_of_communication.htm
3. https://www.jobwise.co.uk/the-importance-of-soft-skills-in-business/

23CMBL17 MARKETING MANAGEMENT 4 0 0 4

COURSE OBJECTIVES:

- To understand the basics of market, marketing, marketing environment and businessenvi ronment and its domain knowledge.
- To understand the core concepts in marketing concepts, critical thinking, problem solvi ng an analysis

UNIT I INTRODUCTION AND CONSUMER BEHAVIOUR 12

Understanding the term Marketing-Importance of Marketing-Scope of Marketing - Core Concepts - Company Orientation toward marketplace - Pillars of Marketing and Customer Value - Marketing Environment-Micro and Macro Environment. Consumer Markets - Understanding consumer behavior and decision-making process - Factors influencing consumer behavior Model of Consumer Behavior - The Howard Sheth Model of Buying Behaviour - The Nicosia Model - The Engel-Kollat – Blackwell Model, Factors affecting consumer behaviour. Stages in the adoption process. Service marketing – characteristics – Extended 7Ps in service marketing

UNIT II MARKET SEGMENTATION AND MARKETING RESEARCH 12

Definition and importance of market segmentation-Benefits and challenges of effective segmentation-Role of market segmentation in marketing strategy - Market Segmentation: Levels and Bases for Segmentation, Segmenting Consumer Market s,Business Markets, Market Targeting Evaluating Market Segments Product Positioning forco mpetitive advantage, Positioning Strategies.- Understanding consumer behavior and decision-making- Key considerations in B2B market segmentation -Using data analytics for segmentation in the digital Era-Personalization and targeting in digital marketing- Marketing Research – Meaning and Scope of Market Research -- Market Research Process- Market research and analytics

UNIT III MARKETING MIX- PRODUCT AND PRICE 12

Introduction to Product and Price- Overview of the marketing mix and its components- Importance of product and price in the marketing strategy-Relationship between product and price decisions- Decisions Involved in Product, Branding, Packaging, Product Extension Strategies - Product Line and Product Mix Decisions, New Product Development-Product Life Cycle. Pricing Products.

UNIT IV MARKETING MIX- PLACE ,PROMOTION AND DISTRIBUTION **12**

Introduction to Place and Distribution- Channel Management Decisions- Global Distribution and International Marketing- E-commerce and Digital Distribution-

Technology-driven disruptions in distribution- Automation- Artificial intelligence, and blockchain Promotion Mix – Advertising- Socially responsible marketing campaigns –Sales Promotion, Public Relations, Personal Selling, Promotion ,Decisions.- Sustainable marketing practices.

UNIT V MARKETING RESEARCH AND EMERGING TRENDS IN MARKETING **12**

Green marketing Concept - Customer Relationship marketing – Digital marketing and social media strategies- Search engine optimization -Influencer marketing and content marketing- Marketing automation and artificial intelligence-Sustainability and socially responsible marketing- E-commerce and omni-channel marketing- Customer Engagement through Gamification.

TOTAL: 60 HOURS

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 the company's 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

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.

WEB SOURCES:

1. https://www.iedunote.com/marketing-management#:~:text=Marketing%20management%20is%20the%20process,satisfy%20individual%20and%20organizational%20goals.
2. https://www.economicsdiscussion.net/marketing-management/what-is-marketing-management/31788
3. https://www.indeed.com/hire/c/info/marketing-management

23PMBL11 **COMPUTER APPLICATIONS FOR MANAGERS – PRACTICAL** **0 0 2 1**

COURSE OBJECTIVES:

- 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.

UNIT I **INTRODUCTION TO COMPUTER APPLICATIONS FOR MANAGERS** **6**

Overview of computer applications in managerial decision-making- Basic computer skills and software tools for managers- Keyboard shortcuts and productivity tips- Practical tasks related to typical managerial activities, such as report writing, data analysis, creation of audio visuals - Information Security and Privacy-Introduction to information security and privacy concepts-Protecting sensitive information and data- mitigating common Cyber security risks-Conducting effective web conferences and video calls- Email Communication-Writing professional and concise emails-Managing email etiquette -Online collaboration tools Google Drive, SharePoint-Virtual meeting and video conferencing tools.

UNIT II **INTRODUCTION TO MICROSOFT WORD** **6**

Overview of Microsoft Word and its features-Understanding the Word interface and navigation-Creating, opening, and saving Word documents– Working with Documents Converting Files to different format – Importing, Exporting, Using –menu bar-Tool Bar, and Formatting Documents – Paragraph formatting: alignment, indentation, spacing-Applying styles and themes to documents-Working with headers, footers, and page numbers Functions of menu bar and tool bar- Merging, Splitting, and Sorting. Drawing – Inserting Clip Art, Pictures. Tools – Spell check, Mail Merge-Print preview & Printing Documents.

UNIT III **INTRODUCTION TO BASIC MICROSOFT EXCEL** **6**

Overview of Microsoft Excel and its features-Understanding the Excel interface and navigation-Creating, opening, and saving Excel workbooks-Working with Worksheets and Data Entry-Managing worksheets: adding, deleting, and renaming-Entering and editing data in cells-Formatting

cells: applying number formats, fonts, and alignments-Using basic functions and formulas- Sorting and filtering data-Applying conditional formatting to highlight data-Working with functions: SUM, AVERAGE, COUNT, MAX, MIN, etc.

UNIT-IV INTRODUCTION TO ADVANCED MICROSOFT EXCEL 6

Using logical functions: IF, AND, OR, Nested IFs.- Creating and formatting charts: bar, column, line, pie, etc.-Customizing chart elements: titles, legends, axes-Adding trend lines and data labels to charts-Creating combination charts and sparklines- Creating PivotTables -Grouping and summarizing data in PivotTables-Using PivotTable slicers and filters- Working with advanced functions: VLOOKUP, HLOOKUP, INDEX, MATCH, etc.

Using logical and conditional functions: IF, SUMIF, COUNTIF, etc.

UNIT V INTRODUCTION TO MICROSOFT POWERPOINT 6

Overview of Microsoft PowerPoint and its features-Understanding the PowerPoint interface and navigation-Creating, opening, and saving PowerPoint presentations- Slide Design and Layout-Choosing appropriate slide layouts, Modifying slide backgrounds and themes

Formatting text and applying styles, Using images, shapes, and icons for visual impact- Content Creation and Organization-Inserting and formatting text boxes, Adding and formatting images, graphics, and multimedia elements, Creating and customizing SmartArt diagrams, Working with tables and charts - Slide Transitions and Animations, Applying slide transitions for smooth visual effects, Animating slide elements for enhanced presentation delivery, Customizing animation timings and effects, Using multimedia and audio in presentations – Creating interactive navigation and hyperlinks- Incorporating video and audio elements, Adding interactive quizzes and forms, Using screen recording and annotation tools.

TOTAL: 30 HOURS

COURSE OUTCOMES:

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

CO-1: Gain practical skills in using office productivity tools such as word processing, spreadsheet, and presentation software

CO-2: Gain proficiency in using collaboration and communication tools such as email, online file sharing, and video conferencing software

CO-3: Familiar with Online collaboration tools Google Drive, SharePoint-Virtual meeting and video conferencing tools

CO-4: Demonstrate effective web conferences and video calls-

CO-5: Demonstrate basic and advanced MICROSOFT EXCEL

TEXTBOOKS:

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

WEB SOURCES:

1. https://mcc.iavalley.edu/academic/computer-science-information-technologies/computer-applications-business/
2. https://www.oakton.edu/academics/academic_departments/computer_app_business/index.php
3. https://visionarybusinessperson.com/computer-application-in-business/

SEMESTER II

23CMBL21 INTERNATIONAL LOGISTICS 4 0 0 4

COURSE OBJECTIVES:

- 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

UNIT I INTRODUCTION TO INTERNATIONAL LOGISTICS 12

Definition, Scope and Meaning of International Logistics – 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 – Global Trade Trends and its impact on Logistics.

UNIT II OCEAN MODE OF TRANSPORTATION 12

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

UNIT III AIR AND FREIGHT TRANSPORTATION 12

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

UNIT IV LAND MODE 12

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

UNIT V EXIM PROCEDURE AND DOCUMENTATION 12

Export procedure in India, Import Procedure in India, Transport Documents, Mate Receipt, Bill of Lading – features and types, Air-way Bill, Lorry Receipt; INCOTERMS 2022; Packaging and Labeling for Exports- What is packaging? Functions of Packaging, Labeling the export packages, Packaging for different modes of transportation, Rail Receipt – International Transportation Laws.

TOTAL: 60 HOURS

COURSE OUTCOMES:

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

CO – 1 : Clarifying the various basic issues in international transportation.

CO – 2 : Carrying out the multimodal and intermodal transportation.

CO – 3 : Coordinating the freight costing and pricing.

CO – 4 : Monitoring about risks and insurance in ocean transportation.

CO – 5 : Designing about air mode of transportation.

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, 2nd edition (November 30, 2014)
2. Sunil Chopra and Peter Meindel. Supply Chain Management: Strategy, Planning, and Operation, Prentice Hall of India, 6th Edition 2013.

WEB SOURCES:

1. https://examupdates.in/international-marketing-logistics-notes/
2. https://www.researchgate.net/publication/296705994_International_Logistics
3. https://collegetutor.net/notes/Introduction_to_International_Logistics_pdf_notes

23CMBL22 **INTRODUCTION TO LOGISTICS & SUPPLY CHAIN MANAGEMENT** **4 0 0 4**

COURSE OBJECTIVES:

- 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

UNIT I INTRODUCTION TO LOGISTICS MANAGEMENT 12

Definition and scope of logistics management-Importance of logistics in supply chain management Evolution and trends in logistics management-Functions -In-bound and Out-bound logistics – Components of Logistics Management.- Logistics Service Provides (LSP)-Role of 2 PL, 3 PL and 4 PL - Concepts and importance of reverse logistics- Sustainable logistics practices and green initiatives

UNIT II SUPPLY CHAIN MANAGEMENT 12

Introduction to Supply chain management - Definition, objectives -functions of Supply chain and drivers – Drivers of supply chain performance –Material flow-financial flow- information flow--Green supply chain management and environmental sustainability of supply chain - Lack of supply chain coordination and the Bullwhip effect—- Lean and Agile Supply Chains

UNIT III INVENTORY AND WAREHOUSING 12

Demand forecasting – Role of IT in demand forecasting- --Inventory management-Concept and Types of Inventory, Functions of Inventory - – Continuous replenishment and Vendor managed inventory- Internet of Things (IoT) in Inventory Management - Real-Time Tracking and Tracing of inventory-Warehouse Automation: - Collaborative Warehousing- Warehousing Functions – Types – Site Selection – Layout Design..

UNIT IV PERFORMANCE MEASUREMENT 12

Overview of the importance of performance measurement in logistics and supply chain management, including key metrics and KPIs- Performance Measurement and Supply Chain Resilience- -Measuring Supply chain & Logistic performance – Metrics – Quantitative and

qualitative metrics- Enhancing supply chain visibility-. Supplier relationship management- Customer relationship management.

UNIT V Supply Chain Management and Logistics in Industry 4.0 12

Introduction to Industry 4.0 Logistics and supply chain management- Digitalization in Logistics- Sustainable Supply Chain Management in Industry 4.0- environmental, social, and economic sustainability concerns in supply chain design, planning, and operations.- circular economy principles in supply chain design, aiming to minimize waste and maximize resource efficiency.- Last-mile delivery innovations-E-commerce logistics- Sustainable Logistics in Industry 4.0

TOTAL: 60 HOURS

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.

TEXT BOOKS:

1. Doughlas W Lambert, “Fundamentals of Logistics Management, 10th Edition.2003

REFERENCE BOOKS:

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

WEB SOURCES:

1. https://ecampusontario.pressbooks.pub/businessfuncdn/chapter/global/

23CMBL23 MARITIME ECONOMICS & BUSINESS 4 0 0 4

COURSE OBJECTIVES:

- 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.
- 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.

UNIT I INTRODUCTION TO MARITIME BUSINESS 12

Introduction to Maritime Business, Reasons for Sea Transport, Supply of Ships, Ship Registration, Ship Classification, Ship measurement based on volume, Stowage, Types of Ships, Practitioners & Ethics in Maritime Business, law of carriage of goods by sea.

UNIT II LINERS 12

Liners- brief history, Role significance Conferences and Freight Tariffs, Liner Consortium Agreements-Alliances-Liner documentation, Charter Party Agreement, Chartered Ship Brokers, Coloader, NVOCC, SOLAS, Liner Agency, Arbitration, Ship Sale and Purchase-Financing Purchase, Valuation, Development of coastal shipping.

UNIT III CONTAINERISATION 12

Meaning –importance -Containerization, Types of Containers, its significance- Stowage of Cargo in Containers, Multimodalism, meaning- Pricing role- pricing methods-and Container freight rates – Incoterms 2020, Maritime Geography, Panama & SUEZ Canals, Trade routes, Major Ports by country geography, Digitalization & visibility on real time.

UNIT IV 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, Price adjustments of shipping services - Theory of demand

UNIT V 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, Business Process of shipping company, Supply demand & Managerial Decision making, Maritime supply chain, Port Operations, and Infrastructure

TOTAL HOURS - 60

TEXTBOOKS:

1. Williams, "The World of Shipping", Ashgate, 5th Edition, 2015.
2. Martin Stopford, "Maritime Economics", Taylor & Francis e-library, 10th Edition, 1997.
3. Kevin Cullinane, "International handbook of Maritime Economics", Edward Elgar Publishing Ltd, 9th Edition, 2011

REFERENCE BOOKS:

1. Introduction to Shipping, (Institute of Chartered Ship Brokers), 10th Edition, 2014.
2. Elements of Shipping, Alan Edward Branch, (Rutledge), 8th Edition.
3. Maritime Logistics, Dong Wook Song, (Emerald), 7th Edition, 2015.
4. Varshney. R.L. &Maheshwari. "Maritime Economics", (Prentice Hall of India), 10th Edition, 2008.
5. Mr. Wayne .k. Talley, "The Blackwell companion to Maritime Economics", Rutledge, Th Edition, 2014.

WEB SOURCES:

1. https://ecampusontario.pressbooks.pub/businessfuncdn/chapter/global/

23CMBL24 SUPPLY CHAIN ANALYTICS AND LOGISTICS OPTIMISATION 4 0 0 4

COURSE OBJECTIVES:

- 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 provide the applications of analytics in supply chain

UNIT I INTRODUCTION TO SUPPLY CHAIN ANALYTICS 12

Introduction – Supply Chain – Supply Chain Operations Reference (SCOR) Model – Decisions and Performance Measures in Supply Chain – Overview on Supply Chain, Analytics and Supply Chain Analytics – KPIs for Supply Chain Analytics – Importance of supply chain analytics in the flows involving money, material, information and ownership.

UNIT II INTRODUCTION TO LOGISTICS OPTIMISATION 12

Introduction – Markovian Processes – Exact & Approximate Methods – Simulation based optimization – Different types of production system – Line Balancing – Problem of Buffer sizing – Demand Forecasting – Stock Management – Production and replenishment planning – Lot-sizing methods – Scheduling Problems – Bull-whip effect

UNIT III DESCRIPTIVE & PREDICTIVE ANALYTICS 12

Introduction – Descriptive Analytics in Supply Chain – Business Intelligence in Supply Chain – Descriptive Analytics Techniques: Dashboard, Reporting, Data Visualization using MS Excel.- Introduction – Predictive Analytics in Supply Chain: Demand forecasting Techniques - Pricing techniques and Risk Interpretation – Predictive Analytics Techniques: Regression, Time Series Analysis, Simulation – Inventory optimization models and techniques.

UNIT IV PRESCRIPTIVE ANALYTICS – I 12

Introduction – Prescriptive Analytics in Supply Chain – Optimization – Classification of optimization problems – Optimization for Analytics – Operations Research Techniques for Analytics – Network planning in supply chain – Importance and design of logistics network planning

UNIT V PRESCRIPTIVE ANALYTICS – II 12

Supply Planning: Aggregate Production Planning (APP) and Pricing – Plant/Warehousing Decisions: Location Models – Logistics Decisions: Network Models – Inventory Models –

Inventory Optimization and Safety Stock Determination - Sourcing Decisions:

Analytic Hierarchy Process – Cognitive Analysis – Diagnostic Analysis – Modelling Flexibility in supply chain – Trends, Challenges and future of supply chain – role of ICT in supply chains.

TOTAL: 60 HOURS

COURSE OUTCOMES:

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

CO – 1 : Understand the SCOR Model for Analytics.

CO – 2 : Identify the different type of analytics in supply chain.

CO – 3 : Illustrate the predictive models for analytics.

CO – 4 : Describe the different prescriptive models in supply chain

CO – 5 : Design the analytics using Simulation for supply chain.

TEXT BOOKS:

1. James R. Evans., Business Analytics – Methods, Models and Decisions, Pearson Publications, 1st Edition, 2012.
2. Supply chain management by Sunil Chopra, and Peter Meindl, Pearson
3. G.V.Shenoy,U.K.Srivastava,S.C.Sharma, Operations Research for Management, New Age International,Revised 2nd Ed, 2005.
4. D. Simchi-Levi, P. Kaminsky, E. Simchi-Levi, and Ravi Shankar, Designing and Managing the Supply Chain concepts, Strategies and Case studies, Third Edition, Tata McGraw Hill, New Delhi, 2008.

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
4. Jeremy F. Shapiro. Modeling the Supply Chain. Duxbury Thomson Learning

WEB SOURCE:

1. https://scg-lm.s3.amazonaws.com/pdfs/opentext-wp-dummies-guide-to-sca-100318.pdf
2. https://www.perlego.com/book/2011683/supply-chain-analytics-using-data-to-optimise-supply-chain-processes-pdf
3. https://www.routledge.com/Supply-Chain-Analytics-Using-Data-to-Optimise-Supply-Chain-Processes/Robertson/p/book/9780367540067
4. https://www.researchgate.net/publication/340169982_Big_Data_Analytics_and_Its_Applications_in_Supply_Chain_Management

JOURNALS:

1. International Journal of Purchasing and Materials Management
2. International Journal of Physical Distribution & Logistics Management
3. Supply Chain Management: An International Journal (Available on www.emaraldinsight.com)
4. Supply Chain Management Review Purchasing World

23CMBL25 SMART LOGISTICS AND E-COMMERCE FULFILLMENT 4 0 0 4

COURSE OBJECTIVES:

- To describe the smart logistics information, architecture & characteristics
- To know the application of technology and Government Policies
- To discuss the forecasting techiques
- To examine and analyze the E-Commerce and its Business Models
- To understand e-commerce Payment system across the Globe and their security systems.

Unit I Smart Logistics Information, Architecture & Characteristics 12

Meaning & Need Forms: LIS- Definition-Information functionality - Activities involved in transaction system-Principles of designing or evaluating LIS applications-LIS Architecture: Components: Two forms of activities; Planning & co-ordination flows & operating flows - Flow and use of integrated logistics information - Information forecasting: Definition-Process- components-characteristics. Information Approaches forecast techniques-Forecast error.

Unit II Smart Logistics Technology and Government Policies 12

Electronic Data Interchange-Personal Computers-Artificial Intelligence-Expert System- Bar coding &scanning. Electronic Data Interchange standards of Communication, Information, Future directions - Information Technology for supply chain management: Bull whip effect-IT in supply chain-Business Process Reengineering-ERP and EDI problem; Impact of Internet on SCM – National Logistics Policy (NLP) – Gati Sakthi – ULIP – National Highways Policy (NHP) – E-Way Bill – GST Impact on businesses - FASTag

UNIT -III E-Commerce and its Business Models 12

E – Commerce: Meaning, definition, features, functions of E-Commerce, Scope, Benefits and limitations of E-Commerce – The Internet and India – E-commerce opportunities and challenges for Industries - Business Models for E-commerce: The Birth of Portals – E-Business Models – Business-toConsumer (B2C) – Business-to-Business (B2B) – Consumer-to Consumer (C2C) – Consumerto-Business (C2B) – Brokerage Model – Value Chain Model – Advertising Model.

UNIT –IV E-Marketing, Finance and Payment Systems 12

E-Marketing – Traditional Marketing Vs.E-Marketing – Impact of E-commerce on markets – Marketing issues in E-Marketing – Online Marketing – E-advertising – Internet Marketing Trends – E-Branding – Marketing Strategies - E-payment Systems: Digital payment Requirements – Digital Token-based E-payment systems – Benefits to Buyers – Benefits to Sellers – Credit card as E-payment system – Mobile payments – smart card cash payment system – Micro payment system – E- Cash - E-Finance: Areas of Financing, E-Banking - Traditional Banking Vs. E-Banking – Operations in E-Banking – E-Trading – Stock Market trading – Importance and advantages of E-Trading.

UNIT –V Legal Framework for E-Commerce, Security & Mobile Commerce 12

E-Commerce Legal Framework – Rights and Obligations in the World of E-commerce – Copyrights – Defamation – Privacy – Contracts – Taxation – Signing a contract Electronically – Domain name and Registration - E-Security: Security for E-commerce – Security Design – Analysing risk – E-Banks and Security – safety of E-Commerce – Online Shopping with confidence – Firewalls for system Integrity – Virus Protection and Protection from intruders - Mobile Commerce: Challenges of E-commerce – Global Mobile E-Commerce – Secure Mobile Commerce – Secured Payments through Mobile – First Mobile Commerce Service.

TOTAL HOURS: 60

COURSE OUTCOMES:

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

CO – 1 : Assess the fundamentals of smart logistics information, technology and Government Policies

CO – 2 : Analyze the E-Commerce and its Business Models

CO – 3 : Describe the legal framework for e-commerce, security & mobile commerce

CO – 4 : Demonstrate the e-marketing, finance and payment systems

CO – 5 : Evaluate the current trends in smart logistics

TEXT BOOK:

1. Donald J. Bowersox & David J. Closs : Logistical Management, Tata McGraw Hill Publishing Co. Ltd, New Delhi, 2004 Elias. M. Awad, " Electronic Commerce", Prentice-Hall of India Pvt Ltd.
2. RaviKalakota, Andrew B. Whinston, "Electronic Commerce-A Manager's guide", Addison-Wesley.
3. Joseph P. T., E - Commerce – An Indian Perspective
4. Jaiswal S., E-Commerce Mohammad Mahmoudi Maymand, E-Commerce

5. Murthy C.S.V., E-Commerce - Concepts, Models and Strategies.

REFERENCE BOOKS

1. Efraim Turban, Jae Lee, David King, H.Michael Chung, “Electronic Commerce–A Managerial Perspective", Addison-Wesley.

2. Elias M Award, “Electronic Commerce from Vision to Fulfilment”, 3rd Edition, PHI, Judy Strauss, Adel El-Ansary, Raymond Frost, “E-Marketing”, 3RDEdition, Pearson Education.

3. David J. Bloomberg, Stephen LeMay& : Logistics, Prentice-Hall of India PvtLtd.,Joe B. Hanna New Delhi, 2003.

23PMBL21 **MOOC - PRACTICAL** **0 0 2 1**

The objective of this course is to take the best teaching learning resources to all to create a levelled platform. To make use of the Indian massive online to the aspiring youth of India

- The students will select a MOOC course from the Swayam platform.
- They will spend 2 hours per week undergoing this practical MOOC course under the guidance of a faculty.
- Every course will have a minimum of 8 to a maximum of 12 assignments depending on the duration of the course.
- Assignments will be submitted as per the requirements of the course.
- The marks scored in the assignments will be taken for internal assessment marks.
- The students will appear for a final practical exam conducted by VISTAS.

COURSE OUTCOMES:

CO – 1 : Understand the latest developments in the field of study

CO – 2 : Explain the students with latest information about the field of study

CO – 3 : Apply the skills in the business world

CO – 4 : List the various skills gained through this course

CO – 5 : Summarize the concepts for application

23IMBL21 INTERNSHIP 0 0 12 6

COURSE OBJECTIVES:

The internship module aims to provide the student with:

- A practice-oriented and 'hands-on' working experience in the real world or industry, and to enhance the student's learning experience.
- An opportunity to develop a right work attitude, self-confidence, interpersonal skills and ability to work as a team in a real organisational setting.
- An opportunity to further develop and enhance operational, customer service and other life-long knowledge and skills in a real world work environment.
- Pre-employment training opportunities and an opportunity for the company or organisation to assess the performance of the student and to offer the student an employment opportunity after his/her graduation, if it deems fit.

COURSE OUTCOMES:

At the end of the course, a student will be able to

CO – 1: Understanding the application of knowledge and skill sets acquired from the course and workplace in the assigned job function/s.

CO – 2: Applying real life challenges in the workplace by analyzing work environment and conditions, and selecting appropriate skill sets acquired from the course.

CO – 3: Create critical thinking and problem-solving skills by analyzing underlying issue/s to challenges.

CO – 4: Understanding the ability to harness resources by analyzing challenges and considering opportunities.

CO – 5: Understanding appreciation and respect for diverse groups of professionals by engaging harmoniously with different company stakeholders.

SEMESTER III

23CMBL31 **BUSINESS RESEARCH METHODS AND SPSS** **3 0 0 3**

COURSE OBJECTIVES:

- To develop a research orientation among the students and acquaint them with fundamentals of research methods.
- To have a knowledge about research and how research is conducted.
- To understand the data collection methods the sampling methods and the data analysis method.
- To create awareness about the importance of research in all fields.

UNIT I **INTRODUCTION** **9**

Introduction to Research – Meaning of research-Research applications in social and business sciences – Characteristics of good research study — Types of Research – Research process– Defining the Research problem – Problem identification process – Research Questions – 'Literature Survey – Formulating the research hypothesis – Writing a research proposal

UNIT II **RESEARCH DESIGN AND MEASUREMENT** **9**

Research design – Definition – types of research design – Descriptive Research Designs: Exploratory – Cross-sectional studies and Longitudinal studies; Experimental Designs – Data Collection – Types of data –Primary and Secondary data – Methods of primary data collection –Online Interviews and Focus Groups – Observation – Interview – Case study Questionnaire and Schedule – Construction of questionnaire – pilot study

UNIT III **SAMPLING AND DATA COLLECTION** **9**

Sampling concepts- Sample vs Census – Non Sampling error-Sampling Techniques – Probability and Non–probability sampling methods- Determination of Sample size- Types of Measurement Scales; Attitude; Classification of Scales: Single item vs Multiple Item scale, Comparative vs Non-Comparative scales, Measurement Error, Criteria for Good Measurement.

UNIT IV **DATA PROCESSING AND ANALYSIS THROUGH SPSS** **9**

Data Processing Operations– editing – Coding –Data entry – Classification and Tabulation of Data – Univariate and Bivariate Analysis of Data: Descriptive vs Inferential Analysis – Chi-square Analysis – Analysis of Variance – t test – Procedure for testing hypothesis

UNIT V REPORT DESIGN AND WRITING 9

Introduction - Research Report - Different types – Criteria of Good Research -Structure of the research report – Title, Table of Contents – Synopsis, bibliography - Introductory Section –Research Design – Result Section – Recommendation & Implementation Section- - Bibliography – Citation rules Research ethics – Research databases –research metrics – Publication ethics – Use of plagiarism software – Turnitin – urkund and open source software tools

TOTAL: 45 HOURS

COURSE OUTCOMES:

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

CO – 1 : Demonstrate how research to be conducted in a systematic way

CO – 2 : Develop hypothesis and understand procedure for experimenting hypothesis

CO – 3 : Construct a questionnaire, interpret the results with the help of various statistical tools

CO – 4 : Analysis the data using the SPSS software

CO – 5 : Discuss the Researchers Ethical code and plagiarism software tools

TEXT BOOKS:

1. Kothari, C.R., Research Methodology", Methods and Techniques, New Age International, 6th Edition, 2010.

REFERENCE BOOKS:

1. Panneerselvam, R., "Research Methodology", Prentice-Hall of India, New Delhi, 7Th Edition, 2004.
2. Donald R. Cooper, Pamela S. Schindler and J K Sharma, Business Research methods,11th Edition, Tata McGraw Hill, New Delhi, 20 .

WEB SOURCES:

1. https://nptel.ac.in/courses/121106007
2. https://nptel.ac.in/courses/110107080
3. https://www.sagepub.com/sites/default/files/upm-binaries/36330_Chapter2.pdf
4. https://www.youtube.com/watch?v=LKH1Kp7TQA4

23CMBL32 GREEN LOGISTICS AND ESG PRACTICES 3 0 0 3

COURSE OBJECTIVES:

- To provide foundational knowledge associated with the green supply chain
- To describe the green supply chain and understand its best practices
- To teach the implication of today‘s most critical environmental issues
- To Illustrate the components of sustainable logistics within green logistics and its three components to include social, environment, and the economy.
- To describe how the various green supply chain practices can actually save money,
- increases efficiency and reduce delivery time.
- To examine and analyze the green manufacturing, logistics and transportation.
- To discuss the ESG designs associated with green logistics and supply chain management

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 ecodesign: 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, LOGISTICS AND TRANSPORTATION 9

Green Manufacturing or Production: Evolution, Definitions – 4Re‘s: recycling, remanufacturing, reuse and reduction – CSR – SDG's - ESG,'s - ISO 14000 systems – Life Cycle Analysis (LCA) – Lean Manufacturing for Green Manufacturing or Production.

UNIT V ESG PRACTICES 9

Defining and understanding Sustainability & ESG - Understanding the fundamentals of ESG Reporting - Introduction to BRSR – Evolution, Overview & Building Blocks - Understanding the requirements of Principle1 & 2 (along with best practice examples wherever required) - Understanding the requirements of Principle 3 - 6 (along with best practice examples wherever required) - Understanding the requirements of Principle 7 - 9 (along with best practice examples wherever required) - Familiarization with the steps involved in development of an effective BRSR

TOTAL HOURS: 45

COURSE OUTCOMES:

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

CO – 1 : Assess the fundamentals of green logistics

CO – 2 : Analyze the ESG practices

CO – 3 : Describe the green purchasing strategies

CO – 4 : Demonstrate ECO design for environment

CO – 5 : Evaluate the current trends in green logistics

TEXT BOOKS:

1. Purba Halady Rao, Greening the supply chain, A guide for Asian Managers
2. Joseph Sarkis, Yijie Dou. Green Supply Chain Management: A Concise Introduction, Routledge, 2017.
3. BUSINESS, SUSTAINABLE DEVELOPMENT & OTHER EMERGING ISSUES, Dr. Sudipta Mondal, Gourab Das (2021)

REFERENCE BOOKS:

4. Charisios Achillas, Dionysis D. Bochtis, Dimitrios Aidonis, Dimitris Folinas. Green Supply Chain Management, Routledge, 2018.
5. McKinnon (2006), A., Cullinane, S., Browne, M., & Whiteing, A. (2010). Green Logistics: Improving the environmental sustainability of logistics. London: Kogan Page. Decoupling the environmental impacts of transport from economic growth. Paris OECD. E-book can be found in the Online Library
6. Environmental, Social and Governance (ESG) Laws, Regulations and Practices in the Digital Era, Peter Yeoh (2022)

ELECTIVE COURSES – LOGISTICS

23EMBL01 MULTIMODAL TRANSPORTATION MANAGEMENT 3 0 0 3

COURSE OBJECTIVES:

- 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.

UNIT I MULTI MODAL 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

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 : Rephrasing about the multimodal and intermodal transportation.

CO – 3 : Using the freight costing and pricing.

CO – 4 : Monitoring the air transport and IATA.

CO – 5 : Constructing the various aspects air cargo transport.

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, 3rd edition 2002.
2. Hutchinson B.G, Principles of Urban Transport Systems Planning, McGraw-Hill Book Company (latest edition), 2013.

WEB SOURCES:

1. https://www.vtpi.org/multimodal_planning.pdf
2. https://www.nctr.usf.edu/wp-content/uploads/2015/08/77954.pdf
3. https://www.scribd.com/document/339980016/TRANSPORTATION-SYSTEMS-AND-LOGISTICS-MANAGEMENT-pdf
4. https://ocw.mit.edu/courses/engineering-systems-division/esd-260j-logistics-systems-fall-2006/lecture-notes/lect21.pdf

23EMBL02 LOGISTICS CONCEPTS AND PLANNING 3 0 0 3

COURSE OBJECTIVES:

- 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.

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

COURSE OUTCOMES:

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

CO – 1 : Predict the scope of logistics and supply chain management

CO – 2 : Identifying core and support activities in logistics.

CO – 3 : Representing the various issues in logistics integration.

CO – 4 : Testing the logistics channel participants and supply chain relationships.

CO – 5 : Constructing the logistics re-engineering.

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 editionMarch 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, 10th edition 2016.
3. Vinod V. Sople, Logistics Management, Pearson Education, 2nd edition 2009

WEB SOURCES:

1. https://www.studynama.com/community/threads/international-logistics-management-pdf-ebook-lecture-notes-download-for-mba.466/
2. http://sjput.in/pdf/ibiv_ilm.pdf
3. https://iimm.org/wp-content/uploads/2019/12/Logistics-and-Warehousing-Management.pdf

23EMBL03 INLAND WATERWAYS MANAGEMENT 3 0 0 3

COURSE OBJECTIVES:

- 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.

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

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 : Identify the special risks that are involved in safety

CO – 4 : Analyze the loading and weight distribution.

CO – 5 :Evaluate the Cost benefit analysis using inland waterways.

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

WEB SOURCES:

1. https://www.unescap.org/sites/default/d8files/pub_1836_fulltext.pdf
2. https://www.interreg-central.eu/Content.Node/D.T3.1.5-Assessment-of-inland-waterways-system.pdf
3. https://www.routledge.com/Inland-Waterway-Transportation-Studies-in-Public-and-Private-Management/Howe-Carroll-Hurter-Jr-Leininger-Ramsey-Schwartz-Silberberg-Steinberg/p/book/9781138955264
4. https://ncert.nic.in/textbook/pdf/legy210.pdf
5. https://www.gmpplus.org/media/fulpmnkq/ts-3-3-short-sea-shipping-and-inland-waterways.pdf

23EMBL04 FUNDAMENTALS OF SHIPPING MANAGEMENT 3 0 0 3

COURSE OBJECTIVES:

- To provide the knowledge about fundamentals of shipping management
- To equip the students with the knowledge of shipping, ship building and repair

UNIT I - INTRODUCTION OF SHIPPING 9

Role of Shipping in International Trade-Types of ships and cargoes carried by them - International Organizations serving the shipping industry (IMO, BIMCO, ICS, IACS, IAPH)- Ship Registration and Classification.

UNIT II LINER SHIPPING OPERATIONS 9

Liner shipping business - Types of Liner services - Container shipping lines and their services - Break bulk, Ro-Ro, and project cargo services - Liner freight rates - Liner cargo documentation - Liner agency functions

UNIT III DRY BULK BUSINESS 9

Dry Bulk shipping business- World's leading dry bulk ports and cargoes handled by them - Types of Dry bulk ships and the Dry Bulk industry structure - Dry bulk market indices - Types of Chartering - Port agency functions.

UNIT IV TANKER OPERATIONS AND BUSINESS 9

Liquid Bulk shipping business - World's leading wet bulk ports and cargoes handled by them -Types of tankers and gas carriers - Tanker freighting system (world scale) -Factors affecting Tanker Markets- Marine pollution conventions.

UNIT V SHIP BUILDING AND REPAIR 9

Service providers to shipping industry -Ship management companies -Ports, inland terminals, and Container Freight Stations- Ship building and repair yards -Financing the Shipping industry - Marine insurance providers.

TOTAL: 45 HOURS

COURSE OUTCOMES:

At the end of the course

CO 1: The students would be acquainted with the basics of shipping management

CO 2: The students will learn the skills needed for shipping industry

CO 3: The Students will understand the liner shipping operations

CO 4: The Students understand the liner shipping operations

CO 5: Ability to work with tanker operations and business

TEXT BOOKS:

1. Michael Robarts, Branch's Elements of Shipping, Ninth Edition, Routledge, 2014.
2. Coyle et.al, Management of Transportation, 7th Edition, Cengage Learning, 2011

REFERENCES:

1. Peter Brodie, Commercial Shipping Handbook, Third Edition, Informa Law from Routledge, 2014.
2. Review of Maritime Transport, UNCTAD, 2014.

WEBLINKS

- https://www.shiprocket.in/blog/best-shipping-mode-for-ecommerce-business/#:~:text=All%20three%20modes%20of%20shipping%2Dland%2C%20air%2C%20and%20sea,of%20transport%20might%20not%20offer.
- https://www.shippingandfreightresource.com/the-basics/
- https://www.flockfreight.com/blog/logistics-101-basics-of-freight-shipping/

23EMBL05 DIGITALISATION OF INDUSTRIAL LOGISTICS 3 0 0 3

COURSE OBJECTIVES:

- To explain the process of industrial automation
- To equip the students with the knowledge of inplant logistics
- To discuss the role of digitization in logistics

UNIT 1 INTRODUCTION TO INDUSTRIAL AUTAMATION 9

Introduction: Fundamentals of Transfer lines, Flow lines, Transfer Mechanisms, Move/Store/Pick/Put away materials. Industrial Control System**:** Purpose, types, Advantages, example of Control Systems in Logistics.

UNIT 2 LAYOUT, MATERIAL HANDLING AND WORK IN PROCESS 9

Layouts: Process, Product, hybrid and fixed position, example of automotive assembly plant. Racking: Types of Racking system, Operational maintenance MHE: Material handling systems in production, warehouse, ports, freight stations. **Work in Process management:** Input, Process, Output, waste, bottleneck, efficiency.

UNIT 3 INPLANT LOGISTICS 9

Dock to dock material flows inside the plant: Transportation inside the plant, Binfluence of MH and vice-versa, different approaches to move/ stores/pick/put away. Material flow: JIT, JIS, packing and returnablee containers. Safety: Hazards, Safety Procedures, safety audit, incident reporting

UNIT 4 LOGISTICS DIGITALIZATION 9

Computer and internet: office automation, Virtual offices, mobile applications Trade information Facilitation: Registration of Business, trading firm, filling returns, permissions, claims, complaints and feedback, tracking and tracing. E-marketplaces: Trading Portals, freight exchange

UVIT 5 DIGITAL TECHNOLOGIES 9

Supply chain technologies: reverse auction, e-procurement, bar-code,RFID. Logistics: electric vehicles, automated driving, transport innovations, augmented reality,3D printing.

TOTAL: 45 HOURS

COURSE OUTCOMES:

At the end of the course, a student will be able to

CO – 1: Understanding the application of digitalization in logistics

CO – 2: Applying various digital technologies in association with logistics

CO – 3: Create layout for material handling and ware house

CO – 4:To understand the practices to be followed in the inplant logistics

CO – 5: Understanding appreciation and respect for diverse groups of professionals by engaging harmoniously with different company stakeholders.

TEXT BOOK

1. Frank Lamb - Industrial Automation Hands-On - 2013 by McGraw-Hill Education.
2. Johannes Kern Mac Sullivan The Digital Transformation of Logistics: Demystifying Impacts of the Fourth Industrial Revolution (IEEE Press Series on Technology Management, Innovation, and Leadership -2021-Wiley-IEEE Press; 1st edition -Wiley-IEEE Press; 1st edition
3. Emerging technologies: Business analytics, block chain, artificial intelligence, IoT, augmented reality, Robotics Sheth, Vijay S. Industrial engineering methods and practices. Sewree, Mumbai: Penram International Publishing, 2006. Print.

REFERENCE BOOK

4. Automation, Production Systems and Computer Integrated Manufacturing M.P.Groover, Pearson Education.5th edition, 2009.
5. Innovations and Strategies for Logistics and Supply Chains, Prof. Dr. h. c. Wolfgang Kersten,Prof. Dr. Thorsten Blecker,Prof. Dr. Christian, 2015,HICL M. Ringle(https://hicl.org/publications/2015/20/1.pdf)
6. Lean Logistics: The Nuts and Bolts of Delivering Materials and Goods by Michel Baudin, Productivity press
7. Ravindra Sharma -Advanced Industrial Automation And Its Applications- Trinity Publications
8. Industrial Automation and Robotics: A.K.Gupta and S K Arora

WEBLINKS

1. https://www.google.com/search?q=digitalization%20in%20supply%20chain%20management%20and%20logistics%20pdf&ved=2ahUKEwiw-eOkhfj-AhVjXWwGHQciARQQmoICKAF6BAgHEBI&biw=1488&bih=738&dpr=1.25
2. https://www.anasoft.com/emans/en/home/news-blog/blog/Digitalization-of-Logistics-and-Intelligent-Supply-Chain
3. https://www.scmr.com/article/free_ebook_your_complete_guide_to_warehouse_automation

ELECTIVE COURSES – SHIPPING & LOGISTICS

23EMBL06 COMMERCIAL GEOGRAPHY 3 0 0 3

COURSE OBJECTIVES:

- To understand the clientele safe reliable efficient and economic shipping services.
- TounderstandMaritimeGeography,GeographyofTrade-Ports,Airports,LawofCarriageof goods by Sea, Arbitration, Ship Sale and Purchase-Financing Purchase and Valuations.

UNIT I COMMERCIAL GEOGRAPHY 9

Definition of commercial geography and its branches - Geographical Environment and Commerce – Advances in Commercial Geography: prospects, methods and applications- Law of Trade, the world highway- Ocean and its Carriers- The trade routes of Europe –North America- Asia- Atlantic- Mediterranean - Meaning, nature & Use of Resources - Classification of Resources.

UNIT II INTERNATIONAL TRADE 9

Trade geography - International trade in Geography - Geographical factors affecting International trade - India’s foreign trade of commodities - Characteristics of commodities and their origin, Economic, Transport and Commercial Geography - type of transportation used for movement to ports - Port Infrastructure for commodities.

UNIT III INDUSTRIAL AND COMMERCIAL GEOGRAPHY 9

Industrial and Commercial Geography - Role of Industries in Economic Development - Factors of Industrial Location - Major Industries in India - Iron & Steel Industries - Cotton, Textile Industries - Automobile Industries – Petrochemical industries - Balance of Trade to Industrial Development - Influence of Geographic Factors - Commercial Policy of Nations.

UNIT IV AGRICULTURE 9

Economics of Commercial Geography - Agricultural resources- Role of climate in agricultural production - Seasons for export of major agricultural products in India - Important world centres for export of agricultural products. – Agricultural product license in India.

UNIT V PORTS **9**

Types of Ports - Geographical features of ports - Ports of the world – Important bulk terminals – Important container terminals – Major oil terminals.

TOTAL: 45 HOURS

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.

TEXT BOOKS:

1. H.Robinson, "Economic Geography ", TheM& E hand book series, Macdonald & Evans,1968.
2. Stamp,SirL.Dudely, " Commercial Geography" , Prentice Hall Press, 9th Edition ,1973.
3. William P.Anderson , "Economic Geography" , Routledge, 1st Edition,2012

REFERENCE BOOKS:

1. ShyamPrakash,"FundamentalsofEconomicGeography'',PragunPublication,1st Edition 2012.
2. Dr. Jean-Paul Rodrigue , "Transportation and Commercial Geography" , Fifth Edition , 2020

WEB SOURCES:

1. https://www.gutenberg.org/ebooks/24884
2. https://www.jstor.org/stable/1774028?seq=1
3. https://www.nature.com/articles/111077b0

23EMBL07 AIR CARGO MANAGEMENT 3 0 0 3

COURSE OBJECTIVES:

- 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.

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 - Freighting 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

UNIT IV AIR SEA SHIPMENT 9

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

UNIT V DG CARGO 9

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

TOTAL: 45 HOURS

COURSE OUTCOMES:

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

CO – 1 : Learn about the airports and aircrafts.

CO – 2 : Representing the role of a custodian in air cargo.

CO – 3 : Know about the various IATA and ICAO airport and airline codes.

CO – 4 : Judging the roles of GSSA and the GHA.

CO – 5 : Learn about the various aspects air cargo transport.

TEXT BOOKS:

1. Yoon Seok Chang,Air Cargo Management, CRC Press, 2015.
2. Michael Sales Air Cargo Management: Air Freight and the Global Supply Chain Dec 2016
3. RuwantissaAbeyratne Competition and Investment in Air Transport Springer Nature; 1st ed. 2016 edition
4. Xie Chun Xun Zhu, Air Cargo Management Introduction - Aviation Logistics, Management Series (Chinese Edition), Southeast University Press, 2006.

REFERENCE BOOKS:

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

WEB SOURCES:

- https://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/S001827/P001830/M029358/ET/15244866958.8Q1.pdf
- https://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/S001827/P001830/M029358/ET/15244866958.8Q1.pdf
- https://www.routledge.com/Air-Cargo-Management-Air-Freight-and-the-Global-Supply-Chain/Sales/p/book/9781138659544
- http://sim.edu.in/wp-content/uploads/2017/10/Logistics-management-air-and-sea-1.pdf

23EMBL08 LINER TRADE AND DRYCARGO CHARTERING 3 0 0 3

COURSE OBJECTIVES:

- To Acquire basic knowledge about Development of Liner Service, Liner versus Tramp Service
- To study Cargo handling, Stowage Unitization and Containerization, Vessel loading and discharging process.
- To describe about Dry cargo ships, Charter Ship brokers, Trading-Letter of Credit-Market Reporting
- To Know about the developments in Freight Forwarding and NVOCC operations and their impact on Liner Trade.
- To know the methods of Chartering Party, Contracts and Carriage of goods by sea

UNIT I 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 containerships, Ro-Ro Barge carrying vessels, Refrigerated cargo ship, Conventional(Breakbulk) vessels, Future vessel developments, Economy of scale, Shipboard handling equipment.

UNIT II LINER CARGOES 9

Dangerous Goods-IMO special goods, Cargo handling and other methods of lifting cargo, Port handling equipment, Port terminals, Cargos towage-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 Airfreight 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 DRY CARGO **9**

Introduction-Dry Cargo 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, Chartered Ship Owners, Flag Of Convenience, Agency Agreement-Operators- 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 V 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.

TOTAL HOURS - 45

COURSE OUTCOMES:

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

CO – 1 : Describe the types of ships, ports, and trade routes

CO – 2 : Locate the main liner services and their trades in the world

CO – 3 : Describe the nature, characteristics, hazards, and stowage factors of goods.

CO – 4 : Describe the terminology of measuring ships including dimensions, tonnages,

CO – 5 : Distinguish the different types of businesses involved in the liner trades

TEXTBOOKS:

1. Allen Edward Branch – Elements of Shipping (Routledge) 8th Edition, 2007
2. Mr. JanoJanson& Dan Shneerson- Liner Shipping Economics- Routledge, (Mac Millan), (Mac Millan), 6th Edition, 1987
3. Mr. Burke & Russell John- International Logistics and Freight Forwarding, (Mac Millan), 8th Edition, 2001
4. Burke & Russell John, "International Logistics and Freight Forwarding", 6th Edition, 2001.

REFERENCE BOOKS:

1. Containerisation, Multimodal Transport, and Infrastructure Development in India (Shroff Publishers and distributors Pvt. Ltd.,) 5th Edition, 2007
2. G.Raghuram, "Shipping Management – Cases &Concepts, (Mac Millan), 6th Edition, 2008
3. Victor Dover Shipping Industry, "Constitution & Practice", (Mac Donald & Evans), 6th Edition, 2010.
5. Victor Dover Shipping Industry, "Constitution & Practice", Victor Dover, (Mac Donald & Evans), 8th Edition, 2008.
6. Frank Worsford, "Freight Transport & Environment", Frank Worsford, (Psychology Press), 9th Edition, 2008.

WEB SOURCES:

1. https://www.springer.com/gp/book/9789401079143
2. https://www.researchgate.net/publication/255587307_STRUCTURE_AND_OPERATIONS_IN_THE_LINER_SHIPPING_INDUSTRY
3. https://www.shipbrokers.org
4. https://shippingbooks.com/product/dry-cargo-charterin
5. https://www.researchgate.net/publication/308313470_What_Agents_need_to_know_about_Chartering_e-book

23EMBL09 COLD CHAIN LOGISTICS 3 0 0 3

- To understand the term cold chain logistics
- To discuss the operation carried out in cold chain logistics
- To discuss the specific conditions of cold chain logistics
- To understand Government Policies, Incentives and Subsidies
- To know cold chain market in India

UNIT I INTRODUCTION 9

Introduction to nature of materials towards transportation – Time sensitivity of Cargo – Nature and Characteristics of perishable Cargoes – Pharmaceuticals – Meat, Vegetables and Fruits e.t.c.,

UNIT II PACKING & FLEET OPERATIONS 9

Packaging requirements – Packaging Materials – Gel Packs, Dry Ice, Insulated Container, Quils, e.t.c., - Material Handling – Reefer Container - Pre-preparation for loading – Specific Loading – Proper stacking for temperature control

UNIT III INDIAN GOVERNMENT POLICIES, INCENTIVES & SUBSIDIES 9

Regulatory Bodies – Government of India Initiatives in Cold Chain- NWC Incentives for cold chain – National Subsidies – Role of Promotional Councils in Cold Chain - FIO

UNIT IV COLD CHAIN & MARKET IN INDIA 9

Tracking means of Transportation – Continuous Cold Chain – Effective and Efficient cold chain warehousing and Monitoring.

UNIT V SPECIFIC CONDITIONS 9

Various commercial aspects of Cold Chain – Specific Conditions for Perishable Cargo – Nature of Product packaging under speciality types – DG in Cold Chain

TOTAL HOURS: 45

COURSE OUTCOMES:

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

CO – 1 : Assess the fundamentals of cold chain logistics

CO – 2 : Analyze the filter operation of cold chain logistics

CO – 3 : Describe the specific conditions associated with cold chain logistics

CO – 4 : Demonstrate the packing and material handling in cold chain logistics

CO – 5 : Evaluate the current trends in cold chain logistics

TEXT BOOKS

1. Raymond R. Gunther: Refrigeration, Air Conditioning and Cold Storage Chilten Company, Philadelphia, USA 1957
2. Clive D.J. Dellino: Cold and Chilled Storage Technology Publisher: Kluwer Academic Publisher (1997)
3. S. Domkundwar and Subhash Arora: A Course in Refrigeration and Air Conditioning: Dhanpat Rai and Sons, Publishers, New Delhi (1994)
4. Brzozowska, Anna &Brzeszczak, Adam &Imiołczyk, Justyna&Szymczyk, Katarzyna. (2016). Managing cold supply chain.
5. A text book on Container and Multimodal Transport Management – K.V.Hariharan
6. Rodrigue, Dr. Jean-Paul and Notteboom, Dr. Theo (2014)

REFERENCE BOOKS

1. Andrew D Althouse and others: Refrigeration and Air Conditioning Goodheart – Willcox Company Inc. 1982
2. E.R. Hollowell: Cold Storage and Freezer Storage Manual AVI Publishing Co. (1980)
3. Ed. C.P. Mallet: Frozen Food Technology Balckie Academic and Professional, (1993)
4. . Aurel Gobaneu and Gabrila Lasesha and others (1976) Cooling Technology in the Food Industry: Abacus Press, Tunbridge Wells, U.K

WEB SOURCE

1. https://nptel.ac.in/courses/103107088/module11/lecture2/lecture2.pdf
2. https://swayam.gov.in/course/3687-refrigeration-and-air-conditioning

23EMBL10 SHIPPING LAW & MARINE INSURANCE 3 0 0 3

COURSE OBJECTIVES:

- 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 ofguarantee.
- To study the international marine laws, marine insurance, marineacts.

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 -Amendments in International Maritime Dangerous Goods code IMDG Code-Revised MARPOL Annex VI (Energy Efficiency Existing Ship Index (EEXI) to establish CII - Intercoms Latest Amendments 2020.

UNIT II VARIOUS TYPES OF CONTRACTS 9

Laws – Law Or Tors – 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 – Amendments in Admiralty and Maritime Law Amendments - Alternate Dispute Resolution – Arbitration – The Merchant Shipping Amendment Act 2014.

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, Marine Insurance 1963- Principle of insurance interest-Cargo Interests-Incidental Interest-Assignment.

UNIT V MARINE INSURANCE POLICY.

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-3rdparty Liability-General Averages, Institute Cargo clauses-Institute Cargo Clauses-Latest Amendments -Institute War clauses- International Hull clauses-Exclusions-Claim Provisions.

TOTAL: 45 HOURS

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, expresswarranties

CO – 5 : Discuss the marine insurance claims processing

TEXT BOOKS:

1. Simon Baughen, “Shipping law”, Institute of Chartered ShipBrokers,Routledge, 10th Edition, 2015.

REFERENCE BOOKS:

Bemire, “The Law Relating Marine Insurance”, Jain Book Agency, 6thEdition,2012.

Legal Principles in Shipping Business, (Institute of Chartered ShipBrokers).

WEB SOURCES:

https://www.kobo.com/ww/en/ebook/law-of-marine-insurance-1

https://www.sweetandmaxwell.co.uk/Product/Shipping/Arnould-Law-of-Marine-Insurance-and-Average/Hardback-and-eBook-ProView/42893545

23EMBL11 CUSTOMS LAWS AND PROCEDURES 3 0 0 3

COURSE OBJECTIVES:

- 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

OFFICERS OF CUSTOMS AND THEIR ROLES 9

UNIT I

HistoryofCustoms–WorldCustomsOrganization-RoleofCentralBoardofExciseandCustoms 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 - PowerofCentralGovernmentnotifygoods-PrecautionsbetakenbypersonsacquiringnotifiedGoods - Prevention or Detection of Illegal Export of Goods-Power of Central Government specify goods

UNIT II CUSTOMS DUTIES 9

Power exempt - Levy of & Exemption From, Customs Duties-Dutiable goods-Duty on Pilfered goods-Assessment of Duty-Interest on delayed Funds-Claim for Refund of Duty-Provisional Attachment protect revenue in certain case - Indicating Amount of Duty in Price of Goods, For purposeofRefund-Priceofgoodsindicateamountofdutypaidthereon-AdvanceRulings-Authority for Advance Rulings-Application for Advance Ruling-Powers of Authority-Procedure of Authority.

UNIT III CLEARANCE AND PAYMENT OF DUTY 9

Provisions relating Conveyances Carrying Imported or Exported Goods-Arrival of Vessels and Aircraft in India-Power board Conveyances-Delivery of export manifest or export report-No ConveyanceleavewithoutwrittenorderClearanceofImportedgoodsandExportedGoods-Chapter not apply baggage and Postal articles –Clearance of goods for home consumption- Clearance of goods for exportation–Online filing of Shipping Bill and Bill of Entry-Various Schemes available

in India

and benefits – Electronic Data Interchange-- Easy of Doing Business and Single Window – ICEGATE.

UNIT IV WAREHOUSING ANDDRAWBACK 9

Warehousing-Appointing of Public Warehouses-Licensing of Private Warehouses-Clearance of Warehoused goods for home consumption and Exportation-Cancellation and return of arehousing

bond - Drawback-Interest on drawback-Prohibition and regulation of drawback.

9

UNIT V IMPORT AND EXPORTS PROMOTION & INCENTIVES

Import and Export Incentive Procedures & Documentation -State Trading- Indian Trade Promotion Organization (ITPO); Commodity Boards; Export Promotion Organizations & Councils Chamber of Commerce (COC); FIEO - Trade Data Base.

TOTAL: 45 HOURS

COURSE OUTCOMES:

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

CO – 1 : To know about the various customs laws and prohibitions of goods in the customs laws

CO – 2 : To describe about the customs duties, refund claim and advance ruling

CO – 3 : Understanding about the EDI export import process by seaways, airways and postal goods

CO – 4 : To describe about various aspects of warehousing with reference import and export. Drawback claim procedures

CO – 5 :To explain about the various import and export schemes available in India

TEXT BOOKS:

1. V. Datey, “Customs Law and Foreign Trade Policy”, Taxman, 24 t h Edition, 2022.
2. R.K.Jain, Customs Tariff of India : Taxmann 2022-23

REFERENCE BOOKS:

1. The customs act 1962, Commercial Law Publisher India Pvt., Ltd, 13h Edition, 2022

WEB SOURCES:

1. https://www.cbic.gov.in/resources/htdocs-cbec/customs/cst2022-010122/chap-1-98.pdf

2.. https://delhicustoms.gov.in/pdf/CBIC--Time%20Release%20Study%202022%20Book.pdf

3. https://www.cbic.gov.in/htdocs-cbec/latest-Initiative

23EMBL12 CONTAINER MANAGEMENT 3 0 0 3

COURSE OBJECTIVES:

- 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.

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 & Multi-modal 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 global trade. Types and functions of container terminals Gateway,

Transshipment, transit, dedicated, common user. Terminal ownership- Global Container 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 containerterminals-Shiptoshorehandlingequipment-YardequipmentforTransfer, 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 - TerminalOperatingSystems(TOS)-ElectronicDataInterchange(EDI).KeyPerformanceIndicators (KPIs) for terminal operations- Management and environment metrics

TOTAL: 45 HOURS

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

TEXT BOOKS:

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

2. KapHwanKim,Hans-OttoGünther,“ContainerTerminalsandCargoSystems:Design,
3. Operations Management, and Logistics Control Issues”, Springer; 1st Edition, 2010.
4. Evrim UrsavasGuldogan , “Port Operations and Container Terminal Management: with applications”, Springer ,6th Edition,2011.

REFERENCE BOOKS:

1. Wiley, “Port Operations and Container Terminal Management”,EvrimUrsavasGuldogan, Springer, LatestEdition.
2. UrgenSorgen Frei, “Port Business” BoD Books, 2nd Edition.2000.

WEB SOURCES:

1. https://bookauthority.org/books/best-container-technology-ebook

- Regional terminal operators.

23EMBL13 INLAND TRANSPORT MANAGEMENT 3 0 0 3

COURSE OBJECTIVES:

- 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.

UNIT I INTRODUCTION TO INLAND TRANSPORT 9

Development of Inland Transport in India-Importance-Introduction to Terminals – Post Globalization-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

Unitization- Containerization and Palletization-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 equipment used in container 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

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.

TEXT BOOKS:

1. Mixing Inland &Coastal Water- C.RobertKoh And John.E 1979 Publisher(Elsevier)2013
2. Logistics And Management –Reji Ismail2008

REFERENCE BOOKS:

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

WEB SOURCES:

1. https://www.scribd.com/book/401856728/Management-of-Road-Freight-Transport
2. https://www.researchgate.net/publication/271213655_IT_Support_in_Management_of_Road_Transport_Business
3. https://morth.nic.in/e-books

23EMBL14 DELIVERY MANAGEMENT 3 0 0 3

COURSE OBJECTIVES:

- To know the role of distribution in supply chain, distribution networkplanning.
- To cognize the role of distribution in e-business, role of warehouse and transportation, distribution requirementplanning.

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

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

TEXT BOOKS:

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

REFERENCE BOOKS:

1. Alan Rushton, John Oxley, Kogan,HandbookofLogistics&DistributionManagement,2006
2. JanatShah, Supply Chain Management, Pearson Education 3th Edition,2010
3. Janat Shah, Supply Chain Management andAdvancedPlanning,Springer,11thEdition,2008.
4. Robert Johnston, Delivery management, Pearson, 4th edition,2012.

WEB SOURCES:

1. https://locus.sh/resources/ebooks/?locale=en
2. https://jungleworks.com/e-books/
3. https://www.freebookcentre.net/Business/Management-and-Leadership-Books.html

23EMBL15 INTERNATIONAL TRANSPORT LAW 3 0 0 3

COURSE OBJECTIVES:

- 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.

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 MULTI MODAL 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 act1962.

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

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

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.

WEB SOURCES:

1. https://www.freebookcentre.net/Business/Management-and-Leadership-Books.html
2. https://www.globaltranz.com/strategic-logistics-and-transportation-management-e-book/

23EMBL16 EXPORT-IMPORT DOCUMENTATION 3 0 0 3

COURSE OBJECTIVES:

- 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.

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–MethodsofExporting–PaymentTerms–LetterofCredit–LiberalizationofImports– Negative List for Imports – Categories of Importers.

UNIT II DOCUMENTATION 9

Aligned Documentation system – Commercial Invoice – Shipping Bill – Certificate of Origin – ConsularInvoice–Mate'sReceipt–BillofLading–GRForm–ISO9000–Procedureforobtaining 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 Filling 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 – SpecialFocusInitiatives–DutyDrawback–DeemedExports–ASIDE–MAI&MDA–StarExport Houses – EPCG Scheme – Incentives for Exporters – Export Promotion Councils – Commodity Boards– FIEO–IIFT–EOUs–SEZs–ITPO–ECGC–EXIMBank.-IndiaNewForeignTrade
Policy 2015 – 2020

TOTAL: 45 HOURS

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.

TEXT BOOKS:

1. Thomas E. Johnson, "Export/Import Procedures and Documentation", Amacom; 4th 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,"ExportImport&Logisticmanagement",AMACOMpublication,2nd Edition 1996.

REFERENCE BOOKS:

1. Usha Kiran Rai, "Export-Import and Logistics Management", Asok Publication, 8thEdition, 2000.
2. T E. Johnson, D L. Bade, "Export/Import Procedures and Documentation", AMACOM publication. 6th Edition,2011.

WEB SOURCES:

http://www.danangtimes.vn/Portals/0/Docs/14784517-14_Export%20-%20Import%20procedures.pdf

http://rafael.glendale.edu/poorna/ib/seyoum%20book.pdf

23EMBL17 LOGISTICS SITE SAFETY MANAGEMENT 3 0 0 3

COURSE OBJECTIVES:

- This course will cover safety and risk in handling products through different machines and modes of transport, unitizing and breaking the bulk.
- In addition, financial risks involved in contracting and purchase actions shall be lucidly explained. Emphasis shall be made on concept of Ethics in Management in L/SCM functions.

UNIT I HAZARDS IN WORK PLACE 9

Introduction – Hazards in warehouse / factory material handling – Hazards in road transportation – Hazards in port side handling – Hazards in rail side handling – Hazards in ground handing at airports

UNIT II PERSONAL PROTECTIVE EQUIPMENT 9

Eye Protection, Face Protection, Head Protection, Hearing Protection – Respiratory Protection – Hand & Arm Protection – Safety Footwear –Protective Workwear – Fall Protection

UNIT III SAFE WORK PRACTICES 9

Risk assessment – Safety checklists and action plan – Warehouse safety practices – Transport safety practices –Emergency procedures

UNIT IV LAWS AND REGULATIONS 9

National Policy on Safety, health and environment at work place –Laws related to industrial safety and health: The factories act, 1948; The mines act, 1952; The Dock workers act, 1986 – ILO Standards for Occupation Safety and Health

UNIT V RISK AND COMPLIANCE MANAGEMENT 9

Risk and purchase contract terms – Hazmat regulatory compliance in India, Europe and the USA – Covering risk with insurance.

TOTAL: 45 HOURS

COURSE OUTCOMES:

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

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

CO – 2 : Explain potential workplace hazards

CO – 3 : Assess safety in workplace.

CO – 4 : Assess health risks in workplace

CO – 5 : Explain the various issues in logistics site safety.

TEXT BOOKS:

1. Fundamental principles of occupation health and safety ,Benajmin O. Alli, ILO (download ebook)
2. National policy on safety, health and environment at work place, Ministry of Labor and Employment, India
3. A guide to workplace transport safety, HSE, UK

REFERENCE BOOKS:

1. Warehousing and storage, A guide to health and safety, HSE, UK
2. Ethical Business Practices in Purchasing and Supply Management, CIPS

WEB SOURCES:

1. https://www.sap-press.com/logistics/
2. https://www.learnaboutlogistics.com/downloads/
3. http://www.scmdojo.com/7-best-logistics-management-books-read/
4. https://www.researchgate.net/publication/221251961_Safety_and_Health_Management_in_Logistics_-_Literature_Review_and_Future_Research

23EMBL18 LOGISTICS SERVICES BUSINESS DEVELOPMENT 3 0 0 3

COURSE OBJECTIVES:

- To understand the way and means of delivering products and services to customer
- To know the shipping services and logistics services for moving the product
- To handle the complexities in dealing with shipments through multiple carriers regularly
- To handle the shipment process and procedures for an enterprise
- To coordinate efficiently to ensure the product or services availability with an efficiency
- To understand the supporting infrastructure and government norm for business development
- To built strategies for logistics services as a business for its developments

UNIT I INTRODUCTION **9**

Logistics – role of logistics-stages in delivery of goods – modes of transport and its suitability-transportation process – cost, time and place-returns delivery – logistics services and its purpose – external and internal conditions – favorable and unfavorable for logistics process.

UNIT II LOGISTICS SERVICES **9**

Type-logistics and production process – impact-warehouse -cargo shipping- ships, trains, cargo handling, trucks etc, -drayage services, challenges like labour shortages, Skills- Pradhan Mantri Kaushal Vikas Yojana - demands, shipping timings-freight rates -courier shipping, -3PLto 7PL solutions

UNIT III INVENTORY PLANNING AND MANAGEMENT **9**

Procurement – Order fulfilment -production-sales logistics- last mile delivery-role of information from SRM to CRM- Quality of services and quantity of products-traceability and trackability-reliability-consumer expectation-trust transparency and industry challenges.

UNIT IV FORECASTING AND BUSINESS DEVELOPMENT **9**

Demand forecasting -7R’s of logistics services for business development-Challenges and supportive projects- role of infrastructure and technology-Integrated infrastructure programs-logistics cost-sagarmala and Bharat mala programme-krishiudan scheme

UNIT V LOGISTICS BUSINESS STRATEGY 9

Business development approach-Market Analysis-capabilities and capacities-sales and marketing gaps -logistics service providers business plan-brand management and promotion strategies-use of technology-leveraging stakeholders - partners and institutions

TOTAL: 45 HOURS

COURSE OUTCOMES:

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

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

CO – 2 : Understand the types of production systems.

CO – 3 : Explain the fundamental concepts of layout and location.

CO – 4 : Predict the demand using the different forecasting techniques.

CO – 5 : Explain the fundamental concepts of various planning.

TEXT BOOKS:

1. Doughlas W Lambert, "Fundamentals of Logistics Management, 10th Edition.2003.

REFERENCE BOOKS:

1. Pramod Rao, "Logistics Management", 11thEdition,2007.
2. John W Langford, "Logistics: Principles & Applications", 8thEdition,1995.
3. Martin Christopher, "Logistics & Supply Chain Management", 9thEdition,2010.

WEB SOURCES:

1. https://www.researchgate.net/publication/327238470_A_model_of_a_Business_Logistics_Plan
2. https://www.researchgate.net/publication/346785640_Digital_business_models_in_the_logistics_services

23EMBL19 PORT AND TERMINAL MANAGEMENT 3 0 0 3

COURSE OBJECTIVES:

- To enlighten the students about the major functions in the port and terminal management
- To expose the students on the trends in port and terminal management

UNIT – I INTRODUCTION TO PORT AND TERMINAL 9

Role of ports in international trade and transport - Economic impact of ports on the regional economy - Multiplier effect - Location characteristics of ports - Different types of ports (natural, manmade, river, estuary).

UNIT – II PORT OPERATIONS 9

Design features of facilities in ports for handling various cargoes - Organization structure in Ports - Delivery of port services and the relationship between various departments - Marine Department – Traffic Department – other departments.

UNIT – III PORT MARKETING AND SERVICES 9

Marketing of Port services - Pricing of Port services - Components of port tariff - Concept of hinterland – Identifying the needs of ship owners and operators, ship agents, forwarders, truckers, rail, and barge operators - Concept of Total Logistics cost.

UNIT – IV PORT PERFORMANCE 9

Measurement of port performance - vessel turn round time, cargo volume, speed of cargo handling - Information flow requirements of the port, statutory bodies, and port users - Port community computer systems and EDI applications.

UNIT – V PORT SECURITY AND ISSUES 9

Environmental issues connected with Ports & Terminals - Health and safety issues - Port security issues - International Ships and Port facility security (ISPS) code - Role of national, regional, and local governments in owning / operating / managing ports.

TOTAL: 45 HOURS

COURSE OUTCOMES:

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

CO – 1 : The students would be aware about skills pertaining to port and terminal management

CO – 2 The students should be able to understand the principles and applications for port and terminal management

CO – 3 : Explain the securities and issues of ports

CO – 4 : To Understand the Port marketing and Services

CO – 5 : Explain the port Performance

TEXT BOOKS:

1. Maria G. Burns, Port Management and Operations, CRC Press, 2014.
2. Patrick Alderton, Port Management and Operations, Third Edition, Lloyd's Practical Shipping Guides, 2008
3. H. Ligteringen , H. Velsink, Ports and Terminals, VSSD Publishers, 2012.
4. Coyle et.al, Management of Transportation, 7th Edition, Cengage Learning, 2011

REFERENCE BOOKS:

1. Port Industry Statistics, American Association of Port Authorities
2. Major Port Trust Act – Government of India

WEB SOURCES

- https://transportgeography.org/?page_id=8139
- http://www.harbourmaritime.com/uploads/1/2/9/8/12987200/port_management_and_operations.pdf

ELECTIVE COURSES – SUPPLY CHAIN

23EMBL20 WAREHOUSING & INVENTORY MANAGEMENT 3 0 0 3

COURSE OBJECTIVES:

- 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.

9

UNIT I INTRODUCTION TO WAREHOUSING

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.

9

UNIT IV MATERIAL REQUIREMENT PLANNING

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 AND RECENT TRENDS 9

Work-in-Process Inventories, Finished Goods & Spare Parts Inventories, Multi-Echelon Inventory Systems, Spare Parts Inventories, Use of Computers in Inventory Management.

Smart technology applications and Green concepts of purchase and storage. Evaluation of Performance of Materials Function, Criteria and methodology of evaluation.

TOTAL: 45 HOURS

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.

TEXT BOOKS:

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

REFERENCE BOOKS:

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

WEB SOURCES:

1. https://bookauthority.org/books/best-warehouse-management-ebooks
2. https://emergeapp.net/inventory-reports/10-best-inventory-management-books/

23EMBL21 GLOBAL PROCUREMENT MANAGEMENT 3 0 0 3

COURSE OBJECTIVES:

- Todevelopcountriesimportscarcerawmaterialsandcapitalgoodsandadvancedtechnology required for rapid industrial development.
- To be aware of goods in short supply are also imported to make up the deficiency.

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-ObjectivesforGlobalProcurementManagement-CulturalandSocialInfluences-International Communications-International Trade Environment

UNIT II FORECASTING 9

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

UNIT III CUSTOMS ACT 9

CustomsAct–otheractsrelatingtoexport/import–Formalitiesforcommencing–processingof exportorder–customsformalities–Exportdocumentation–roleofECGCinexportpromotion– 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. FacilitiesavailabletoEOU`S,SEZ`S,andStatusholdersdutydrawbackproceduresotherincentives.

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

rategic Sourcing: Introduction, Scope – Advantages, Objectives, Sourcing plan. Supplier evaluation, lection & development. Category buying & management process, value-to-price relationship, Supplier lationships across organization. Developing & implementing multi-year ontracts

TOTAL: 45 HOURS

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

TEXT BOOKS:

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

REFERENCE BOOKS:

1. John Wiley, "Global Operation &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.

WEB SOURCES:

1. https://www.kobo.com/us/en/ebook/procurement-and-supply-chain-management-1
2. https://libguides.kettering.edu/c.php?g=973097&p=7034276

23EMBL22 GREEN SUPPLY CHAIN MANAGEMENT 3 0 0 3

COURSE OBJECTIVES:

- 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.

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

COURSE OUTCOMES:

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

CO – 1 : Understand the Closed-loop Supply Chain.

CO – 2 : Understand the various tools of Product Eco-Design.

CO – 3 : Identify the Green Supplier Development.

CO – 4 : Illustrate the 4Re's.

CO – 5 : Illustrate the Closing the Loop: Reverse Logistics.

TEXT BOOKS:

1. Joseph Sarkis, Yijie Dou. Green Supply Chain Management: A Concise Introduction, Routledge, 2017.
2. Charisios Achilles, Dionysis D. Bochtis, Dimitrios Aidonis, Dimitris Folinas. 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 Manifes by Stuart Emmett, Wiley publications, 2010

WEB SOURCE:

1. https://www.intechopen.com/books/green-practices-and-strategies-in-supply-chain-management/introductory-chapter-introduction-of-green-supply-chain-management
2. http://eprints.lincoln.ac.uk/id/eprint/34555/1/9781315628691_preview.pdf
3. https://www.accessengineeringlibrary.com/content/book/9780071622837

23EMBL23 **VENDOR MANAGED INVENTORY** **3 0 0 3**

COURSE OBJECTIVES:

- 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 operation platforms.

UNIT I SUPPLY CHAIN MANAGEMENT 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

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 : Evaluate the efficiency of Vendor Managed Inventory.

CO – 3 : Describe operational procurement processes and be able to explain procurement

CO – 4 : Demonstrate how inventory control fits into the logistics organization.

CO – 5 : Incorporate the concepts of supply chain integration in real time business

TEXT BOOKS:

1. S Jaya Krishna, Business transformation outsourcing: An Introduction Paperback, ICFAI press 2017
2. Dominika Spychalska, 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, 2nd edition 2011.

WEB SOURCES:

1. https://www.diva-portal.org/smash/get/diva2:998528/FULLTEXT01.pdf
2. https://www.thebalancesmb.com/vendor-managed-inventory-vmi-2221270

3. https://www.tutorialspoint.com/supply_chain_management/supply_chain_management_tutorial.pdf

23EMBL24 GLOBAL SUPPLY CHAIN MANAGEMENT 3 0 0 3

COURSE OBJECTIVES:

- To gain knowledge in global logistics and risk management and to do logistics management globally.
- To understand the requirements and regulations involved in doing logistics globally.

UNIT I GLOBAL LOGISTICS 9

Introduction – Global Logistics Meaning and Definition – Global market forces – Factors Influencing Global Market Forces – Factors Influencing Technological Forces – Technological Forces – Global Cost Forces – Political and Economic Forces

UNIT II RISK MANAGEMENT 9

Introduction – Risk Management – Meaning and Definition – Many Sources of Risks – Managing the Unknown Factors – Introduction to Global Risks-Global Risks – Managing Global Risks.

UNIT III INTERNATIONAL SUPPLY CHAIN MANAGEMENT 9

Introduction to International Supply chain – Issues in International Supply Chain Management International versus Regional Product- International versus Regional Products.

UNIT IV PERFORMANCE EXPECTATION AND EVALUATION 9

Regional differences in Logistics – Cultural differences in different places – Geographic information Systems- Infrastructure – Performance Expectation and Evaluation.

UNIT V GLOBAL STRATEGY IMPLEMENTATION 9

Requirements for Global Strategy – Global Strategy implementation – Miscellaneous Dangers Information system Availability – Human Resources – role – significance.

TOTAL: 45 HOURS

COURSE OUTCOMES:

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

CO – 1 : Identify the factors influencing technological forces.

CO – 2 : Outline the management of global risks.

CO – 3 : Clarify the regional and cultural differences in logistics.

CO – 4 : Explain the global strategy implementation.

CO – 5 : Analyze the cultural risks during implementation.

TEXT BOOKS:

1. Pierre David, International Logistics: The Management of International Trade OperationsPaperback – Import, 1 Dec 2013.
2. John Mangan, Chandra Lalwani, "Global Logistics and Supply Chain Management", Tim Butcher John Wiley & Sons, 2nd Edition, 2011.

REFERENCE BOOKS:

1. David Simchi, Levi, Philip Kaminsky, Ravi Shankar, "Designing & Managing the Supply Chain", Tata McGraw Hill, 14th Edition, 2010.
2. Ross.D.F, "Competing through Supply Chain Management", Chapman & Hall, 6th Edition, 2009.
3. Woods.D,A.Barone,P.Murphy, D.Wardlow, "International logistics", Chapman & Hall, 1998.

WEB SOURCES:

1. https://www.msuniv.ac.in/Download/Pdf/2f057a4541d5465
2. https://aims.education/supply-chain-management-notes/

23EMBL25 SOURCING MANAGEMENT 3 0 0 3

COURSE OBJECTIVES:

- 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.

UNIT I INTRODUCTION 9

Sourcing – Sourcing management: Concept, Functions, Application – Supplier Evaluation and Selection (Concepts): Supplier Rating – Rating criteria – Factors

UNIT II GLOBAL SOURCING 9

Introduction to Global Sourcing – Trends in Global Sourcing – Global Sourcing – Negotiation – Performance Measurement and Evaluation (Concepts and Metalcraft Case)

UNIT III SUPPLY CHAIN 9

Supply Chain: The Role of Sourcing – Components – Key Process – Outsource: Various Mechanism – Third-party logistics (3PL): Service

UNIT IV ANALYTICAL TOOLS 9

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

COURSE OUTCOMES:

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

CO – 1 : List out the fundamental Sourcing concepts.

CO – 2 : Summarize the various Performance Measurement and Evaluation.

CO – 3 : Provide the Components of Sourcing.

CO – 4 : Use of Analytical Tools in Sourcing.

CO – 5 : Generate the new trends.

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, Operation Management strategy and analysis, 9th Edition, Pearson Eduction / Prenctice 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.

WEB SOURCE:

1. https://youngprocurement.com/wp-content/uploads/2015/06/Strategic-Purchasing-A-Global-Perspective-E-Book.pdf
2. https://collegelearners.com/ebooks/procurement-and-supply-chain-management-9th-edition-pdf/
3. https://collegelearners.com/ebooks/sourcing-and-supply-chain-management-5th-edition-pdf/

ELECTIVE COURSES – OPERATIONS

23EMBL26 LEAN SIX SIGMA 3 0 0 3

COURSE OBJECTIVES:

- 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.

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 and Kaizen

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

Evolution – TQM vs. Six Sigma – What is Six Sigma – Defects Per Million Opportunities (DPMO) – Process Sigma Level – Critical to Quality (CTQ) – Six Sigma methodologies Such as DMAIC, DFSS – Six Sigma Belts.

UNIT IV DMAIC: TOOLS AND TECHNQIUES 9

SIPOC Diagram – Voice of the Customer (VoC) – CTQ Tree – Project Charter – SevenQuality tools – Seven Management Tools – Measurement System Analysis– Failure Mode and Effects Analysis (FMEA) – Process Capability Analysis – Statistical Tools – Design of Experiments (DoE).

UNIT V LEAN SIX SIGMA 9

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

TOTAL: 45 HOURS

COURSE OUTCOMES:

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

CO – 1 : Recognize the principle and wastages of lean.

CO – 2 : Design the current and future state mapping of Value Stream Mapping (VSM)

CO – 3 : Record knowledge of the concepts of TQM and Six Sigma.

CO – 4 : Determine the DMAIC based on the implementation of tools and techniques.

CO – 5 : Record knowledge on the lean six sigma for successful implementation.

TEXT BOOKS:

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

REFERENCE BOOKS:

1. Rother, M. and Shook, J., Learning see: Value strean mapping create value and eliminate muda, The lean enterprises institute Brookline, Massachusetts, USA, 1999.
2. Liker, J., The yota Way: 14 Management Principles from the World's Greatest Manufacturer, McGraw-Hill Education, 2004.
3. Pyzdek, T. and Keller, P. A., The Six Sigma Handbook, Fourth Edition, McGraw-Hill Professional, 2014.

WEB SOURCE:

1. https://www.sixsigmacouncil.org/six-sigma-training-material/
2. https://www.sixsigmacouncil.org/wp-content/uploads/2018/08/Six-Sigma-A-Complete-Step-by-Step-Guide.pdf
3. https://www.slideshare.net/goleansixsigma/lean-six-sigma-basics
4. https://slideplayer.com/slide/5261903/

23EMBL27 PROJECT MANAGEMENT 3 0 0 3

COURSE OBJECTIVES:

- 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.

UNIT I INTRODUCTION 9

Project Vs. Operation – Project: Definition – Project Management Body of Knowledge (PMBOK®) – Project Vs. Portfolio – 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 Charter – Project Management Plan; Project Scope Management – Process of Project Scope Management – Scope Management Plan – Project Scope Statement – Work Breakdown Structure (WBS)

UNIT III SCHEDULE MANAGEMENT 9

Project Schedule Management – Process of Project Schedule Management –Schedule Management Plan – Precedence Diagramming Method (PDM) –Critical Path Method (CPM) – Program Evaluation and Review Technique (PERT) – Gantt Chart

UNIT IV COST MANAGEMENT 9

Project Cost Management – Process of Project Cost Management – Cost Management Plan – Earned Value Analysis (EVA) or Earned Value Management (EVM)

UNIT V QUALITY MANAGEMENT 9

Project Quality Management – Process of Project Quality Management: Quality Planning, Quality Management and Quality Control – Quality Management Plan – Basic Quality Tools

TOTAL: 45 HOURS

COURSE OUTCOMES:

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

CO – 1 : Identify the project parameters based on the Project Management Process.

CO – 2 : Construct the project charter.

CO – 3 : Formulate the Work Breakdown Structure (WBS).

CO – 4 : Identify the Network technique for Project Management.

CO – 5 : Evaluate the cost control using Earned Value Analysis (EVA).

TEXT BOOKS:

1. Project Management Institute. Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition, 2017.
2. Cynthia Snyder Stackpole. A Project Manager's Book of Tools and Techniques – A Companion to the PMBOK® Guide, Wiley Publications, 6th edition, 2018.

REFERENCE BOOKS:

1. James W. Marion. Project Management: A Common-Sense Guide to the Pmbok Program, Part Two-Plan and Execution, MOMENTUM Press, 2018.
2. George T. Edwards. Project Management Fundamentals: A practical overview of the PMBOK, Blue Crystal Press, 2012.
3. Cynthia Snyder Stackpole. A User's Manual to the PMBOK Guide, Wiley Publications, 5th edition, 2013.

WEB SOURCE:

1. https://projektkvalitet.dk/wp-content/uploads/the-practical-guide-to-project-management.pdf
2. https://blog.ganttpro.com/en/7-free-project-management-books-for-your-christmas-holidays/
3. http://www.opentextbooks.org.hk/system/files/export/15/15694/pdf/Project_Management_15694.pdf
4. https://www.projectsmart.co.uk/ebooks.php

23EMBL28 OPERATIONS RESEARCH APPLICATIONS 3 0 0 3

COURSE OBJECTIVES:

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

COURSE OUTCOMES:

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

CO – 1 : Analyze the applications of Dynamic programming.

CO – 2 : Evaluate Job shop in Two Machines.

CO – 3 : Analyze the applications of Project scheduling by PERT and CPM.

CO – 4 : Evaluate the Queuing System and Simulation models.

CO – 5 : Design the Branch and bound method and Vehicle Routing Problems.

TEXT BOOKS:

1. Hamdy A. Taha, Operation Research, Pearson Prentice Hall, 2003.

Singh & Kumar, Operation Research, UDH Publisher, 2013.

REFERENCE BOOKS:

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

WEB SOURCE:

1. https://www.springer.com/gp/book/9783540401384
2. https://www.kopykitab.com/Operation-Research-Theory-And-Applications-6e-by-J-K-Sharma
3. https://sites.google.com/site/dg6y5fju6y5h/p-d-f-operation-research-applications-and-algorithms-ebook-epub-kindle-by-wayne-l-winsto
4. https://www.researchgate.net/publication/317606351_Operation_research_httpbookboonco menoperation-research-ebook

23EMBL29 TOTAL QUALITY MANAGEMENT 3 0 0 3

COURSE OBJECTIVES:

- To explain the Quality concept, principles, and its various tools.
- To explain the statistical process control for the implementation of quality management.

UNIT I INTRODUCTION 9

Evolution of Quality – Quality Definition and Contributions by Deming, Juran, Crosby, Feiganbaum, Ishikawa and Taguchi – Dimensions of quality – Cost of Quality – ISO 9000

UNIT II STATISTICAL PROCESS CONTROL 9

Introduction – Pareto Analysis – Cause and Effect Diagram – Checklist or Check sheet – Process Flow Chart – Histogram – Scatter Diagram – Chance and Assignable Causes – Control Charts for Variables – Process Capability Analysis such as C_p and C_{pk}– Control Charts for Attributes.

UNIT III MANAGEMENT TOOLS 9

Introduction – Affinity Diagram [KJ method] – Interrelationship Diagram – Tree Diagram Prioritization Matrix – Matrix Diagram – Process Decision Program Chart – Activity Network Diagram

UNIT IV TOOLS AND TECHNIQUES 9

Plan-Do-Check-Act (PDCA) Cycle – Quality Circles – 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

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 : Calculate the Process Capability.

CO – 4 : Record knowledge on the various techniques of quality management.

CO – 5 : Assemble the implementation of SPC tools using Six Sigma methodologies.

TEXT BOOKS:

1. Besterfiled, 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.

WEB SOURCE:

1. https://easyengineering.net/total-quality-management-books-collections/
2. https://www.researchgate.net/publication/344826139_A_TEXTBOOK_ON_TOTAL_QUALITY_MANAGEMENT
3. https://book.akij.net/eBooks/2018/January/5a6db3abccd78/Total%20Quality%20Management%20and%20Operational%20Excellence.pdf
4. https://link.springer.com/content/pdf/bfm%3A978-1-4615-5281-9%2F1.pdf

23EMBL30 WORLD CLASS MANUFACTURING 3 0 0 3

COURSE OBJECTIVES:

- 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.

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

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 : Clarify the JIT and Kanban system.

CO – 3 : Describe on the concepts of quality definition based on the TQM and ISO system.

CO – 4 : Analyze the failure for maintenance using reliability.

CO – 5 : Evaluate the layout based on cellular manufacturing.

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 operation management, Pearson education (Singapore) P.Ltd

WEB SOURCE:

1. https://www.studynama.com/community/threads/world-class-manufacturing-pdf-lecture-notes-ebook-download-for-mba-students.394/
2. https://www.researchgate.net/publication/298627777_Worldclass_manufacturing_The_next_decade
3. https://pdf-2516.firebaseapp.com/world-class-manufacturing-just-in-time-with-total-quality-control-the-lessons-learned-to-date-institute-workbook-by-richard-j-schonberg.pdf
4. https://www.bly.com/newsite/Pages/PDFs/manufacturing-world-class.pdf

23EMBL31 BEHAVIOURAL OPERATIONS MANAGEMENT 3 0 0 3

COURSE OBJECTIVES:

- To understand the Behavioral concepts in Operation Management
- To learn about the Behavioral concepts in production and service context.

UNIT I INTRODUCTION 9

Behavioural Operation 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

COURSE OUTCOMES:

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

CO – 1 : Matching the fundamental production in Behavioural concepts.

CO – 2 : Carrying out the Process Constraints and Variability

CO – 3 : Discriminating the Process and Perception.

CO – 4 : Monitoring the implementation of Supply Chain.

CO – 5 : Evaluate the Dynamic Pricing and Impulsiveness of emotions.

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.

WEB SOURCE:

1. https://www.researchgate.net/publication/267270770_Handbook_of_Behavioral_Operations_Management_wwwombehaviorcom
2. https://www.researchgate.net/publication/336158837_Behavioral_Operations_Management_A_Review_of_the_Field
3. https://www.springer.com/gp/book/9781447148777

23EMBL32 MANAGEMENT OF MANUFACTURING SYSTEMS 3 0 0 3

COURSE OBJECTIVES:

- 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.

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

COURSE OUTCOMES:

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

CO – 1 : Translating the types of Manufacturing system.

CO – 2 : Identify the Various methodologies

CO – 3 : Focusing the Group Technology (GT).

CO – 4 : Selecting the Flexible Manufacturing System (FMS).

CO – 5 : Describe the Flexibility.

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

WEB SOURCE:

1. http://www.mescenter.ru/images/abook_file/ManufacturingSystems.pdf
2. https://www.springer.com/gp/book/9781475722130

23EMBL33 OPERATIONS STRATEGY 3 0 0 3

COURSE OBJECTIVES:

- 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

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

Capacity Strategy: Levels of capacity decision, Factors influencing the overall level of capacity, Location of capacity – Purchasing and Supply Strategy: Supply Networks, Do (Make) or Buy? the vertical integration decision.

UNIT V DECISION AREAS – II 9

Process Technology Strategy: Classification, Three dimensions of process technology – Improvement Strategy: Breakthrough Improvement and Continuous Improvement, The Importance – Performance Matrix

TOTAL: 45 HOURS

COURSE OUTCOMES:

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

CO – 1 : Parsing the concepts of strategy.

CO – 2 : Understand the process of operations strategy.

CO – 3 : Using the Product/Service Life Cycle on Performance Objectives.

CO – 4 : coordinating the Total Quality Management (TQM) fit into Operations Strategy.

CO – 5 : Constructing the decision areas of PSS, PT and Improvement Strategy.

TEXT BOOKS:

1. Nigel Slack, Michael Lewis, MohitaGangwar Sharma. Operations Strategy,Pearson Education Limited, England, 5th edition, 2018.

REFERENCE BOOKS:

1. David Walters. Operations Strategy, Palgrave Macmillan Publisher, 2015.
2. JA Van Mieghem and Gad Allon. Operations Strategy: Practices and Principles, Dynamic Ideas LLC 2nd edition, 2015.

WEB SOURCES:

1. http://www.mim.ac.mw/books/Operations%20Strategy%203rd%20edition.pdf
2. https://bookboon.com/en/operations-strategy-ebook
3. https://my.uopeople.edu/pluginfile.php/57436/mod_book/chapter/121631/BUS5116.James.Ops.Strat.pdf
4. https://www.yumpu.com/en/document/view/64315404/download-pdf-operations-strategy-5th-edition-full-audiobook

23EMBL34 SERVICES OPERATIONS MANAGEMENT 3 0 0 3

COURSE OBJECTIVES:

- 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 capcity for services

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

CO – 1 : Understand the Classification of services.

CO – 2 : Predict the Design elements of services.

CO – 3 : Carryout the Total Quality Management (TQM) fit into service management.

CO – 4 : Integrate the Techniques of Facility Location.

CO – 5 : Designing the Techniques of Forecasting Demand and SIM.

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.

WEB SOURCE:

1. https://www.freebookcentre.net/business-books-download/Services-Operations-Management.html
2. https://www.researchgate.net/publication/229667633_Service_Operations_and_Management
3. https://www.researchgate.net/publication/336320235_LATEST_BOOK_2020_Service_Operations_Management_A_Strategic_Perspective

ELECTIVE COURSES – ENTREPRENEURSHIP

23EMBL35 BUSINESS POLICY & STRATEGY 3 0 0 3

COURSE OBJECTIVES:

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

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

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 : Demonstrate explaining of the concept of competitive advantage and its sources.

CO – 3 : Analyze dynamics in competitive rivalry, including competitive action.

CO – 4 : Demonstrate the ability to think critically in relation to a particular problem.

CO – 5 : Recognize strategic decisions that present ethical challenges.

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.

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.

WEB SOURCES:

1. https://www.academia.edu/5535061/BUSINESS_POLICY_AND_STRATEGIC_MANAGEMENT
2. https://www.academia.edu/38756123/Business_Policy_and_Strategic_Management
3. https://www.researchgate.net/publication/236694166_BUSINESS_POLICY_AND_CORPORATE_STRATEGY

23EMBL36 E-BUSINESS 3 0 0 3

COURSE OBJECTIVES:

- 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.

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

E-payments - Characteristics of payment of systems, protocols, e-cash, e-cheque and Micro payment systems- internet security – cryptography – security protocols – network security.

UNIT V LEGAL AND PRIVACY ISSUES 9

Legal, Ethics and privacy issues – Protection needs and methodology – consumer protection, cyber laws, contracts and warranties, Taxation and encryption policies.

TOTAL: 45 HOURS

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

CO – 3 : Employ tools and services of the internet in the development of a virtual e-commerce.

CO – 4 : Describe the various characteristics of electronic payment systems.

CO – 5 : Discuss various legal and ethical issues specific to E-Business.

TEXT BOOKS:

1. Harvey M.Deitel, Paul J.Deitel, Kate Steinbuhler, e-business and e-commerce for managers, Pearson, 2011
2. ParagKulkarni, SunitaJahirabadkao, PradeepChande, e business, Oxford University Press, 2012.
3. Hentry Chan &el , E-Commerce – fundamentals and Applications, Wiley India Pvt Ltd, 2007.

REFERENCE BOOKS:

1. Gary P. Schneider, Electronic commerce, Thomson course technology, Fourth annual edition, 2007
2. Bharat Bhasker, Electronic Commerce – Frame work technologies and Applications, 3rd Edition. Tata McGrawHill Publications, 2009
3. KamleshK.Bajaj and Debjani Nag, Ecommerce- the cutting edge of Business, Tata McGrawHill Publications, 7th reprint, 2009

WEB SOURCES:

1. https://irp-cdn.multiscreensite.com/1c74f035/files/uploaded/introduction-to-e-commerce.pdf
2. https://examupdates.in/e-commerce-book/
3. https://ebooks.lpude.in/computer_application/msc_it/term_3/DCAP306_DCAP511_E-COMMERCE_AND_E-BUSINESS.pdf
4. http://kolegjifama.eu/materialet/Biblioteka%20Elektronike/Introduction%20to%20e-Business%20Management%20and%20Strategy.pdf
5. http://www.vssut.ac.in/lecture_notes/lecture1428551057.pdf

ELECTIVE COURSES –ANALYTICS

23EMBL37 BUSINESS ANALYTICS FOR MANAGERS 3 0 0 3

COURSE OBJECTIVES:

- To provide foundational knowledge associated with the domain of business analytics.
- To familiarize the students with all concepts including Business Intelligence, Regression, Optimization Techniques and Simulation

UNIT I BUSINESS ANALYTICS 9

Introduction – Evolution – Types of Analytics – Modeling and Models – Decision Making – Tools – Framework – Applications

UNIT II DESCRIPTIVE ANALYTICS 9

Introduction – Data, Information and Knowledge – Business Intelligence – Data Warehouse – Dashboard – Reporting – Data Visualization – Descriptive Statistics

UNIT III PREDICTIVE ANALYTICS 9

Introduction – Regression – Time Series Analysis and Forecasting – Statistics Vs Data Mining – Data Mining – Data Mining Tasks (Descriptive, Predictive)–Learning methods (Unsupervised, Supervised)– Simulation

UNIT IV PRESCRIPTIVE ANALYTICS 9

Introduction – Optimization – Classification of optimization problems – Operations Research Techniques for Analytics – Mathematical Model – Linear programming – Transportation Problems

UNIT V SOFTWARE 9

Software such as Excel, R, Python, SPSS, Tableau and SAS – Applications of Analytics Such as Descriptive, Predictive and Prescriptive using spread modelling such as Excel

TOTAL: 45 HOURS

COURSE OUTCOMES:

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

CO – 1 : Explain the different types of Analytics.

CO – 2 : Understand the decision-making models for Analytics.

CO – 3 : Understand the Business Intelligence.

CO – 4 : Explain the tools of Descriptive Analytics.

CO – 5 : Explain the regression models.

TEXT BOOKS:

1. S. Christian Albright and Wayne L. Winston, Business Analytics: Data Analysis and Decision Making, Cengage Learning Publication, 5th Edition, 2011
2. JamesR.Evans.,Business Analytics–Methods, Models and Decisions, Pearson Publications, 1st Edition, 2012.
3. Ramesh Sharda, DursunDelen, Efraim Turban, Business Intelligence and Analytics– Systems for Decision Support, Pearson, 10th Edition, 2014.

REFERENCE BOOKS:

1. Carlo Vercellis, Business Intelligence: Data Mining and Optimization for DecisionMaking, John Wiley & Sons Ltd., 2009.
2. Taha Hamdy. Operation Research -An Introduction, Prentice-Hall, 9th edition,2012.
3. Banks, J., Carson, J. S. and Nelson, B. L. , Discrete Event System Simulation, 4th edition, Pearson Education Asia,2006.

WEB SOURCES:

1. https://www.slideshare.net/Jigneshkariya/business-analytics-143047001
2. https://slideplayer.com/slide/5684284/

23EMBL38 **HR ANALYTICS** **3 0 0 3**

COURSE OBJECTIVES:

- To understand the concepts, tools and techniques of HR Analytics that could be applied to make human applied as resource management evidence based.
- To understand HR reports & to understand the decisions technologies.
- Recognize the fundamental strategic priorities of the business and learn how to provide enhanced decision support leveraging analytics

UNIT I INTRODUCTION TO HR ANALYTICS 9

HR analytics in Perspective: Basics of HR Analytics: Concept and Evolution of HR Analytics-Defining HR Analytics. Use of workforce to improve decision making. Analytics and Prediction. Introduction to HR Metrics and predictive analytics. Importance of HR Analytics. Data Analytics techniques using software packages. Future of Human Resource Analytics.HR Metrics and HR Analytics; Intuition versus analytical thinking.

UNIT II HR METRICS 9

Creating business understanding for HR initiatives: Workforce segmentation and search for critical job roles; Statistical driver analysis – association and causation; Linking HR measures to business results; choosing the right measures for scorecards; Identifying and using key HR Metrics.

UNIT III HR COSTS 9

Forecasting budget numbers for HR costs: Workforce planning including internal mobility and career pathing; training and development requirement forecasting and measuring the value and results of improvement initiatives; optimizing selection and promotion decisions

UNIT IV PREDICTIVE MODELLING 9

Predictive modelling in HR: Employee retention and turnover; workforce productivity and performance; scenario planning.

UNIT V HR DATA 9

Communicating with data and visuals: Data requirements; identifying data needs and gathering data; HR data quality, validity and consistency; Using historical data; Data exploration; Data visualization; Association between variables; Insights from reports; Root cause analysis of HR issues

TOTAL: 45 HOURS

COURSE OUTCOMES:

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

CO – 1 : Analyse appropriate internal and external human resource metrics.

CO – 2 : Recommend regarding the appropriate HRIS to meet organization's human resource.

CO – 3 : Employ appropriate software to record, maintain and retrieve.

CO – 4 : Apply quantitative and qualitative analysis to understand trends and indicators.

CO – 5 : Manage information technology to enhance the efficiency and effectiveness.

TEXT BOOKS:

1. Jac Fitz-Enz , The New HR Analytics: Predicting the Economic Value of Your Company's Human Capital Investments, Amazon.
2. Gene Pease, Boyce Byerly and Jac Fitz-enz, Human Capital Analytics: How to Harness the Potential of Your Organization's Greatest Asset, John Wiley & Sons

REFERENCE BOOKS:

1. The New HR Analytics: Predicting the Economic Value of Your Companys Human Capital Investments: Predicting the Economic Value of Your Company's Human Capital Investments Hardcover – Import, 1 Jun 2010, Jacfitz-Enz

WEBSITES:

- https://www.coursera.org/learn/human-resources-analytics.
- https://www.aihr.com/blog/what-is-hr-analytics/

WEB SOURCES:

- https://www.toolbox.com/hr/hr-analytics/articles/what-is-hr-analytics/#_001.
- https://www.valamis.com/hub/hr-analytics.

MARKETING AND RETAIL ANALYTICS 3 0 0 3

23EMBL39

COURSE OBJECTIVES:

- To create an understanding of the use of analytics in Marketing and Retail Management.
- To use the predictive analysis in decision making.

UNIT I Introduction To Marketing Analytics 9

Introduction to Marketing Analytics - Meaning, characteristics, advantages and disadvantages of marketing analytics, Marketing Engeering - Types of Models - Market Data Sources (Primary and Secondary). Market Sizing: Stakeholders, Applications & Approaches (Top-down and Bottom-up), PESTLE Market Analysis, Porter Five Force Analysis

UNIT II Customer Analytics: 9

Customer Analytics: Customer Lifetime Value: Concept, Basic Customer Value, Measuring Customer Lifetime value, Estimating Chance that customer is still active, Using Customer Value to value a business Market Segmentation : The segmentation-targeting-positioning (STP) framework, Segmentation, The concept of market segmentation, managing the segmentation process, Deriving market segments and describing the segments using Cluster analysis, Market Basket Analysis.

UNIT III Introduction: Marketing decisions as interventions 9

Introduction: Marketing decisions as interventions Types of data relevant to marketing. Purpose-built data and data exhaust. Ways to use data, from generating ideas to automating decisions. Modeling interventions on your customers and potential customers. Gaps between data and marketing decisions. Metrics.

UNIT IV Retail Analytics – I 9

Customer Analytics Overview; Quantifying Customer Value.customer lifetime value & ROI Customer lifetime value, choosing metrics, KPIs, and proxies.

Predicting Response with RFM Analysis, Statistics Review, Predicting Response with Log istic Regression, Predicting Response with Decision Trees .

UNIT V Retail Analytics – II 9

The digital evolution of retail marketing, Digital natives, Constant connectivity social interacti on, Predictive modelling, Keeping track, Data availability, Efficiency optimization.

TOTAL: 45 HOURS

COURSE OUTCOMES:

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

CO – 1 : To understand the market place and the changing consumer needs.

CO – 2 : To identify various methods followed build CRM practices.

CO – 3 : To recognize the various segments for a product.

CO – 4 : To identify the various positioning strategies followed by the companies.

CO – 5 : To compare and contrast products and services.

TEXT BOOKS:

1. Kotler, P., Keller, K. L. ,Koshy, A., Jha, M. Marketing Management: A South AsianPerspective. New Delhi: Pearson Education , 14th edn,.2013
2. Rajan, S. Marketing Management. India: New Delhi: Tata McGraw-Hill Education. 4th edition,2005.

REFERENCE BOOKS:

3. Karunakaran, K..Marketing Management. New Delhi: Himalaya Publishing House. 3rd edition, 2013
4. Kumar, A., Meenakshi. Marketing Management. New Delhi: Vikas Publishing House Pvt

Ltd. , 2nd edition,2013

5. Ramaswamy, V. S., Namakumari, S. Marketing Management Global Perspective, Indian Context. New Delhi: Macmillan India Limited. 3rd edition, 2009

WEBSITES:

1. https://www.greatlearning.in/academy/learn-for-free/courses/marketing-retail-analytics-advanced.
2. https://www.sas.com/en_in/training/offers/free-training.html.

WEB SOURCES:

1. https://monkeylearn.com/data-mining-tools/
2. https://www.geeksforgeeks.org/data-transformation-in-data-mining/

SEMESTER IV

23CMBL41 UNIVERSAL HUMAN VALUES 3003

COURSE OBJECTIVES:

- To help students distinguish between values and skills, and understand the need, basic guidelines, content and process of value education.
- To help students initiate a process of dialog within themselves to know what they 'really want to be' in their life and profession
- To help students understand the meaning of happiness and prosperity for a human being.
- To facilitate the students to understand harmony at all the levels of human living, and live accordingly.
- To facilitate the students in applying the understanding of harmony in existence in their profession and lead an ethical life

UNIT I 9

Understanding the need, basic guidelines, content and process for Value Education, Self-Exploration–what is it? - its content and process; 'Natural Acceptance' and Experiential Validation- as the mechanism for self-exploration, Continuous Happiness and Prosperity- A look at basic Human Aspirations, Right understanding, Relationship and Physical Facilities- the basic requirements for fulfilment of aspirations of every human being with their correct priority, Understanding Happiness and Prosperity correctly- A critical appraisal of the current scenario, Method to fulfil the above human aspirations: understanding and living in harmony at various levels.

UNIT II 9

Understanding human being as a co-existence of the sentient 'I' and the material 'Body', Understanding the needs of Self ('I') and 'Body' - Sukh and Suvidha, Understanding the Body as an instrument of 'I' (I being the doer, seer and enjoyer), Understanding the characteristics and activities of 'I' and harmony in 'I', Understanding the harmony of I with the Body: Sanyam and Swasthya; correct appraisal of Physical needs, meaning of Prosperity in detail, Programs to ensure Sanyam and Swasthya.

UNIT III **9**

Understanding harmony in the Family- the basic unit of human interaction , Understanding values in human-human relationship; meaning of Nyaya and program for its fulfilment to ensure Ubhay-tripti; Trust (Vishwas) and Respect (Samman) as the foundational values of relationship, Understanding the meaning of Vishwas; Difference between intention and competence, Understanding the meaning of Samman, Difference between respect and differentiation; the other salient values in relationship, Understanding the harmony in the society (society being an extension of family): Samadhan, Samridhi, Abhay, Sah-astitva as comprehensive Human Goals, Visualizing a universal harmonious order in societyUndivided Society (AkhandSamaj), Universal Order (SarvabhaumVyawastha) - from family to world family!.

UNIT IV **9**

Understanding the harmony in the Nature, Interconnectedness and mutual fulfilment among the four orders of nature- recyclability and self-regulation in nature, Understanding Existence as Co-existence (Sah-astitva) of mutually interacting units in all-pervasive space, Holistic perception of harmony at all levels of existence.

UNIT V **9**

Implications of the above Holistic Understanding of Harmony on Professional Ethics Natural acceptance of human values, Definitiveness of Ethical Human Conduct, Basis for Humanistic Education, Humanistic Constitution and Humanistic Universal Order. Competence in Professional Ethics:

TOTAL HOURS: 45

COURSE OUTCOME:

CO – 1: Understand the significance of value inputs in a classroom, distinguish between values and skills, understand the need, basic guidelines, content and process of value education, explore the meaning of happiness and prosperity and do a correct appraisal of the current scenario in the society

CO – 2: Differentiate between the Self and the Body, understand the meaning of Harmony in the Self the Coexistence of Self and Body.

CO – 3: Evaluate the value of harmonious relationship based on trust, respect and other naturally acceptable feelings in human-human relationships and explore their role in ensuring a harmonious society

CO – 4: Reflect the harmony in nature and existence, and work out their mutually fulfilling participation in nature.

CO – 5: Distinguish between ethical and unethical practices, and start working out the strategy to actualize a harmonious environment wherever they work.

TEXT BOOKS:

1. R R Gaur, R Sangal, G P Bagaria, 2009, A Foundation Course in Human Values and Professional Ethics.
2. Ivan Illich, 1974, Energy & Equity, The Trinity Press, Worcester, and Harper Collins, USA.
3. E.F. Schumacher, 1973, Small is Beautiful: a study of economics as if people mattered, Blond & Briggs, Britain.

REFERENCE BOOKS:

1. Sussan George, 1976, How the Other Half Dies, Penguin Press. Reprinted 1986, 1991.
2. Donella H. Meadows, Dennis L. Meadows, Jorgen Randers, William W. Behrens III, 1972, Limits to Growth-Club of Rome's report, Universe Books.
3. A Nagraj, 1998, Jeevan Vidya EkParichay, Divya Path Sansthan, Amarkantak.
4. P L Dhar, RR Gaur, 1990, Science and Humanism, Common wealth Publishers.
5. A N Tripathy, 2003, Human Values, New Age International Publishers.
6. Subhas Palekar, 2000, How to practice Natural Farming, Pracheen (Vaidik) KrishiTantraShodh, Amravati.
7. E G Seebauer& Robert L. Berry, 2000, Fundamentals of Ethics for Scientists & Engineers, Oxford University Press.
8. M Govindrajran, S Natrajan& V.S. Senthil Kumar, Engineering Ethics (including Human Values), Eastern Economy Edition, Prentice Hall of India Ltd.
9. B P Banerjee, 2005, Foundations of Ethics and Management, Excel Books.
10. B L Bajpai, 2004, Indian Ethos and Modern Management, New Royal Book Co., Lucknow. Reprinted 2008.

WEB SOURCES:

- https://lecturenotes.in/notes/27764-note-for-human-values-and-professional-ethics-2-hvpe-2-by-indrajeet-verma

WEBSITES:

- https://nptel.ac.in/courses/109/104/109104068/

23RMBL41 **PROJECT WORK** **0 0 20 10**

PROJECT OBJECTIVES

- Its aim is to demonstrate the skills and knowledge that students have acquired in their studies
- The Aim of the final year project is to develop student's knowledge for solving societal problem.
- It enables students to develop problem solving, analysis, synthesis and evaluation skills.

PROJECT OUTCOMES:

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

CO – 1 : Create and develop deep understanding of the interaction.

CO – 2 : Analyze and solve problems on an executive level and demonstrating critical.

CO – 3 : Design the general (core) management skills in the chosen area of specialization.

CO – 4 : Design strategies to solve business problems and pursue opportunities.

CO – 5 : Interpret a variety of ways to engage in experiential learning.