



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 25 Years Successfully*

# **MBA (LOGISTICS AND SUPPLY CHAIN MANAGEMENT)**

## **Curriculum and Syllabus Regulations 2021**

**(Based on Choice Based Credit System (CBCS))**

**Effective from the Academic year  
2021-2022**

**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**

- To provide an affordable opportunity for diverse group of students and other stakeholders to learn by synergizing education, research, innovation and outreach efforts.
- To inculcate self-discipline, values, ethics and devotion to duty among the students to make them good citizens, leaders, professionals & entrepreneurs.
- To develop the future business leaders through imparting high quality of analytical ability & decision-making capability.
- To offer exposure to global business standards and inculcate strategic management aspiration.

### **Program Educational Objectives (PEOs)**

PEO 1: To provide best quality of education and prepare the students to meet global standards and competitive environment

PEO 2: To inculcate team spirit and leadership capabilities among students to develop business leaders attain organizational development

PEO 3: To impart ethical and moral values to create better citizens and society

PEO 4: To develop entrepreneurial skills to think strategically and encourage them to become entrepreneurs

PEO 5: To motivate students to participate in community development and undertake 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 supply chain management principles to integrated supply chain activities to articulate and deliver customer-oriented quality outcomes within legal and ethical frameworks.

PSO 2: Develop operations to source and utilise appropriate technology to support the implementation of logistics strategies and manage logistics resources to improve supply chain operations.

PSO 3: Utilize state-of-the-art distribution practices to implement strategic and operational concepts and techniques that underpin distribution of goods and services for domestic and international markets.

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

S.NO	NAME & ADDRESS	DESIGNATION
1.	<b>Dr. P. R. Ramakrishnan</b> Dean School of Management Studies & Commerce VISTAS	Chairperson
2.	<b>Dr. R. Magesh</b> Professor and Head Department of Management Studies Anna University	External Expert
3.	<b>Ms. Sindhuja Santhosh</b> Head, Customer Success Team Zoho Books, Zoho Corporation Chennai	Industry Expert
4.	<b>Ms. Anitharaj Johnes George</b> Senior Talent Acquisition Analyst SPI global Pondicherry	Alumni
5.	<b>Dr. S. Preetha</b> School of Management Studies, VISTAS	Professor
6.	<b>Dr. S. Vasantha</b> School of Management Studies, VISTAS	Professor
7.	<b>Dr. G. Rajini</b> School of Management Studies, VISTAS	Professor
8.	<b>Dr. P. Shalini</b> School of Management Studies, VISTAS	Professor
9.	<b>Dr. P. G. Thirumagal</b> School of Management Studies, VISTAS	Professor
10.	<b>Dr. A. Mohammed Faisal</b> School of Management Studies, VISTAS	Assistant Professor

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

**CHOICE BASED CREDIT SYSTEM (CBCS)**

**MBA (LOGISTICS AND SUPPLY CHAIN MANAGEMENT) – REGULATIONS**

**2021**

**(Applicable to all the candidates admitted from the academic year 2021-22 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 26 out of which 13 shall be compulsory subjects and of the remaining 10 will be Electives, MOOC, Internship after Second semester and Project Work in the Final Semester with a Viva-voce.

The FULL-TIME candidates shall take 8 subjects (7 Core Theory + 1 Practical) in the First semester, 8 subjects (3 Core Theory + 4 Elective Theory) along with Summer internship in the Second Semester, 9 subjects (2 Core Theory + 7 Elective Theory) in the Third Semester and 1 subject (Core Theory) and a Project Work in the Fourth Semester.

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

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

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 VC 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	: 4 out 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-totalling: All PG Students who appeared for their Semester Examinations are eligible for applying for re-totalling 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.

e) CGPA 4.00 to 4.99 shall be declared to have passed the examination in the **THIRD** Class.

**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: =  $\frac{\sum_i C_i G_i}{\sum_i C_i}$  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,  $C_i$  = Credits earned for course  $i$  in any semester,

$G_i$  = Grade Points obtained for course  $i$  in any semester

$n$  = Semester in which such courses were credited.

CGPA for the entire programme: =  $\frac{\sum_n \sum_i C_{ni} G_{ni}}{\sum_n \sum_i C_{ni}}$  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

<b>Overall Performance - PG</b>
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<b>Grade Conversion Table - PG</b>				
<b>Range of Marks</b>	<b>Grade Points</b>	<b>Letter Grade</b>	<b>Description</b>	
90 - 100	10	O	Outstanding	
82 - 89	9	A+	Excellent	
75 - 81	8	A	Very Good	
67 - 74	7	B+	Good	
60 - 66	6	B	Above Average	
50 - 59	5	C	Average	
40 - 49	4	D	Minimum for pass	
0 - 39	0	RA	Reappear	
		AAA	Absent	
<b>CGPA</b>		<b>GRADE</b>	<b>CLASS</b>	
4.00 - 4.99		D	Third Class	

5.00 - 5.99	C	Second Class
6.00 - 6.69	B	First Class
6.70 - 7.49	B+	
7.50 - 8.19	A	First Class with Distinction*
8.20 - 8.99	A+	
9.00 - 10.00	O	First Class - Outstanding*

#### **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**

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.

**Overall credit distribution / Course Components with credits**

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	<b>29</b>
			1 Practical (MOOC)	1	1	1	
2	II	8	3 Core Theory + 3 Elective Theory	4	6	24	<b>33</b>
			1 Elective Theory	3	1	3	
			1 Internship	6	1	6	
3	III	8	2 Core Theory	4	2	8	<b>26</b>
			6 Elective Theory	3	6	18	
4	IV	2	1 Core	4	1	4	<b>14</b>
			1 Project	10	1	10	
						<b>Total</b>	<b>102</b>

**MBA (LOGISTICS AND SUPPLY CHAIN MANAGEMENT) – REGULATIONS 2021**

**SEMESTER I**

Code	Course	Hour / Week			C	Maximum Marks		
		L	T	P		CA	SEE	Total
21CMBS11	Management Principles and Organizational Behaviour	4	0	0	4	40	60	100
21CMBS12	Business Statistics & Quantitative Techniques	4	0	0	4	40	60	100
21CMBS13	Managerial Economics	4	0	0	4	40	60	100
21CMBS14	Financial Reporting, Statements & Analysis	3	1	0	4	40	60	100
21CMBS15	Legal & Business Environment	4	0	0	4	40	60	100
21CMBS16	Business Communication & Soft Skills	4	0	0	4	40	60	100
21CMBS17	Computer Applications for Business	4	0	0	4	40	60	100
21PMBS11	Community Development Project / MOOC / Outbound Experiential Learning Programme	0	0	2	1	40	60	100
		<b>27</b>	<b>1</b>	<b>2</b>	<b>29</b>			

**SEMESTER II**

Code	Course	Hour / Week			C	Maximum Marks		
		L	T	P		CA	SEE	Total
21CMBS21	Human Resources Management	4	0	0	4	40	60	100
21CMBS22	Marketing Management	4	0	0	4	40	60	100
21CMBS23	Operations Management	4	0	0	4	40	60	100
21CMBS....	Elective I	4	0	0	4	40	60	100
21CMBS....	Elective II	4	0	0	4	40	60	100
21CMBS....	Elective III	4	0	0	4	40	60	100
21CMBS....	Elective IV	3	0	0	3	40	60	100
21IMBS21	Internship	0	0	12	6	40	60	100
		<b>27</b>	<b>0</b>	<b>12</b>	<b>33</b>			

**SEMESTER III**

Code	Course	Hour / Week			C	Maximum Marks		
		L	T	P		CA	SEE	Total
21CMBS31	Business Analytics	4	0	0	4	40	60	100
21CMBS32	Research Methodology	4	0	0	4	40	60	100
21EMBS....	Elective V	3	0	0	3	40	60	100
21EMBS....	Elective VI	3	0	0	3	40	60	100
21EMBS....	Elective VII	3	0	0	3	40	60	100
21EMBS....	Elective VIII	3	0	0	3	40	60	100
21EMBS....	Elective IX	3	0	0	3	40	60	100
21EMBS....	Elective X	3	0	0	3	40	60	100
		26	0	0	26			

**SEMESTER IV**

Code	Course	Hour / Week			C	Maximum Marks		
		L	T	P		CA	SEE	Total
21CMBS41	Universal Human Values	4	0	0	4	40	60	100
21RMBS41	Project	0	0	20	10	100	200	300
		4	0	20	14			

**TOTAL CREDITS: 102**

## LIST OF COURSES

### CORE COURSES

Semester	Code	Course	Hour / Week			Credits
			Lecture	Tutorial	Practical	
I	21CMBS11	Management Principles and Organizational Behaviour	4	0	0	4
I	21CMBS12	Business Statistics & Quantitative Techniques	4	0	0	4
I	21CMBS13	Managerial Economics	4	0	0	4
I	21CMBS14	Financial Reporting, Statements & Analysis	3	1	0	4
I	21CMBS15	Legal & Business Environment	4	0	0	4
I	21CMBS16	Business Communication & Soft Skills	4	0	0	4
I	21CMBS17	Computer Applications for Business	4	0	0	4
II	21CMBS21	Human Resources Management	4	0	0	4
II	21CMBS22	Marketing Management	4	0	0	4
II	21CMBS23	Operations Management	4	0	0	4
III	21CMBS31	Business Analytics	4	0	0	4
III	21CMBS32	Research Methodology	4	0	0	4
IV	21CMBS41	Universal Human Values	4	0	0	4

### ELECTIVE COURSES

Semester	Code	Course	Hour / Week			Credits
			Lecture	Tutorial	Practical	
II	21EMBS	Elective I	4	0	0	4
II	21EMBS	Elective II	4	0	0	4
II	21EMBS	Elective III	4	0	0	4
II	21EMBS	Elective IV	3	0	0	3
III	21EMBS	Elective V	3	0	0	3
III	21EMBS	Elective VI	3	0	0	3
III	21EMBS	Elective VII	3	0	0	3
III	21EMBS	Elective VIII	3	0	0	3



III	21EMBS	Elective IX	3	0	0	3
III	21EMBS	Elective X	3	0	0	3

### ELECTIVE COURSES – II SEMESTER

FUNCTIONAL AREA	CODE	COURSES
Supply Chain	21EMBS21	Supply Chain Information System
	21EMBS22	Supply Chain Concepts & Planning
	21EMBS25	Global SCM
	21EMBS26	Vendor Managed Inventory
	21EMBS27	SCM for Services Marketing
Logistics	21EMBS23	Logistics Concepts & Planning
	21EMBS24	Transportation & Distribution Management
	21EMBS28	Air Cargo Management
	21EMBS29	Multimodal Transportation Management
	21EMBS30	Inland Waterways Management

### ELECTIVE COURSES – III SEMESTER

FUNCTIONAL AREA	CODE	COURSES
Logistics & Supply Chain	21EMBS31	International Logistics
	21EMBS32	Purchasing and Strategic Sourcing
	21EMBS33	Warehousing and Distribution Facilities Management
	21EMBS34	Contract Logistics and Closed Loop Supply chains
	21EMBS35	Logistics & Supply Chain Performance Management
	21EMBS36	Green Supply Chain Management
	21EMBS37	Supply Chain Analytics
	21EMBS38	Sourcing Management
Operations	21EMBS39	Lean Six Sigma
	21EMBS40	Project Management
	21EMBS41	Operations Research Applications
	21EMBS42	Total Quality Management
	21EMBS43	World Class Manufacturing
	21EMBS44	Behavioural Operations Management
	21EMBS45	Management of Manufacturing Systems
	21EMBS46	Operations Strategy
	21EMBS47	Services Operations Management
Entrepreneurship	21EMBS48	Environmental Studies
	21EMBS49	Indian Ethos and Business Ethics
	21EMBS50	Business Policy & Strategy
	21EMBS51	E-Business

### PRACTICAL COURSES

Semester	Code	Course	Hour / Week			Credits
			Lecture	Tutorial	Practical	
I	21PMBS11	MOOC	0	0	2	1
II	21IMBS21	Internship	0	0	12	6
IV	21RMBS41	Project	0	0	20	10

# **SEMESTER I**

**COURSE OBJECTIVE: (Employability)**

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

**UNIT I INTRODUCTION TO MANAGEMENT 12**

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

**UNIT II INDIVIDUAL PROCESS IN ORGANIZATIONS 12**

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

**UNIT III INTERPERSONAL PROCESS IN ORGANIZATIONS 12**

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

**UNIT IV ORGANISATIONAL PROCESS 12**

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

**UNIT V ORGANIZATIONAL DEVELOPMENT 12**

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

**TOTAL: 60 HOURS**

## **COURSE OUTCOMES:**

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

- CO – 1 : Assess the **fundamentals of organizational behavior** and OB Model
- CO – 2 : Analyze the behavior of **individuals and groups** in organizations
- CO – 3 : Describe the concept of **leadership, communication, power and conflict resolution**
- CO – 4 : Demonstrate the **dynamics of organizational change**.
- CO – 5 : Identify the major issues in **business ethics and corporate social responsibility**.

## **TEXT BOOKS:**

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

## **REFERENCE BOOKS:**

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

## **WEB SOURCES:**

1. <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>.
2. <https://courses.lumenlearning.com/wmopen-organizationalbehavior/chapter/management-theory-and-organizational-behavior/>
3. <https://online.nwmissouri.edu/articles/mba/why-managers-understand-organizational-behavior.aspx>

**COURSE OBJECTIVE: (Employability)**

- 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>

**COURSE OBJECTIVE: (Employability)**

- 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.

**UNIT V ECONOMIC THEORY 12**

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

**TOTAL: 60 HOURS**



## **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>

**COURSE OBJECTIVE: (Employability)**

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

**UNIT I INTRODUCTION 12**

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

**UNIT II ANALYSIS OF FINANCIAL STATEMENTS 12**

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

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

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

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

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

**UNIT V BUDGETING AND FINANCIAL REPORTING 12**

Budgeting – Different types of budgeting – Cash budget – Flexible budget. Financial reporting – Concepts – users, Objectives of financial reporting – Qualitative characteristics of information in financial reporting – basic problems of disclosure – Role of SEBI in IFRS – Statutory disclosures in IFRS – Corporate reporting practices in India- Challenges in financial reporting

**TOTAL: 60 HOURS**

## **COURSE OUTCOMES:**

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

- CO – 1 : State the importance of common accounting standards
- CO – 2 : Estimate Budgeting and Financial Reporting
- CO – 3 : Prepare financial statements through ratio analysis.
- CO – 4 : Analyze financial reports of financial instruments, mutual funds,
- CO – 5 : Analyze cash flow and fund flow statement

## **TEXT BOOKS:**

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

## **REFERENCE BOOKS:**

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

## **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>

**COURSE OBJECTIVE: (Employability)**

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

**UNIT I INTRODUCTION 12**

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

**UNIT II LEGAL ASPECTS 12**

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

**UNIT III CONTRACT MANAGEMENT 12**

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

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

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

**UNIT V COPYRIGHTS & TRADEMARKS 12**

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

**TOTAL: 60 HOURS**

**COURSE OUTCOMES:**

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

- CO – 1 : Draft a simple employment contract
- CO – 2 : Arrange the basics elements of contracts and classifications of contract
- CO – 3 : Improve their awareness and knowledge about functioning of local business.
- CO – 4 : Improve their awareness and knowledge about functioning of global business.
- CO – 5 : Gather knowledge on evolution of business enterprises

**TEXT BOOKS:**

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

**REFERENCE BOOKS:**

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

**WEB SOURCES:**

1. <https://www.airtract.com/article/the-legal-environment-of-business-%E2%80%93-a-complete-guide#:~: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>

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**COURSE OBJECTIVE: ( Skill Development)**

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

**UNIT I INTRODUCTION 12**

Fundamentals of Communication, Business Communication, The Communication Model, Communicating in teams, Overcoming the Barriers to Communication. Non-verbal communication, Introducing the 7 Cs of business writing – Candid, Clarity, Complete, Concise, Concrete, Correct and Courteous, writing business messages, The Stages in writing, Pre writing, Writing and Post writing.

**UNIT II REVISING AND CHECKING MESSAGES 12**

Revising to improve the content and sentence structure, Avoiding redundant phrases and words, Proof-reading to correct grammar, spelling, punctuation, format, and mechanics, Evaluating whether the message achieves its purpose. The Process of Writing E Mails, breaking it Down – The PAIBO Technique, Structuring an E Mail – The 3 T's – Introduction, Body and Conclusion, Effective Subject lines, Salutation and Signing off. Business reports and Proposals, Format, visual aids and contents, Oral Business presentations

**UNIT III ETIQUETTE AND INTERVIEW 12**

Meaning, Body Language, Gesture, Postures, Expressions, Dress code, Etiquette etc... Public speaking and Speech composition Technical Speeches and non technical presentation Principles of effective speaking and Presentations. Interview, Exit interview, Appraisal etc.. Importance of Interview, Art of conducting and giving interview Types of Interviews like Placement interview Discipline interview, Appraisal interview, Exit interview etc...

**UNIT IV MEETING AND LETTERS 12**

Opening and closing of meeting, Brain storming, e-meeting etc.. Importance of Meeting Procedure of conducting Group Discussions Significance of Brain Storming in Business Decisions, Advantages/Disadvantages of E-Meeting Preparing Agenda and Minutes of the meeting. Inquires, Circulars, Quotations, Orders, Memo, Minutes, Notice etc... Types of Letters : Letter Writing – letters - Business letters. Application for a job / covering letter with bio-data. Attitude. Negotiation skills Social Conversation - Values and ethics - Managing stress.

## UNIT V                      SOFT SKILLS

12

Principles of group discussion - Purpose of group discussion - Preparation - Skills to be acquired — communication, leadership, problem-solving - Effective participation. Personality Enrichment - Positive attitude - SWOT Analysis - Self-confidence and motivation - Inter-personal skills - Projecting a positive social image Time Management - Goal setting and prioritisation - ABC Analysis—preparing a personal schedule - Short term and long term goals - Implementing goals - Task list organisation Leadership Skills - Setting objectives and taking initiatives - Persuading and negotiating - Team work - Maintaining morale - Inspiring others

**TOTAL: 60 HOURS**

### **COURSE OUTCOMES:**

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

- CO – 1 : Recall the basics of communication and its process, elements and importance.
- CO – 2 : Evaluate the effectiveness of revising, checking and proof reading the messages.
- 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 : Evaluate the effectiveness of revising and checking the messages.

### **TEXT BOOKS:**

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

### **REFERENCE BOOKS:**

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

### **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](https://www.atctraining.com/soft_skills_definition_of_communication.htm)
3. <https://www.jobwise.co.uk/the-importance-of-soft-skills-in-business/>

**COURSE OBJECTIVE: ( Skill Development)**

- 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 12**

History of Computer – Definition – Types of Computers – Desktop Computer – Laptop – Functions of Computer – Application and Current Trends for business related problems

**UNIT II HARDWARE&SOFTWARE 12**

Hardware System – Types of Hardware: Input, storage and output devices – Internal and External Parts of Hardware – Software – System Software: Operating System (OS) such as Microsoft Windows and Macintosh – Application software – Internet

**UNIT III MICROSOFT WORD 12**

Microsoft Word – History, Version – Features of Word Such as File Creation, Formatting, Editing, Paragraph Formatting, Inserting Header and Footer and Page Number, Inserting Tables, Inserting Symbols, Print Review and Printing

**UNIT IV MICROSOFT EXCEL 12**

Microsoft Excel – History, Version – Features of Excel Such as File Creation, Formatting, Editing, Organizing the Worksheet, Formulas/Functions, Sorting, Filters, Creating Charts, Print Review and Printing

**UNIT V MICROSOFT POWERPOINT 12**

Microsoft PowerPoint – History, Version – Features of PowerPoint Such as File Creation, Slide Creation, Formatting, Editing, Adding Transitions and Animation, Print Review and Printing.

**TOTAL: 60 HOURS**

**COURSE OUTCOMES:**

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

- CO – 1 : Describe the fundamentals of computer.
- CO – 2 : Explain the basics of hardware and software.
- CO – 3 : Identify different components of hardware systems.
- CO – 4 : Discuss about the word processing using Microsoft Word.



CO – 5 : Demonstrate **working with Spreadsheets** using Microsoft Excel.

**TEXT BOOKS:**

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

**REFERENCE BOOKS:**

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

**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](https://www.oakton.edu/academics/academic_departments/computer_app_business/index.php)
3. <https://visionarybusinessperson.com/computer-application-in-business/>

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

**COURSE OBJECTIVE: (Employability)**

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

**UNIT I HUMAN RESOURCE MANAGEMENT 12**

Meaning, Scope & Objectives of HRM, Evolution of HRM, Difference between PM & HRM, HRM function's, HR Policy & procedures. Competitive challenges influencing HRM Qualities & qualification of HR Manager, Line & Staff Roles and Responsibilities of HR Manager/Departments, HR as a factor of Competitive Advantage

**UNIT II HUMAN RESOURCE PROCESS 12**

Human Resource Planning – Job Analysis and Design -Recruitment - Selection and placement process – Types of interviews, Placement, Orientation & Induction, Determining training needs analysis, Delivery Methodology, Evaluation, Capacity Building.

**UNIT III MANAGING CAREERS 12**

Career Planning & Development vs. Employee development. Career stages – Career Choices and Preferences, Mentoring and Coaching, Time Management. Employee Separations, Downsizing & Outplacement, HRIS, Fundamentals of Industrial Relations and Fundamentals of Labour Laws

**UNIT IV PERFORMANCE MANAGEMENT 12**

Purposes of Performance Management, Performance Appraisal Methods, limitations and problems, Punishment and Promotion, Job evaluation. Wage & Salary fixation, incentives, bonus, ESOPs. Insurance, Fringe Benefits.

**UNIT V CONTEMPORARY ISSUES IN HRM 12**

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

**TOTAL: 60 HOURS**

## **COURSE OUTCOMES:**

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

- CO – 1 : Discuss the History and evolution of HRM.
- CO – 2 : Explain the importance of HRM in the organizations
- CO – 3 : Assess the major HRM functions and processes of HRM planning
- CO – 4 : Identify strategic HR planning and the HRM process to the organization's strategic.
- CO – 5 : Explain how training helps to improve the employee performance.

## **TEXT BOOKS:**

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

## **REFERENCE BOOKS:**

1. Angela Baron and Michael Armstrong, Human Capital Management (Achieving Added Value through People), Kogan Page Limited, United States. 2007
2. Anuradha Sharma and Aradhana Khandekar Strategic Human Resource Management. Response Books, New Delhi. 2006
3. Beer et al, Managing Human Assets, The Free Press: Maxwell Mac Millan Inc, New York. 1984

## **WEB SOURCES:**

1. <https://open.lib.umn.edu/humanresourcemanagement/chapter/1-1-what-is-human-resources/>
2. <https://www.hrdconnect.com/2019/05/22/what-is-hr-management-in-an-organisation/>
3. <https://www.thebalancecareers.com/what-is-human-resource-management-1918143>

**COURSE OBJECTIVE: (Employability)**

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

**UNIT I INTRODUCTION 12**

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

**UNIT II CONSUMER MARKETS 12**

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

**UNIT III MARKET SEGMENTATION 12**

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

**UNIT IV MARKETING PROGRAMME 12**

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

**UNIT V MARKETING RESEARCH 12**

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

Audit, **Online Marketing**. Ethics in marketing. **Case study**: Marketing strategy Implementation; Market Segmentation / Targeting / Positioning; Product Levels, Pricing

**TOTAL: 60 HOURS**

**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.economicdiscussion.net/marketing-management/what-is-marketing-management/31788>
3. <https://www.indeed.com/hire/c/info/marketing-management>

**COURSE OBJECTIVE: (Employability)**

- To provide **foundational knowledge associated** with the operations management
- To describe the **various techniques for implementation of operations management** based on the forecasting, planning, quality and inventory

**UNIT I INTRODUCTION 12**

History and Definition – **Production Vs. Operations** – Manufacturing Vs. Service Operations – Functions – **Production Systems – Types of Production Systems** – Operations Strategy – Operations Management Vs. Operations Strategy

**UNIT II LOCATION, LAYOUT AND FORECASTING 12**

Plant Location – **Factors influencing location** – **Plant Layout – Types of Layout** – Forecasting – Forecasting technique: Qualitative and Quantitative – **Delphi Method – Regression Analysis** – Forecasting Error

**UNIT III PLANNING 12**

**Capacity Planning – Aggregate Production Planning (APP) – Disaggregation: Master Production Scheduling (MPS) – Material Requirement Planning (MRP) – Production Planning and Control (PPC)**

**UNIT IV QUALITY 12**

**Evolution of Quality** – Quality Definition and Contributions by W. Edwards Deming, Joseph M. Juran and Philip B. Crosby – **Dimensions of Quality** – Process Quality Vs. Product Quality – **Seven Basic Quality Tools – Plan-Do-Check-Act (PDCA) Cycle**

**UNIT V INVENTORYMANAGEMENT 12**

Inventory Management – **Types of Inventory Models** – Independent Demand Vs. Dependent Demand – **Basic Economic Order Quantity (EOQ) Model** – **Analysis: ABC and VED** – Push Vs. Pull system – **Just-In-Time (JIT) Vs. Material Requirement Planning (MRP)**

**TOTAL: 60 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. Ajay Garg. Production and Operations Management, Tata McGraw-Hill Education, 2017.
2. Stevenson J. William, Operations Management, 9th Edition, TMH, 2007.

**REFERENCE BOOKS:**

1. Roger Schroeder, Susan Goldstein, M. Johnny Rungtusanatham. Operations Management, McGraw-Hill Education, 2010.
2. Lee J. Krajewski and Larry P. Ritzman, 2007, Operations Management strategy and analysis, 9th Edition, Pearson Education / Prentice Hall of India, 2007.

**WEB SOURCES:**

1. <https://corporatefinanceinstitute.com/resources/knowledge/strategy/operations-management/>
2. <https://managementhelp.org/operationsmanagement/>
3. <https://hbr.org/topic/operations-management>



**COURSE OBJECTIVE: (Employability)**

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

**UNIT I ELECTRONICSCM,COMMUNICATIONNETWORKS 12**

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

**UNIT II ENTERPRISE INFORMATION SYSTEMS 12**

Overview of enterprise information systems - Information functionality and principles - Introduction enterprise information systems -Classification of enterprise information systems - Information architecture -Framework for managing supply chain information - Describe ion on popular enterprise application packages -Benefits of enterprise information systems

**UNIT III SCM SYSTEMS DEVELOPMENT 12**

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

**UNIT IV DEPLOYMENT AND MANAGEMENT 12**

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

**UNIT V INFORMATION INTEGRATION 12**

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

Recommendations and implementation -Decision support systems

**TOTAL: 60 HOURS**

**COURSE OUTCOMES:**

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

- CO – 1 : Assess the eSCM, benefits and communication networks.
- CO – 2 : Analyze the various e-commerce models.
- CO – 3 : Summarize the classification of enterprise information systems.
- CO – 4 : Analyze the framework for managing supply chain information.
- CO – 5 : Compare the various enterprise architectures.

**TEXT BOOKS:**

- 1. Donald Bowersox, DavidCloss,& Bixbycooper Supply chain Logistical Management
- 2. R.H. Ballou, and Samir Business Logistics Management,5th Edition 2014

**REFERENCE BOOKS:**

- 1. Strauss, Alexa & Frost E-Marketing, Routledge; 8th New edition edition 2018
- 2. Statistics for Managers Using MS Excel, 8th Edition Levine & David Pearson Education 2017
- 3. David B. Grant & Chee Yew Wong Sustainable Logistics and Supply Chain Management: Principles and Practices for Sustainable Operations and Management Kogan Page; 2 edition April 3, 2017

**WEB SOURCES:**

- 1. [https://ebooks.lpude.in/management/mba/term\\_4/DMGT523\\_LOGISTICS\\_AND\\_SUPPLY\\_CHAIN\\_MANAGEMENT.pdf](https://ebooks.lpude.in/management/mba/term_4/DMGT523_LOGISTICS_AND_SUPPLY_CHAIN_MANAGEMENT.pdf)
- 2. <https://www.geektonight.com/supply-chain-management-pdf/>

**COURSE OBJECTIVE: (Employability)**

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

**UNIT I CONCEPTS OF SUPPLY CHAIN 12**

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

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

Integrated supply chains design - Customer relationship process - Order fulfillment process - Supplier relationship process - Supply chain strategies - Strategic focus - Mass customization - Lean supply chains - Outsourcing and offshoring - Virtual supply chains.

**UNIT III SUPPLY CHAIN PERFORMANCE DRIVERS 12**

Drivers of supply chain performance - Logistics drivers (Location, inventory and transportation) - Cross functional drivers (Pricing, information and sourcing) - Forecasting introduction - Framework for a forecast system - Choosing right forecasting technique - Judgment methods (Composite Forecasts, Surveys, Delphi Method, Scenario Building, Technology Forecasting, Forecast by Analogy) - Causal methods (Regression Analysis -Linear & Non-Linear Regression, Econometrics) - Time series analysis (Autoregressive Moving Average (ARMA), Exponential Smoothing, Extrapolation, Linear Prediction, Trend Estimation, Growth Curve, Box-Jenkins Approach) - CPFR

**UNIT IV SALES AND OPERATIONS PLANNING 12**

Introduction to Sales and operations planning - Purpose of sales and operations plans - Decision context - Sales and operations planning as a process - Overview of decision support tools

**UNIT V RESOURCE PLANNING AND SCHEDULING 12**

Enterprise resource planning - Planning and control systems for manufacturers - Materials requirement planning - Drum - Buffer - Rope system - Scheduling - Scheduling service and manufacturing processes - Scheduling customer demand - Scheduling employees - Operations

scheduling.

**TOTAL: 60 HOURS**

**COURSE OUTCOMES:**

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

- CO – 1 : Classify logistics and supply chain management
- CO – 2 : Analyze supply chain dynamics and various issues of supply chain performance.
- CO – 3 : Develop the supply chain strategies.
- CO – 4 : Select the various drivers of supply chain performance.
- CO – 5 : Design about sales and operations planning process

**TEXT BOOKS:**

1. Sunil Chopra, Peter Meindl, Supply Chain Management: Strategy, Planning, and Operation, Pearson 6th Edition, 2016.
2. Janat Shah, Supply Chain Management, Pearson Education India, 2nd Edition 2016
3. Li tong group announces global framework agreement with VEON. 2018

**REFERENCE BOOKS:**

1. Paul Schönsleben, Integral Logistics Management: Planning and Control of Comprehensive Supply, ACRC Press Company, 2016.
2. David Frederick Ross, Distribution Planning and Control: Managing in the Era of Supply Chain last edition, Springer, 2015.

**WEB SOURCES:**

1. <https://backup.pondiuni.edu.in/sites/default/files/Logistics%20Supply%20Chain%20Mgt200813.pdf>

**COURSE OBJECTIVE: (Employability)**

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

**UNIT I INTRODUCTION LOGISTICS 12**

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

**UNIT II LOGISTICS SYSTEM DESIGN 12**

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

**UNIT III LOGISTICS STRATEGY AND PLANNING 12**

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

**UNIT IV INVENTORY AND PURCHASING 12**

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

**UNIT V LOCATION DECISIONS 12**

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

**TOTAL: 60 HOURS**

**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 edition March 2018
2. John J. Coyle, Edward J. Bardi and C. John Langley Jr., The Management of Business Logistics - A supply chain Perspective, Thomson Business Information, 10<sup>th</sup> edition 2016.
3. Vinod V. Sople, Logistics Management, Pearson Education, 2<sup>nd</sup> edition 2009

**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](http://sjput.in/pdf/ibiv_ilm.pdf)**
3. **<https://iimm.org/wp-content/uploads/2019/12/Logistics-and-Warehousing-Management.pdf>**

**COURSE OBJECTIVE: (Employability)**

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

**UNIT I DISTRIBUTION 9**

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

**UNIT II PLANNING 9**

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

**UNIT III TRANSPORTATION 9**

Role of Transportation in Logistics and Business, Principle and Participants-Scope and relationship with other business functions, Modes of Transportation - Mode and Carrier selection, Routing and scheduling.

**UNIT IV TRANSPORTATION 9**

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

**UNIT V INFORMATION TECHNOLOGY (IT) 9**

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

**TOTAL: 45 HOURS****COURSE OUTCOMES:**

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

- CO – 1 : Develop the various distribution network models
- CO – 2 : Plan for the different distribution networks
- CO – 3 : Gain knowledge about the distribution requirements planning.
- CO – 4 : Illustrate on the various modes of transportation and the selection decisions.
- CO – 5 : Identify the issues involved in international transportation.

**TEXT BOOKS:**

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

**REFERENCE BOOKS:**

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

**WEB SOURCES:**

1. [https://base-logistique-services.com/storage/app/media/Chopra Meindl SCM.pdf](https://base-logistique-services.com/storage/app/media/Chopra_Meindl_SCM.pdf)
2. <https://examupdates.in/mba-international-logistics-management/>
3. <https://examupdates.in/sales-and-distribution-management-notes/>
4. <https://bookpdf.co.in/international-logistics-management-pdf/>



**COURSE OBJECTIVE: (Employability)**

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.

**COURSE OBJECTIVE: (Employability)**

- 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. James R. Evans., Business Analytics–Methods, Models and Decisions, Pearson Publications, 1st Edition, 2012.
3. Ramesh Sharda, Dursun Delen, 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 Decision Making, 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/>

**COURSE OBJECTIVE: (Employability)**

- 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 12**

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 12**

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 12**

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 12**

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 12**

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: 60 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, 7<sup>th</sup> Edition, 2004.
2. Donald R. Cooper, Pamela S. Schindler and J K Sharma, Business Research methods, 11<sup>th</sup> 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](https://www.sagepub.com/sites/default/files/upm-binaries/36330_Chapter2.pdf)
4. <https://www.youtube.com/watch?v=LKH1Kp7TQA4>

**COURSE OBJECTIVE: (Employability)**

- 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 TRANSPORTATION 9**

Meaning and Significance of International Transportation- Role of transportation in integrated logistics process, Basic principles of international transportation, Parties involved in international transportation, Significance of Transportation, Modes of International Transportation- Criteria for Selection of different modes of transportation, Multi Modal Transportation. Freight costing and pricing- Classification of Costs associated with Transportation process, Cost Strategies, Factors affecting, Transportation rate

**UNIT II OCEAN MODE OF TRANSPORTATION 9**

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

**UNIT III AIR AND FREIGHT TRANSPORTATION 9**

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

**UNIT IV LAND MODE 9**

Transportation by Rail and Road, Meaning of Land mode of transportation, International Road Transportation, International Road Network, Advantages and Constraints of International Road

Transport, International Rail Transportation, Advantages and Constraints of International Rail Transport; Pipeline as a Mode of Transportation and Concept of Multi-modalism, Concept of Containerization.

**UNIT V EXIM PROCEDURE AND DOCUMENTATION 9**

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

**TOTAL: 45 HOURS**

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

**WEB SOURCES:**

- 1. <https://examupdates.in/international-marketing-logistics-notes/>
- 2. [https://www.researchgate.net/publication/296705994\\_International\\_Logistics](https://www.researchgate.net/publication/296705994_International_Logistics)
- 3. [https://collegetutor.net/notes/Introduction\\_to\\_International\\_Logistics\\_pdf\\_notes](https://collegetutor.net/notes/Introduction_to_International_Logistics_pdf_notes)

**COURSE OBJECTIVE: (Employability)**

- To explore the fundamental concepts of **Global Procurement Management**.
- To gain knowledge in **Strategic Sourcing**.

**UNIT I PURCHASING OPERATIONS AND STRUCTURE 9**

The purchasing and supply process - **Introduction to purchasing and SCM** - Strategic supply management roles and responsibilities - **Improving the procure to pay process** - Approval, contract and purchase order preparation - **Types of purchases** - Purchasing policy and procedures - Policy overview - Purchasing policies - **Purchasing procedures**.

**UNIT II SUPPLY MANAGEMENT INTEGRATION AND STRATEGIC SOURCING 9**

**Internal integration - External integration** - The critical role of cross functional scouring teams - Integrating supply management, engineering, and suppliers to develop new products and services – purchasing/supply management organizational structure - **Purchasing position within the organizational structure** - Supply management and commodity strategy development - Aligning supply management and enterprise objectives - Category strategy management - **Types of supply management strategies** - **E-reverse auctions - Evolving sourcing strategies** - Supplier evaluation and selection - Supplier evaluation and selection process - Key supplier evaluation criteria - Developing a supplier evaluation and selection survey - Reducing supplier evaluation and selection cycle time.

**UNIT III TOOLS AND TECHNIQUES FOR PURCHASING ANALYSIS 9**

Project management - **Learning – curve analysis** - Value analysis / value engineering - Quantity discount analysis - **Process mapping** - Supplier quality management Supplier management and development - **Supplier performance measurement** - **Rationalization and optimization**: Creating a manageable supply base - Supplier development: A strategy for improvement - Overcoming the barriers to supplier development - Managing supply base risk - Managing sustainability in the supply base.

**UNIT IV STRATEGIC COST MANAGEMENT 9**

A structured approach to cost reduction - **Price analysis** - Cost analysis techniques - **Total cost of ownership** - Collaborative approaches to cost management



## UNIT V                    NEGOTIATION AND CONTRACTING

9

**Negotiation** - The negotiation framework in supply management - **Negotiation planning** - Power in negotiation - Concessions, negotiation tactics, win-win negotiation - Internal negotiation - **Impact of electronic media on negotiations** - Contract management - Elements of contract - How to negotiate and write contract - **Types of contract - Long-term contracts in alliances and partnerships** - Nontraditional contracting - Settling contractual disputes.

**TOTAL: 45 HOURS**

### **COURSE OUTCOMES:**

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

- CO – 1 : Summarize the **Purchasing policies**.
- CO – 2 : Understand the Methods of **Supplier evaluation and selection**.
- CO – 3 : Identify the types of **Process mapping tools**.
- CO – 4 : Discuss about **Price analysis**.
- CO – 5 : Judging **the Contract management**.

### **TEXT BOOKS:**

1. Parasram, -In Cotermis Exports Coartind and Pricing with Practical Guide to in Co-Terms, 1s Edition, Jain Book, 6th Edition, 2010.
2. M I Mahaian, -Impart Do It Yourself, Jain Book, 7th Edition, 2007.

### **REFERENCE BOOKS:**

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

### **WEB SOURCE:**

1. <https://publications.lib.chalmers.se/records/fulltext/90488.pdf>
2. <http://www.mim.ac.mw/books/Purchasing%20And%20Supply%20Chain%20Management%204th%20edition.pdf>
3. <http://www.ddegjust.ac.in/2017/Uploads/11/POM-325.pdf>
4. [https://www.researchgate.net/publication/327320611\\_Purchasing\\_and\\_Supply\\_Management](https://www.researchgate.net/publication/327320611_Purchasing_and_Supply_Management)

**COURSE OBJECTIVE: (Employability)**

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

**UNIT I INTRODUCTION WAREHOUSING 9**

Introduction – Warehousing – Warehousing Decisions – Warehouse Operations – WMS – Types of Warehouses – Warehouse Layout – Functions - Equipment and components – Centralized & Decentralized – Warehouse operations and Storage Systems – Warehousing Cost Analysis

**UNIT II INVENTORY MANAGEMENT 9**

Concepts – Role in Supply Chain – Role in Competitive Strategy – Independent Demand Systems – Dependent Demand Systems – Functions – Types – Cost – Need for Inventory – Just in Time- Inventory Control – ABC Inventory Control – Bull Whip Effect

**UNIT III MANAGING WAREHOUSE EFFICIENCY 9**

Order picking – Picking methods-pick path – Measuring Warehouse Efficiency – Warehouse Workforce design and development – cross docking

**UNIT IV UNITIZATION, SHIPPING AND PACKAGING 9**

Container optimization-Container loading and void fill-Weigh checking-Automated loading-Dock management-packaging-types-cost- and labelling functions and design

**UNIT V DISTRIBUTION FACILITIES MANAGEMENT 9**

Material Handling Systems–Types of Material Handling Equipment – Modern Warehousing – ASRS & their Operations – Bar Coding-Technology & Applications in Logistics Industry – RFID Technology & Applications – Types of Conveyors – Refrigerated Warehouses

**TOTAL: 45 HOURS**

**COURSE OUTCOMES:**

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

- CO – 1 : Summarize the basics of warehousing.
- CO – 2 : Justify the various types of warehouses.

- CO – 3 : Compare the various costs involved in a warehouse.
- CO – 4 : Constructing the **inventory management** in the supply chain.
- CO – 5 : Design the use of **warehouse management systems** manage warehouse operations.

**TEXT BOOKS:**

1. Frazelle, World Class Warehousing & Material Handling, Tata McGraw-Hill, 2<sup>nd</sup> edition 2015.
2. Vinod.V.Sople, Logistics Management, Pearson Education, 3<sup>rd</sup> edition 2012.
3. Arnold, Introduction Materials Management, Pearson Education, 7<sup>th</sup> edition 2011.

**REFERENCE BOOKS:**

1. Frazelle, World Class Warehousing & Material Handling, Tata McGraw-Hill, 2<sup>nd</sup> edition 2015.
2. Satish K. Kapoor and PurvaKansal, Basics of Distribution Management - A Logistical Approach, Prentice Hall, 1<sup>st</sup> Edition 2004
3. Satish K. Kapoor and PurvaKansalMarketing, Logistics - A Supply Chain Approach ,
4. Pearson Education, 2003

**WEB SOURCE:**

1. <https://www.veeqo.com/wp-content/uploads/2018/04/Warehouse-Management-PDF.pdf>
2. [https://www.academia.edu/13356349/Handbook\\_of\\_Logistics\\_and\\_Distribution\\_Management](https://www.academia.edu/13356349/Handbook_of_Logistics_and_Distribution_Management)
3. <https://www.humanitarianlibrary.org/sites/default/files/2019/05/LOG-WarehousingandInventoryManagement-130519-0911-13124.pdf>
4. [http://supplychainhandbook.jsi.com/wp-content/uploads/2017/01/JSI\\_Supply\\_Chain\\_Manager's\\_Handbook\\_Chpt.8\\_Final.pdf](http://supplychainhandbook.jsi.com/wp-content/uploads/2017/01/JSI_Supply_Chain_Manager's_Handbook_Chpt.8_Final.pdf)

**COURSE OBJECTIVE: (Employability)**

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

**UNIT I CONTRACT LOGISTICS 9**

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

**UNIT II CLOSED LOOP SUPPLY CHAINS AND LOGISTICS 9**

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

**UNIT III BUSINESS AND MARKET 9**

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

**UNIT IV EMERGING TRENDS 9**

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

**UNIT V MANAGING PROCESSES 9**

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

**TOTAL: 45 HOURS**

**COURSE OUTCOMES:**

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

CO – 1 : Identify basics of contract logistics.

- CO – 2 : Recall about the third party logistics providers.
- CO – 3 : Respond about closed loop supply chains.
- CO – 4 : Determine the business and markets for closed loop supply chains.
- CO – 5 : Generate the emerging trends in closed loop supply chains.

**TEXT BOOKS:**

1. Janat Shah, Supply Chain Management: Text and Cases, 2<sup>nd</sup> Edition 2016 .
2. Janat Shah, Supply Chain Management: Text and Cases, 2<sup>nd</sup> Edition 2017.
3. John Manners-Bell, Logistics and Supply Chains in Emerging Markets, Kogan Page, 2017.

**REFERENCE BOOKS:**

1. Coyle, John Joseph. (2017). Supply chain management: a logistics perspective. 10th ed. Australia: Cengage Learning. HD 38.5 C69 2017
2. Abbey, J. D., & Guide Jr, V. D. R. (2017). Closed-loop supply chains: a strategic overview Sustainable Supply Chains (pp. 375-393): Springer

**WEB SOURCE:**

1. <https://www.researchgate.net/publication/325199491> **A review of reverse logistics and closed loop supply chain management studies published in JJPR a bibliometric and content analysis**
2. [https://www.ripublication.com/irph/ijert\\_spl/ijerty6n4spl\\_07.pdf](https://www.ripublication.com/irph/ijert_spl/ijerty6n4spl_07.pdf)

**COURSE OBJECTIVE: : ( Employability)**

- 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 9**

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

**UNIT II DESCRIPTIVE ANALYTICS 9**

Introduction – Descriptive Analytics in Supply Chain – Business Intelligence in Supply Chain – Descriptive Analytics Techniques: Dashboard, Reporting, Data Visualization

**UNIT III PREDICTIVE ANALYTICS 9**

Introduction – Predictive Analytics in Supply Chain: Demand, Pricing and Risk – Predictive Analytics Techniques: Regression, Time Series Analysis, Simulation

**UNIT IV PRESCRIPTIVE ANALYTICS – I 9**

Introduction – Prescriptive Analytics in Supply Chain – Optimization – Classification of optimization problems – Optimization for Analytics – Operations Research Techniques for Analytics

**UNIT V PRESCRIPTIVE ANALYTICS – II 9**

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

**TOTAL: 45 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. G.V.Shenoy,U.K.Srivastava,S.C.Sharma, Operations Research for Management, New Age International,Revised 2nd Ed, 2005.

**REFERENCE BOOKS:**

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

**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](https://www.researchgate.net/publication/340169982_Big_Data_Analytics_and_Its_Applications_in_Supply_Chain_Management)

**COURSE OBJECTIVE: (Employability)**

- 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. Operations – 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](http://www.opentextbooks.org.hk/system/files/export/15/15694/pdf/Project_Management_15694.pdf)
4. <https://www.projectsart.co.uk/ebooks.php>