

Course code	Logistics and Supply Chain Management	L	T	P	C
Online		3	1	0	4
Pre-requisite: Nil		Version			

Course Objectives:			
To develop knowledge, skills and competencies in the field of logistics and Understanding the role of IT in supporting the effectiveness of logistics			
Expected Course Outcome:			
The course is aimed at			
1) To understand the role of logistics in the design and operations of supply chain			
2) Demonstrate knowledge and understanding of the key concepts of inbound and outbound logistics in value chain			
3) Design an efficient transportation system, warehousing, material handling and economical packaging to control the operational cost			
4) Evaluate the performance on cost and time factor			
Student Learning Outcomes (SLO):			
Students will be able to			
1) Having an ability to apply mathematics / business problem solving techniques in business applications			
2) Having a clear understanding of the subject related concepts and of contemporary issues			
6) Having an ability to design a Quantitative / product / service solutions applying all the relevant standards and with realistic constraints, in different managerial contexts.			
17) Having an ability to use techniques, skills and modern managerial tools & techniques necessary for business practice			
Modules	Topics	L Hrs	SLO
1	Introduction to Logistics and SC management: Definition and Scope of Logistics and SC – Functions & Objectives – Customer Value Chain – Service Phases and attributes – Value added logistics services – Building a strategic framework to analyze supply chains: Role of logistics and SC in Competitive strategy - Understanding the Supply Chain Performance measures -Achieving Strategic Fit and Scope-Supply Chain Drivers and Metrics-Overview of Supply Chain Challenges in India	8	1,2
2	Designing the Supply Chain Network: Designing Distribution Networks and Applications to Business, Network Design in the Supply Chain, Network Design in an Uncertain Environment Warehousing and Material Handling: Warehousing Functions – Types – Warehousing decisions and facilities location – Decision Model – Layout Design –. Material Handling Equipment and Systems-Cross Docking.	7	3,5
3	Planning Demand and Supply in a Supply Chain: Demand Forecasting in a Supply Chain, Aggregate Planning in a Supply Chain-Sales and Operations Planning: Planning Supply and Demand in a Supply Chain-Coordination in a Supply Chain	6	2,3,8
4	Planning and Managing Inventories in a Supply Chain: Managing Economies of Scale in a Supply Chain: Cycle Inventory-Managing Uncertainty in a Supply Chain: Safety Inventory-Determining the Optimal Level of Product Availability	7	4,5,6,8

	Designing and Planning Transportation Networks: Role of Transportation in a SC, - Transportation System – Evolution, Infrastructure and Networks, Freight Management – Route Planning –Containerization - Modal Characteristics, Inter-Modal Operators and Transport Economics. Packaging- Design considerations.		
5	Managing cross-functional drivers in a supply chain: Sourcing Decisions in a Supply Chain-Pricing and Revenue Management in a Supply Chain-Information Technology in a Supply Chain-Sustainability and the Supply Chain Outsourcing, IT in Logistics: Logistics Outsourcing; Logistics Service provider – 3PL, 4PL and 5PL; Logistics Information Systems – Need, Characteristics and Design. E-Logistics – Structure and Operation. Logistics Resource Management. Automatic Identification Technologies. Reverse Logistics – Scope, Design and as a Competitive Tool.	8	2,3,7
6	Reverse Logistics – Scope, Design and as a Competitive Tool. Analysis on recent trends in reverse logistics.	4	
	Total Hours	40	
References <ol style="list-style-type: none"> 1. Alan Rushton, Phil Croucher, (2014), The Handbook of Logistics and Distribution Management, 5th edition, Kogan Page. 2. Ailawadi C Satish, Rakesh Singh, (2012), Logistics Management, 2nd edition, Prentice Hall India. 3. Douglas Lambert, James R Stock, Lisa L. Ellram, (1998), Fundamentals of Logistics Management, The Irwin/McGraw-Hill. 4. Sople Vinod V, (2004), Logistics Management – The Supply Chain Imperative, Pearson Education, Indian Reprint. 5. Coyle et al, (2004), The Management of Business Logistics, 7th edition, Cengage Learning. 6. Bowersox Donald J, (2000), Logistical Management – The Integrated Supply Chain Process, Tata McGraw Hill, 7. Bloomberg David J et. al, (2005), Logistics, Prentice Hall India. 			

Course Owner details:

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