

3PE49: LOGISTICS & SUPPLY CHAIN MANAGEMENT
CREDITS – 4 (LTP: 3,0,1)

Course Objective:

An understanding of the primary differences between logistics and supply chain management. Analyze the level of uncertainty associated with the supply of products and services to targeted customer segments and justify the choice of a supply chain strategy and its fit with competitive strategy.

Teaching and Assessment Scheme:

Teaching Scheme (Hours per Week)			Credits	Assessment Scheme				Total Marks
L	T	P		C	Theory Marks		Practical Marks	
			ESE		CE	ESE	CE	150
3	0	2	4	60	40	20	30	

Course Contents:

Unit No.	Topics	Teaching Hours
1	Introduction Logistics: Introduction, Logistics system design, Demand planning, Multiple channel distribution, Model development, Concept of warehousing, Methods of storage, Primary and secondary transportation, Logistics information system, Logistics costing.	07
2	Logistics Management: Nature and scope of logistics, modes of transportation and their performance characteristics, Logistics environment, Logistic decisions: facility location, transportation, storage and material handling. Logistics information systems, Logistics audit and control. Logistics Applications, Logistics & Competitive strategies and global supply chain management, total logistics cost, Logistics to Supply Chain Management focus, Material handling, facility planning and warehousing/storage/retrieval. The role of IT in supply chain, E-supply Chain.	09
3	Supply chain management: Overview, Supply chain basics, Decision phases in a supply chain, Planning and operations, Importance of supply chain process, Functional and organizational scope of SCM, Management of Demand and supply in SCM.	07
4	Supply Chain: Drivers, Metrics & Forecasting: Drivers of supply chain performance, Framework for structuring drivers, Obstacles to achieving strategic fit. Role of forecasting in a supply chain, Components of a forecast and forecasting methods, Risk management in forecasting	06
5	Inventory Management & Approach To Design Lean Supply Chains Traditional Inventory Management, Lean Inventory Management, Kanban Sizing, WIP Inventory: FIFO Management, Kanban-Visual Card, Inventory Reduction through Reducing Lot Sizes, Point of Sale Data. Strategies to configure a lean supply chain for (i) Fast Moving Items, (ii) Slow moving Items and (iii) Dead Stocks Vendor Managed Inventory (VMI),JIT System	07

Unit No.	Topics	Teaching Hours
	99% Syndrome, Standardization, Service Level: How to manage, Lean Logistics	
6	Reverse Logistics & Sustainable Supply Chain Issues Involved in Reverse Logistics, Concept of different Reverse Logistics Issues, Product Recall Examples and Implications, Recent Trends in Supply Chain Management Low carbon Supply chains: Concept, Modeling, Case study Food Security Issues and its Supply chains: Concept, Modeling, Case study of FCI, Changing Scenarios in Environmental Clearance, Hazardous Waste Management, E-waste Management, etc. in India and International Benchmarks.	06
Total		42

List of References:

1. Lambert, D.M., Stock J.R., “*Fundamentals of Logistics Management*”, Irwing McGraw Hill, 1998
2. Sunil Chopra and Peter Menidl, “*Supply chain management- Strategy Planning and Operations*”, Prentice Hall, 2001
3. Blanchard, B.S., “*Logistics Engineering & Management*” Prentice Hall, New Jersey, 1997
4. Ronald Ballou, “*Supply Chain Management*”, Pearson Education.
5. Sunil Sharma, “*Supply Chain Management – Concepts, Practice & Implementation*”, Oxford University Press
6. N. Chandrasekaran, “*Supply Chain Management – Process, Systems and Practice*”, Oxford University Press.
7. Coyle, Bardi, and Langley, “*The Management of Business Logistics A Supply Chain Perspective*”, Thomson Asia.
8. Walters, Palgrave Macmillan, “*Logistics: An Introduction to Supply Chain Management*”.

Course Outcomes (COs):

At the end of this course students will be able to ...

1. Demonstrate knowledge of the functions of logistics and supply chain management.
2. Apply concepts and activities of the supply chain to actual organizations.
3. Explain the sequential nature of logistics and supply chain management.
4. Examine the elements leading to effective partnering and strategic sourcing relationships.
5. Produce cases of effective supply chain management and logistics implementation.
6. Explain the role of facilities, inventory, transportation and information as drivers of supply chain performance and the trade-offs associated with a responsive (agile) or efficient (lean) strategy.