

## Lecture Plan

### Department of Planning, School of Planning and Architecture, Vijayawada

**Name of Subject:** Logistics and Freight Distribution (MTP303)

Programme & Sem: Master of Transportation and Infrastructure Planning (MTIP), Semester III

Subject Coordinator: Ms. Naina Gupta, Assistant Prof., Dept. of Planning

Number of Credits: 3

Total Periods/Week: 3 (minimum Attendance Requirement 75%)

Internal Assessment (IA): 50 (minimum pass marks 40%)

End Evaluation (EE): 50 (minimum pass marks 40%)

Total Marks (IA+EE): 100 (to be converted to CGPA credit pattern as per regulations)

**Subject Objective:** To provide a comprehensive overview of the main issues related to the fields of freight transport, logistics and all relevant aspects related to freight routing, scheduling, distribution, storage and inventory management.

S.No	Date	Lecture / Session Topic (Teaching-Learning Objective aimed)	Suggested Readings
1	Week 1	<b>Concepts of logistics and supply chain:</b> Introduction to logistics and distribution, Complexity of freight demand vis a vis passenger demand, Early stages of economic development, Decision Areas in Logistics .	1. Rushton, A. et. al. (2010), The Handbook of logistics and Distribution Management, Kogan Page Limited, United Kingdom.
2	Week 2	Integrated logistics and supply chain, customer service and logistics, channels of distribution, Third party logistics (3PL), fourth party logistics (4PL), key issues and challenges for logistics.	
3	Week 3	Planning framework for logistics, logistics processes, supply chain segmentation, logistics network planning, logistics management and organization, manufacturing and materials management.	2. Kotler,P.(2008), Principles of Marketing, Pearson Education India, 2008
4	Week 4	<b>Ports and Inland Container Depot(ICD):</b> Port Performance Indicators, Planning of Inland Container Depot, Container Freight Stations, Integrated Freight Complex, Logistics hub etc.	3. Waters, D. (2010), Logistics: An Introduction to Supply chain Management, Palgrave Macmillan,New York.
5	Week 5	Internal Assessment – I: Time-Bound Closed Book Test	
6	Week 6		
7	Week 7	<b>Field Work for all semesters of UG and PG</b>	4. Ghiani, G. et. al.

8	Week 8	Types of Inventory, Inventory Cycle, Inventory Costs, Inventory Models	<p>(2004), Introduction to Logistics Systems Planning and Control, John Wiley and Sons Ltd. UK.</p> <p>5. Tseng, Y. et. al. (2005), The Role of Transportation in Logistics Chain, Proceedings of the Eastern Asia Society for Transportation Studies, Vol. 5,</p>
9	Week 9	<b>Mid-Semester Examinations</b>	
	Week 10	<b>Inventory planning and management:</b> Basic inventory planning and management, inventory and supply chain, purchasing and supply, storage and handling systems, order picking and replenishment.	
10	Week 11	<b>Warehousing:</b> Objective of Warehouse Planning, Purpose, role and operation of warehouse, types of warehouses	
11	Week 12	Principles of warehousing, warehouse design, warehouse management and information.	
12	Week 13	<b>Freight distribution and management:</b> Principles of freight distribution, management of freight traffic, freight costs and distribution economics, goods traffic forecasting, macro demand modelling for freight traffic.	
13	Week 14	Determinant of freight demand, freight demand models, Facility Location Decisions: Historical perspectives on location, single and multiple facility location models.	
15	Week 15	Internal Assessment – III : Time-Bound Closed Book Test	
16	Week 16	Transport modes selection, route selection (VRP), vehicle scheduling (TSP), Transportation Problem, fleet sizing.	
17	Week 17	<b>Emerging concepts in Logistics:</b> Just in Time (JIT), Kaizen, Third Party Logistics (3PL), Benchmarking. Reverse Logistics	
18	Week 18	Performance monitoring, benchmarking, information and communication technology in freight distribution, security and safety issues; logistics and environment	

**Note:**

1. Any other closed holidays as declared by SPAV shall supercede the above lecture plan. Holidays shown above may alter as per Notice from time to time.
2. Assessment Sessions may be re-scheduled, with prior intimation.
3. Reading lists provided is not exhaustive and is subject to addition – students are advised to follow progression of class to keep abreast of the new reading lists, if any.