



Department of Planning,
Lecture Plan, Odd Semester, AY 2026-27

Name of Course: M.Planning (Transport Planning)

Subject Name:	Logistics and Freight Distribution (MTP213)
Year & Sem:	II Year & III Semester
Course Duration:	20 July – 11 November, 2026
Course Coordinator:	Dr. Naina Gupta
Number of Credits:	3
Subject Category:	Theory
Total Periods/Week:	3 (Minimum Attendance Requirement: 75%)
Internal Assessment	50 (Minimum Pass Marks: 50%)
End Evaluation	50 (Minimum Pass Marks: 50%)
Total Marks	100
Total No. of Internal Assessment & Mode	Three Assessments (including Mid Semester Assessment) Mode of Assessment: IA-I : Open Book Test/Paper Writing, Mid Semester Assessment: Closed Book Test; IA-III: PowerPoint Presentation

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.

Week	Lecture / Session Topic (Teaching-Learning Objective aimed)	Session Mode	Reference/ Suggested Readings
20 th July	Commencement of Classes		
20 th - 24 th Jul	Introductory Awareness Building Session and Lecture: Concepts of logistics and supply chain; Integrated logistics and supply chain, Complexity of freight transport systems; key issues and challenges for logistics.	Lecture & Interactive Session	1. Rushton, A. et. al. (2010), The Handbook of logistics and Distribution Management, Kogan Page Limited, United Kingdom. 2. Waters, D. (2010), Logistics: An Introduction to Supply chain Management, Palgrave Macmillan, New York.
27 th Jul – 31 st Aug	Planning framework for logistics, logistics processes, supply chain segmentation, logistics network planning, logistics management; Decision Areas in Logistics	Lecture	3. Rodrigue, J. P. (2020). The Geography of Transport Systems. 4. Tseng, Y. et. al.(2005), The Role of Transportation in Logistics Chain, Eastern Asia Society for Transportation Studies.
03 rd – 07 th Aug	Introduction to Inventory Management and Planning - Definition, importance in SC	Lecture	5. Piasecki J. (2009): Inventory Management. A focus on forecasting, Lot



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Week	Lecture / Session Topic (Teaching-Learning Objective aimed)	Session Mode	Reference/ Suggested Readings
	management, Objectives of inventory management, Inventory classification, Inventory cost analysis, Forecasting demand		sizing, Safety Stock and ordering Systems.
10 th – 14 th Aug	Internal Assessment – I	Presentation	
17 th – 21 st Aug	Inventory Models and Optimization Techniques; Deterministic models, Stochastic models, Continuous, Periodic Review Models; Inventory control in uncertain environments	Lecture	6. Krajewski, L. J., Malhotra, M. K., & Ritzman, L. P. (2015). Operations Management. Pearson. 7. Council of Supply Chain Management Professionals and Matthew, M. / Terry L. (2014): The definitive Guide to inventory management, Pearson Education LTD, 129-152.
22 nd Aug- 5 th Sep, 2025	Field Work		
07 th – 11 th Sept	Inventory Performance Measures KPIs for inventory management: inventory turnover ratio, stockout rate, fill rate, cycle time, carrying cost; Supplier Performance	Lecture	8. Krajewski, L. J., Malhotra, M. K., & Ritzman, L. P. (2015). Operations Management. Pearson.
14 th - 18 th Sept	Mid- Semester Assessment Week		
21 st -25 th Sept	Lecture: Warehouse Planning, Purpose, role and operation of warehouse, types of warehouses; Facility Location Models	Lecture	9. Gwynne Richards (2025). Warehouse Management: The Definitive Guide to Improving Efficiency and Minimizing Costs in the Modern Warehouse
28 th Sept – 02 nd Oct	Lecture: Principles of warehousing, warehouse design, warehouse management and information; Design of Freight Terminals; Planning of Inland Container Depot,	Lecture	



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Week	Lecture / Session Topic (Teaching-Learning Objective aimed)	Session Mode	Reference/ Suggested Readings
	Container Freight Stations, Integrated Freight Complex, Logistics hub etc.; Intermodal Integration		
05 th -09 th Oct	Forecasting demand: quantitative and qualitative methods, time series analysis, causal methods; modelling for freight traffic	Lecture	10. Taniguchi, E. (2017). City Logistics: Modelling, planning and evaluation. Routledge.
12 th - 16 th Oct	Port Planning, Port Performance Indicators, Hinterland Delineation; Port Infrastructure; Maritime Logistics	Guest Lecture	
19 th – 23 rd Oct	Internal Assessment – III	MCQ based test / Classroom Discussion	
26 th – 30 th Oct	Freight distribution and management: Principles of freight distribution, management of freight traffic, freight costs and distribution economics; Transport modes selection, route selection (VRP), vehicle scheduling (TSP), Transportation Problem, fleet sizing.	Lecture	11. Bronson, R. (1982). Schaum's Outline of Theory and Problems of Operations Research.
02 nd - 06 th Nov (11 th Nov end of class work)	Emerging concepts in Logistics, Performance monitoring, benchmarking, information and communication technology in freight distribution, security and safety issues; logistics and environment	Lecture & Interactive Session	12. Ish Kumar, Vinay Maitri. (2026). Smart Freight Logistics Intelligent Transport Systems and Emerging Technologies

Details of Internal Assessments

Tentative Date/Week of the Assessment	Mode of Assessment	Marks of the Assessment
10 th – 14 th August	Poster Presentation / Classroom Discussion	<u>10 M</u>
14 th - 18 th Sept	Closed book test	<u>20 M</u>



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Tentative Date/Week of the Assessment	Mode of Assessment	Marks of the Assessment
19 th – 23 rd October	MCQ based test / Classroom Discussion	<u>20 M</u>

Additional Reference books:

1. Silver, E.A., Pyke, D.F., & Thomas, D.J. (2016). Inventory and Production Management in Supply Chains (4th ed.). CRC Press. <https://doi.org/10.1201/9781315374406>
2. Chopra, Sunil, and Peter Meindl. "Strategy, planning, and operation." Supply Chain Management 15, no. 5 (2001): 71-85.
3. Piasecki J. (2009): Inventory Management. A focus on forecasting, Lot sizing, Safety Stock and ordering Systems, 133.
4. Ramakrishna, Y., & Srivastava, B. (2024). Strategies for environmentally responsible supply chain and production management. IGI Global.

Note:

1. Any other closed holidays as declared by SPAV shall supersede 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.

Signature of the Faculty