

TRANSPORTATION AND SHIPPING LOGISTICS MANAGEMENT

Course Duration: 30 hrs (20 sessions)

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Introduction:

The course provides structured explanation and details the maritime logistics and shipping transportation. It also deals with port operations.

Course Objective:

- Explain the basics of shipping logistics
- Discuss the importance of coordination / integration in International maritime logistics
- Analyse the different requirements and the types of shipping loads based on that
- Assess the health, safety, and environmental aspects in maritime logistics
- Evaluate the different aspects related to port logistics
- Model the economics of shipping and choose the better options for profitable operations.

Target Audience: Middle Level and Senior level Management

Pedagogy/Teaching Method: Lectures, Case Studies, Demonstration of Tools and Techniques

Reference Material:

Song, D. W., & Panayides, P. (Eds.). (2015). Maritime logistics: A guide to contemporary shipping and port management. Kogan Page Publishers.

Additional References:

- Burns, M. G. (2018). Port management and operations. CRC press.
- Lun, Y. V., Lai, K. H., & Cheng, T. E. (2010). Shipping and logistics management. London: Springer.
- Song, D. P. (2021). Container logistics and maritime transport. Routledge.
- Tapaninen, U. (2020). Maritime Transport: Shipping Logistics and Operations. Kogan Page Publishers.

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Session Plan (Each Unit 1.5 Hours):

Module No.	Session No.	Topics	Readings / Case Study / Videos
Module 1: Introduction and Role of Maritime Logistics in International Trade (6 hours)	1-4	<ul style="list-style-type: none"> • Introduction to Shipping Logistics • Maritime logistics as a trade facilitator • Global trade and maritime industry 	<ul style="list-style-type: none"> • Millefiori, L. M., Braca, P., Zissis, D., Spiliopoulos, G., Marano, S., Willett, P. K., & Carniel, S. (2021). COVID-19 impact on global maritime mobility. <i>Scientific reports</i>, 11(1), 1-16.
Module 2: Coordination in Maritime Logistics (6 Hours)	5-8	<ul style="list-style-type: none"> • Intermodal freight transport and logistics • Supply chain integration of shipping companies 	<ul style="list-style-type: none"> • Wu, S., & Yang, Z. (2018). Analysis of the case of port co-operation and integration in Liaoning (China). <i>Research in transportation business & management</i>, 26, 18-25. • Lind, M., Ward, R., Bergmann, M., Haraldson, S., Zerem, A., Hoffmann, J., & Eklund, E. (2021). Maritime informatics for increased collaboration. In <i>Maritime Informatics</i> (pp. 113-136). Springer, Cham
Module 3: Types of shipping loads (4.5 Hours)	9-11	<ul style="list-style-type: none"> • Container shipping • Tanker shipping • Dry and bulk shipping logistics 	<ul style="list-style-type: none"> • Ng, M. (2019). Vessel speed optimisation in container shipping: A new look. <i>Journal of the Operational Research Society</i>, 70(4), 541-547.

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<p>Module 4: People, safety, and environmental aspects in Shipping Logistics (4.5 Hours)</p>	<p>12-14</p>	<ul style="list-style-type: none"> • Hazards and Safety on Ships and Ports • Health issues and overall wellbeing • Skill requirement in shipping logistics • Environmental impact of shipping transportation 	<ul style="list-style-type: none"> • Mallam, S. C., Nazir, S., & Sharma, A. (2020). The human element in future Maritime Operations–perceived impact of autonomous shipping. <i>Ergonomics</i>, 63(3), 334-345. • Muñoz-Villamizar, A., Velázquez-Martínez, J. C., Haro, P., Ferrer, A., & Mariño, R. (2021). The environmental impact of fast shipping ecommerce in inbound logistics operations: A case study in Mexico. <i>Journal of Cleaner Production</i>, 283, 125400.
<p>Module 5: Port Logistics (4.5 Hours)</p>	<p>15-17</p>	<ul style="list-style-type: none"> • Dry ports • Port centric logistics • Container hub ports 	<ul style="list-style-type: none"> • de Almeida Rodrigues, T., de Miranda Mota, C. M., & dos Santos, I. M. (2021). Determining dry port criteria that support decision making. <i>Research in Transportation Economics</i>, 88, 100994.
<p>Module 6: Economics of Shipping Logistics (4.5 Hours)</p>	<p>18-20</p>	<ul style="list-style-type: none"> • Principles of maritime economics • The economics of shipping 	<ul style="list-style-type: none"> • Solakivi, T., Kiiski, T., & Ojala, L. (2018). The impact of ice class on the economics of wet and dry bulk shipping in the Arctic waters. <i>Maritime Policy & Management</i>, 45(4), 530-542.

Learning Outcomes:

After completion of the course, participants would be able to:

- Understand the overall role of maritime logistics in International trade
- Analyze challenges in maritime logistics and transportation – coordination, safety, human.
- Evaluate shipping economics for profitable operations