



## Shipping Logistics Management

**Course Duration:** 30 hrs (20 sessions)

### 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.

**Session Plan (Each Unit 1.5 Hours):**

| <b>Module No.</b>   | <b>Session No.</b> | <b>Topics</b>  | <b>Readings / Case Study / Videos</b>  |
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| <b>Module 1:<br/>Introduction and<br/>Role of Maritime<br/>Logistics in<br/>International Trade<br/>(6 hours)</b> | 1-4                | <ul style="list-style-type: none"> <li>• Introduction to Shipping Logistics</li> <li>• Maritime logistics as a trade facilitator</li> <li>• Global trade and maritime industry</li> </ul>  | 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.  |
| <b>Module 2:<br/>Coordination in<br/>Maritime Logistics<br/>(6 Hours)</b>   | 5-8                | <ul style="list-style-type: none"> <li>• Intermodal freight transport and logistics</li> <li>• Supply chain integration of shipping companies</li> </ul>   | <p>Wu, S., &amp; Yang, Z. (2018). Analysis of the case of port cooperation and integration in Liaoning (China). <i>Research in transportation business &amp; management</i>, 26, 18-25.</p> <p>Lind, M., Ward, R., Bergmann, M., Haraldson, S., Zerem, A., Hoffmann, J., &amp; Eklund, E. (2021). Maritime informatics for increased collaboration. In <i>Maritime Informatics</i> (pp. 113- 136). Springer, Cham</p>  |
| <b>Module 3: Types of<br/>shipping loads (4.5<br/>Hours)</b>  | 9-11               | <ul style="list-style-type: none"> <li>• Container shipping</li> <li>• Tanker shipping</li> <li>• Dry and bulk shipping logistics</li> </ul>   | Ng, M. (2019). Vessel speed optimisation in container shipping: A new look. <i>Journal of the Operational Research Society</i> , 70(4), 541-547.   |
| <b>Module 4:<br/>People, safety, and<br/>environmental<br/>aspects in Shipping<br/>Logistics (4.5 Hours)</b>      | 12-14              | <ul style="list-style-type: none"> <li>• Hazards and Safety on Ships and Ports</li> <li>• Health issues and overall wellbeing</li> <li>• Skill requirement in shipping logistics</li> <li>• Environmental impact of shipping transportation</li> </ul> | <p>Mallam, S. C., Nazir, S., &amp; Sharma, A. (2020). The human element in future Maritime Operations—perceived impact of autonomous shipping. <i>Ergonomics</i>, 63(3), 334-345.</p> <p>Muñoz-Villamizar, A., Velázquez-Martínez, J. C., Haro, P., Ferrer, A., &amp; 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> |
| <b>Module 5: Port<br/>Logistics (4.5 Hours)</b>   | 15-17              | <ul style="list-style-type: none"> <li>• Dry ports</li> <li>• Port centric logistics</li> <li>• Container hub ports</li> </ul>   | 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.  |
| <b>Module 6:<br/>Economics of</b>   | 18-20              | <ul style="list-style-type: none"> <li>• Principles of maritime economics</li> </ul>   | Solakivi, T., Kiiski, T., & Ojala, L. (2018). The impact of ice class on the economics of wet and dry bulk   |

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| <b>Shipping Logistics<br/>(4.5 Hours)</b> |  | <ul style="list-style-type: none"><li>• The economics of shipping</li></ul> | shipping in the Arctic waters.<br>Maritime Policy & Management,<br>45(4), 530-542. |
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### **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