

| Course Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Course Title                                        | L                | T | P | C |
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| OLMBA608                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Logistics and Supply Chain Management               | 3                | 1 | 0 | 4 |
| Pre-requisite                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | NIL                                                 | Syllabus version |   |   |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                     | 1.0              |   |   |   |
| Course Objectives:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                     |                  |   |   |   |
| <div><div></div><div>1. Providing an understanding of the significance of logistics and supply chain Management in a business.</div><div>2. Developing the capability to conceptualize, design, and implement supply chains aligned with product, market, and customer characteristics and solving problems related to logistics and supply chain issues.</div></div>                                                                                                                                                                                    |                                                     |                  |   |   |   |
| Course Outcomes:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                     |                  |   |   |   |
| <div><div></div><div>1. Build an understanding of the key concepts and the strategic role of logistics and supply chain management in creating and enhancing a firm's competitive advantages.</div><div>2. Assess the significance of supply chain network design and warehouse functions.</div><div>3. Forecast, plan and manage supply and demand in a supply chain.</div><div>4. Plan and manage inventory and transportation in supply chain.</div><div>5. Assess the significance of various cross-functional drivers in a supply chain</div></div> |                                                     |                  |   |   |   |
| Module:1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Introduction to Logistics and SC management         |                  |   |   |   |
| Definition and Scope of Logistics and SC – Functions & Objectives – Customer Value Chain – Service Phases and attributes – Value added logistics services – Role of logistics and SC in Competitive strategy - Understanding the Supply Chain Performance measures -Achieving Strategic Fit and Scope-Supply Chain Drivers and Metrics-Overview of Supply Chain Challenges in India.                                                                                                                                                                     |                                                     |                  |   |   |   |
| Module:2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Designing the Supply Chain Network                  |                  |   |   |   |
| Designing Distribution Networks and Applications to Business, Network Design in the Supply Chain, Network Design in an Uncertain Environment - Warehousing Functions – Types – Warehousing decisions and facilities location – Layout Design – Material Handling Equipment and Systems-Cross Docking.                                                                                                                                                                                                                                                    |                                                     |                  |   |   |   |
| Module:3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Planning Demand and Supply in a Supply Chain        |                  |   |   |   |
| Demand Forecasting in a Supply Chain, Aggregate Planning in a Supply Chain-Sales and Operations Planning: Planning Supply and Demand in a Supply Chain-Coordination in a Supply Chain                                                                                                                                                                                                                                                                                                                                                                    |                                                     |                  |   |   |   |
| Module:4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Planning and Managing Inventories in SC             |                  |   |   |   |
| Managing Economies of Scale in a Supply Chain: Cycle Inventory-Managing Uncertainty in a Supply Chain: Safety Inventory-Determining the Optimal Level of Product Availability                                                                                                                                                                                                                                                                                                                                                                            |                                                     |                  |   |   |   |
| Module:5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Designing and Planning Transportation Networks      |                  |   |   |   |
| Role of Transportation in a SC, - Transportation System – Evolution, Infrastructure and Networks, Freight Management – Route Planning - Transportation problems – Containerization - Modal Characteristics, Inter-Modal Operators and Transport Economics. Packaging- Design considerations.                                                                                                                                                                                                                                                             |                                                     |                  |   |   |   |
| Module:6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Managing cross-functional drivers in a supply chain |                  |   |   |   |

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| Sourcing Decisions in a Supply Chain-Pricing and Revenue Management in a Supply Chain-Information Technology in a Supply Chain-Sustainability and the Supply Chain Logistics Outsourcing; Logistics Service provider – 3PL, 4PL and 5PL; Logistics Information Systems – Need, Characteristics and Design. E-Logistics – Structure and Operation. Logistics Resource Management. Automatic Identification Technologies. Reverse Logistics – Scope, Design and as a Competitive Tool. |                                                                                                                                            |            |                  |
| Module:7                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Best Practices, Innovations and Emerging trends in supply chain management                                                                 |            |                  |
| Agile, Green, Retail, Reverse, Informal economy, Digital supply chain, Managing supply chain using big data analytics and machine learning.                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                            |            |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Total Hours of Study:                                                                                                                      |            | 120 Hrs.         |
| Text Book(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                            |            |                  |
| 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Sunil Chopra, Peter Meindl, D.V. Kalra, (2015), Supply Chain Management-Strategy, Planning and Operations, 6th edition, Pearson education. |            |                  |
| 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Joel D Wisner, G. Keong Leong, Keah-Choon Tan, (2012), Supply Chain Management – A Balanced Approach, 3rd edition, Cengage Learning.       |            |                  |
| Reference Books                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                            |            |                  |
| 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Christopher M, (2011), Logistics and supply chain management: creating value-added networks, 4th edition, FT Press.                        |            |                  |
| 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Ballou R. H, (2011), Business Logistics/Supply Chain Management, 5th edition, Pearson Education                                            |            |                  |
| 3.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Robert Jacobs, Ravi Shankar, Richard Chase (2014), Operations and Supply chain Management, 14th edition, McGraw Hill.                      |            |                  |
| 4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Watson M, (2014), Supply Chain Network Design: Applying Optimization and Analytics to the Global Supply Chain, Pearson Education           |            |                  |
| Mode of Evaluation: Quiz/ Assignment/CAT/FAT                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                            |            |                  |
| Recommended by Board of Studies                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                            | 02-11-2023 |                  |
| Approved by Academic Council                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                            | No. 72     | Date: 13-12-2023 |