ADD ON COURSE 2023-24 SUPPLY CHAIN MANAGMENT Duration: 32 Hours Course code: COM-SM

Course Description:

This course provides an overview of supply chain management principles, practices, and strategies. Students will learn about the key components of supply chains, including procurement, production, logistics, and distribution. Topics include inventory management, transportation, warehousing, sourcing strategies, and supply chain integration. Through case studies, simulations, and real-world examples, students will develop skills in analysing, designing, and optimizing supply chain processes.

Course Objectives:

- 1. Understand the concept and importance of supply chain management.
- 2. Learn about the key components and processes within a supply chain.
- 3. Explore strategies for improving supply chain efficiency and performance.
- 4. Gain knowledge of inventory management techniques and optimization.
- 5. Understand the role of logistics and transportation in supply chain operations.
- 6. Analyse sourcing strategies and supplier relationships.
- 7. Develop skills in supply chain design, planning, and coordination.

Module 1: 07 Hours

Introduction to Supply Chain Management

- Definition and scope of supply chain management
- Evolution of supply chain concepts
- Importance of supply chain integration

Supply Chain Strategy

- Supply chain objectives and performance metrics
- Competitive advantage through supply chain management
- Strategic alignment with organizational goals

Procurement and Sourcing

- Strategic sourcing process
- Supplier selection and evaluation
- · Contract negotiation and management

Module 2: 07 Hours

Inventory Management

- Inventory types and costs
- Inventory control methods (ABC analysis, EOQ)
- Demand forecasting and inventory optimization

Production Planning and Operations

- Capacity planning and scheduling
- Lean manufacturing principles
- Just-in-time (JIT) and Kanban systems

Logistics and Transportation

- Modes of transportation (road, rail, air, sea)
- Freight forwarding and logistics management



Route optimization and cost minimization
 Module 3: 08 Hours

Warehousing and Distribution

- Warehouse design and layout
- Order picking and fulfilment
- Cross-docking and distribution centre operations

Supply Chain Network Design

- Network optimization models
- · Facility location and capacity planning
- Risk management in supply chain design

Information Technology in Supply Chain Management

- Role of technology in supply chain integration
- Supply chain visibility and tracking systems
- Internet of Things (IoT) applications in supply chain

Module 4: 08 Hours

Sustainable Supply Chain Management

- Environmental sustainability in supply chain operations
- Social responsibility and ethical considerations
- Circular economy and closed-loop supply chains

Supply Chain Collaboration and Integration

- Collaboration among supply chain partners
- · Vendor-managed inventory (VMI) and collaborative planning
- Integration of information systems and processes

Supply Chain Resilience and Risk Management

- Identifying and assessing supply chain risks
- Strategies for building supply chain resilience
- Business continuity planning

Textbook:

"Supply Chain Management: Strategy, Planning, and Operation" by Sunil Chopra and Peter Meindl

References:

- 1. "Introduction to Operations and Supply Chain Management" by Cecil B. Bozarth and Robert B. Handfield
- 2. "Logistics and Supply Chain Management" by Martin Christopher

