MB402: Supply Chain Management

Course Objectives:

- To introduce the major building blocks, major functions, major business processes, performance metrics, and major decisions (strategic, tactical, and operational) in supply chain networks
- To provide an insight into the role of Internet Technologies and Electronic Commerce in supply chain operations.
- To discuss technical aspects of key ITEC components in supply chain management.

Unit-I: Introduction to Supply Chain Management:

Concept, Objectives and Function of SCM-Conceptual Framework of SCM, Supply Chain Strategy- Collaboration, Demand Flow, Customer Service, Technology Integration, Problems of Complexity Confronting SCs. Global Supply Chain Management, Reverse Supply Chain, Value Chain and Value Delivery Systems for SCM, The role of Modelling, SCOR Model and Optimization in SC. Demand Planning, Forecasting, Aggregate Planning, Managing Predictable Variability, Bullwhip Effect.

Unit-II: Logistics Management:

Inbound, Internal and Outbound Logistics in SCM, Developing the Logistics Organization for Effective Supply Chain Management, Development of Integrated Logistics Strategy, Logistics in Maximizing Profitability and Cash Flow, 3PL, 4PL, International Logistics, Reverse Logistics, Sourcing of Material, Global Sourcing Issues and Problems, E-Procurement, Group Purchasing, Reverse Auctions, Supplier Partnerships, Multi-Tier Supplier Partnerships. Inventory Management in Supply Chain Distributed Management, Packing for Logistics, Packing and Repacking.

Unit-III: Transportation in SC:

Transportation Formats, Modes of Transportation, Factors Affecting Transportation Performance, Factors Influencing the Selection of Transporter, Fleet Management, Inter Model Transport, Containerization, Vehicle Scheduling and Routing, Milk Run and Cross Docking, Warehousing-Types of Warehouses, Warehousing Operations, Warehouse Automation, Warehouse Management Systems, Third Party and Value Added Warehousing, Stores Management.

Unit-IV: Strategic Issues in Supply Chains:

Strategic Partnerships, Alliances and Collaborative Advantage, Strategic Relationships in Logistics, Handling Systems, Warehousing Equipment, PPP Environment, Lean Manufacturing, Agile Manufacturing, Elements of Lean Manufacturing, Integration of Lean Manufacturing and SCM, Mask Customization, Drivers for Mass Customization.

Unit-V: SC Network Design:

Distribution Network in SC, Channel Design, Factors Influence Design, Options in Distribution Network, Role and Importance of Distributors in SCM, SC Integration-Internal and External, Retail SCM-Inventory, Role of Human Resources in SCM. Supplier Chain Relationships, Customer Relationship Management, Customer Service Strategy, RFID, Bar Coding.

Suggested Books:

1. Shah, J, "Supply Chain Management", 2009, 1st Ed. Pearson.
2. Crandall, Richard E & others, "Principles of Supply Chain Management", 2010, CRC Press.
3. Mohanty, R.P and Deshmukh, S.G, "Essentials of Supply Chain Management", 2009, 1st Ed.
4. Jaico, Chandrasekaran. N, "Supply Chain Management process, system and practice", 2010, Oxford, 1st Ed.
5. Altekar, V. Rahul, "Supply Chain Management", 2005, PHI.

Course Outcomes :

- Understand fundamental supply chain management concepts.
- Apply knowledge to evaluate and manage an effective supply chain.
- Understand the foundational role of logistics as it relates to transportation and warehousing.
- How to align the management of a supply chain with corporate goals and strategies. Analyze and improve supply chain processes.