

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E Semester: 2

Mechanical Engineering (Advanced Manufacturing Systems)

Subject Name: **Supply Chain Management (Major Elective II)**

Subject Code: **1725005**

Sr_No	Content
1.	Understanding the Supply Chain: What Is a Supply Chain?, The Objective of a Supply Chain, The Importance of Supply Chain Decisions, Decision Phases in a Supply Chain, Process View of a Supply Chain
2.	Supply Chain Performance: Achieving Strategic Fit and Scope: Competitive and Supply Chain Strategies, Achieving Strategic Fit, Expanding Strategic Scope
3.	Supply Chain Drivers and Metrics: Drivers of Supply Chain Performance, Framework for Structuring Drivers, Facilities, Inventory, Transportation, Information, Sourcing, Pricing, Obstacles to Achieving Fit
4.	Designing Distribution Networks: The Role of Distribution in the Supply Chain, Factors Influencing Distribution Network Design, Design Options for a Distribution Network
5.	Network Design in the Supply Chain: The Role of Network Design in the Supply Chain, Factors Influencing Network Design Decisions, Framework for Network Design Decisions, Models for Facility Location and Capacity Allocation
6.	Demand Forecasting in a Supply Chain: The Role of Forecasting in a Supply Chain, Characteristics of Forecasts, Components of a Forecast and Forecasting Methods, Basic Approach to Demand Forecasting, Time-Series Forecasting Methods, Measures of Forecast Error
7.	Aggregate Planning in a Supply Chain: The Role of Aggregate Planning in a Supply Chain, The Aggregate Planning Problem, Aggregate Planning Strategies
8.	Coordination in a Supply Chain: Lack of Supply Chain Coordination and the Bullwhip Effect, The Effect on Performance of Lack of Coordination, Obstacles to Coordination in a Supply Chain, Managerial Levers to Achieve Coordination, Building Strategic Partnerships and Trust Within a Supply Chain, Continuous Replenishment and Vendor-Managed Inventories, Collaborative Planning, Forecasting, and Replenishment (CPFR)

Text Book:

1. Supply Chain Management: Strategy Planning and Operation, Chopra Sunil, Meindler Peter and Kalra D. V., Pearson Education

Reference Books:

1. Supply Chain Management Theories and Practices(Set) by R.P. Mohanty and S. G. Deshmukh , Biztantra Publication.
2. Logistics and Supply Chain Management, Martin Christopher, Richard Irwin
3. Supply Chain Management: Janat Shah, Pearson Education