

GUJARAT TECHNOLOGICAL UNIVERSITY

B. E. SEMESTER: VII

PRODUCTION ENGINEERING

Subject Name: **Supply Chain Management (Department Elective – I)**

Subject Code: **172505**

Teaching Scheme				Evaluation Scheme			
Theory	Tutorial	Practical	Total	University Exam (E)		Mid Sem Exam (Theory) (M)	Practical (Internal)
				Theory	Practical		
3	2	0	5	70	30	30	20

Sr. No	Course Content	Total Hrs.
1.	Introduction Introduction, Generic Types of supply chain, Various Definitions and Implications, Major Drivers of Supply chain.	02
2.	Strategic Decisions- in Supply Chain Management Introduction, Business Strategy, Core Competencies in Supply Chain, Strategic SC Decisions, Customer Relationship Management Strategy, Supplier Relationship Management Strategy	05
3.	Source of Management in Supply Chain Introduction, Elements of Strategic Sourcing, A Collaborative Perspective, Development of Partnership.	04
4.	Inventory Management in Supply Chain Introduction, Types of Inventory, Supply/ Demand Uncertainties, Inventory costs, Selective Inventory Control, Vendor Manage Inventory system, Inventory Performance Measure.	05
5.	Logistics In Supply Chain Management Introduction, Strategy, Transportation Selection, Trade-off, Models for Transportation and Distribution, Third Party Logistics,, Overview of Indian Infrastructure for Transportation.	04
6.	Information Technology in Supply Chain Introduction, Types of IT Solutions like Electronic Data Inter change (EDI), Intranet/ Extranet, Data Mining/ Data Warehousing and Data Marts, E-Commerce, E- Procurement, Bar Coding Technology.	04

7.	Information System in Supply Chain Introduction, Computer Based Information Systems, Computer Models and Perceptions about ERP, ERP & SCM.	03
8.	Application of Mathematical Modeling in Supply Chain Introduction, Modeling, Consideration in Modeling SCM System, Structuring the Logistic chain, Concept of Modeling.	04
9.	Reverse Supply Chain Introduction, Reverse Supply Chain v/s Forward Supply Chain, Types of Reverse Flows, Issues in Management of Reverse Supply Chain, Reverse Supply Chain for Food items, Reverse Logistic and Environment Impact.	03
10.	Integration & Collaborative Supply Chain Introduction, Evolution of collaborative SCM, Efficient Customer response, Collaboration at various levels, Imperatives for Successful Integrative Supply Chains.	03
11.	Agile Supply Chain Introduction, Source of Variability, Characteristics of Agile Supply Chain, Achieving Agility in Supply Chain.	03
12.	Cases of Supply Chain Cases of Supply Chain like, News Paper Supply Chain, Book Publishing, Mumbai Dabbawala, Disaster management, Organic Food, Fast Food.	02

Text Books:

1. Supply Chain Management Theories & Practices, R. P. Mohanty, S. G. Deshmukh, Dreamtech Press, 19-A, Anari Road, Daryaganj, New Delhi

Reference Books:

1. Supply Chain Management Strategy, Planning & Operation by Sunil Chopra, Peter Meindl
2. Total Supply Chain Management by Ron Basu, J. Nevan Wright
3. Supply Chain Management, Chopra, Pearson
4. Logistics Engineering and Management, Blanchard, pearson