B.E Semester: 8 Mechanical Engineering
Subject Name: Supply Chain Management (ME804-N-F) [Dept. Elect.-6]

A. Course Objective:
• The course aims to impart basic skills of supply chain management.

B. Teaching / Examination Scheme:

Teaching Scheme				Total Credit	Evaluation Scheme					
L	T	P	Total		Theory		Mid Sem Exam	CIA	Pract.	Total
Hrs	Hrs	Hrs	Hrs		Hrs	Marks	Marks	Marks	Marks	Marks
3	0	0	3	3	3	70	30	20	0	120

C. Detailed Syllabus:

Unit No.	Details
1	**Introduction** Introduction, Generic Types of supply chain, Various Definitions and Implications, Major Drivers of Supply chain. **Strategic Decisions- in Supply Chain Management** Introduction, Business Strategy, Core Competencies in Supply Chain, Strategic SC Decisions, Customer Reletationship Management Strategy, Supplier Relationship Management Strategy **Source of Management in Supply Chain** Introduction, Elements of Strategic Sourcing, A Collaborative Perspective, Development of Partnership.
2	**Inventory Management in Supply Chain** Introduction, Types of Inventory, Supply/ Demand Uncertainties, Inventory costs, Selective Inventory Control, Vendor Manage Inventory system, Inventory Performance Measure **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
3	**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. **Information System in Supply Chain** Introduction, Computer Based Information Systems, Computer Models and Perceptions about ERP, ERP & SCM
4	**Application of Mathematical Modeling in Supply Chain** Introduction, Modeling, Consideration in Modeling SCM System, Structuring the Logistic chain, Concept of Modeling.
5	**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.
	Integration & Collaborative Supply Chain
	Introduction, Evolution of collaborative SCM, Efficient Customer response, Collaboration at various levels, Imperatives for Successful Integrative Supply Chains.
6	**Agile Supply Chain**
	Introduction, Source of Variability, Characteristics of Agile Supply Chain, Achieving Agility in Supply Chain.
	Cases of Supply Chain
	Cases of Supply Chain like, News Paper Supply Chain, Book Publishing, Mumbai Dabbawala, Disaster management, Organic Food, Fast Food.

Total hours (Theory):48
Total hours (Practical):00
Total hours:48

D. Lesson Planning:

Sr. No.	Date/Week	Unit	Weight age	Topic No
1	1st ,2nd ,3rd	Unit 1	20%	1
2	4th .5th ,6th	Unit 2	20%	2
3	7th , 8th ,9th	Unit 3	20%	3
4	10th .11th . 12th	Unit 4	20%	4,5
5	13th , 14th ,15th,16th	Unit 5	20%	6

E. Instructional Method & Pedagogy

1	At the start of course, the course delivery pattern , prerequisite of the subject will be discussed
2	Lecture may be conducted with the aid of multi-media projector, black board, OHP etc. & equal Weight age should be given to all topics while teaching and conduction of all examinations.
3	Attendance is compulsory in lectures and laboratory, which may carries five marks in overall evaluation.
4	One/Two internal exams may be conducted and total/average/best of the same may be converted to equivalent of 30 marks as a part of internal theory evaluation.
5	Assignment based on course content will be given to the student for each unit/topic and will be evaluated at regular interval. It may carry an importance of ten marks in the overall internal evaluation.
6	Surprise tests/Quizzes/Seminar/Tutorial may be conducted and having share of five marks in the overall internal evaluation.
7	The course includes a laboratory, where students have an opportunity to build an appreciation for the concept being taught in lectures.

F. Students Learning Outcomes:

1	Understand about SCM.
2	Implement information system in supply chain.
3	Analyze Mathematical modeling of Supply Chain.
4	Understand basics of Reverse & Agile supply chain.
5	Analyze various case studies on supply chain.

G. Text Books & Reference Books:

1	Supply Chain Management Theories & Practices, R. P. Mohanty, S. G. Deshmukh, Dreamtech Press, 19-A, Anari Road, Daryaganj, New Delhi
2	Supply Chain Management Strategy, Planning & Operation by Sunil Chopra, Peter Meindl
3	Total Supply Chain Management by Ron Basu, J. Nevan Wright
4	Supply Chain Management, Chopra, Pearson
5	Logistics Engineering and Management, Blanchard, pearson