



FACULTY OF ENGINEERING & TECHNOLOGY

Third Year Bachelor of Engineering

Branch: Automobile Engineering /Mechanical Engineering/Mechatronics

Course Code: 102090622

Course Title: Supply Chain Management

Type of Course: Open Elective

Course Objectives: This open elective course intends to make students understand and appreciate the importance of Supply Chain Management in the industrial and business systems. Students will be able to understand processes of logistics, sourcing and procurement, current and world class supply chain management practices as well as impact of IT in supply chain operations.

Teaching & Examination Scheme:

Contact hours per week			Course Credits	Examination Marks (Maximum / Passing)				
Lecture	Tutorial	Practical		Internal		External		Total
				Theory	J/V/P*	Theory	J/V/P*	
3	0	0	3	40 / 14	--	60 / 21	--	150 / 35

* J: Jury; V: Viva; P: Practical

Detailed Syllabus:

Sr.	Contents	Hours
1	Introduction: Definitions of Logistics and Supply Chain Management, Evolution of Supply Chain Management, Objectives of SCM, Supply Chain network and flow of materials and information, Logistics and Distribution Channels, Different modes of transportation, Logistics Management Concepts – Total Logistical Cost V/s. Customer Service, Efficiency V/s. Responsiveness in SCM, Supply Chain Drivers/Enablers, Glimpses of SC magnitude and potential, SCM decision making – Strategic, Tactical and Operational.	6
2	SCM Dynamics and Alignment: SCM alignment processes with customer order-management system, Supply chain integration through push-pull mechanism, Bullwhip effect: concept, causes and remedies.	6
3	Supply Chain Sourcing Practices: Procurement, Purchasing, Supply Management, and Strategic Sourcing, Make versus Buy Decisions, Supplier Selection, Rating and Development, Sourcing Best Practices	10
4	World-class best practices in SCM: Supplier tierization, Reverse logistics, Vendor-managed inventory (VMI), Milk round system, Hub and spoke, Third and Fourth party logistics (3PL and 4PL), Cross docking, Drop shipping, Trans-shipment, Risk-pooling, Bar coding and RFID, Lean	6



	operations.	
5	Customer Relationship Management: Concept of CRM and its linkage with SCM, Concept, practices and implications of techniques, such as Value Added Services and Strategic Pricing.	6
6	Information Technology in SCM: Need and role of IT in SCM, ERP and SCM, Trends and future of IT in SCM.	5
7	Performance Measures of SCM: Introduction to Traditional and Contemporary Approaches of SCM performance measurement	6
	Total	45

Suggested Specification table with Marks (Theory) (Revised Bloom's Taxonomy):

Distribution of Theory Marks						R: Remembering; U: Understanding; A: Application, N: Analyze; E: Evaluate; C: Create
R	U	A	N	E	C	
20%	20%	20%	20%	20%	0%	

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Reference Books:

1	Supply Chain Management- Concepts, Practices, and Implementation by Sunil Sharma, Oxford University Press
2	Supply Chain Management- Processes, System and Practice by N. Chandrasekaran, Oxford University Press
3	Supply Chain Management: Strategy, Planning and Operation, by Sunil Chopra and Peter Meindl, Prentice Hall of India
4	Operations Management; Contemporary Concepts and Cases by Shroeder, G., McGraw Hill publication
5	Business Logistics/ Supply Chain Management by Ballou, Donald and Shrivastava, Person Education

Course Outcomes (CO):

Sr.	Course Outcome Statements	% Weightage
CO-1	Appreciate the importance of logistics and supply chain management in overall success of any business/industrial sector.	20
CO-2	Appreciate the importance and dynamics of supply chain management in any business/industrial sector.	20
CO-3	Know the world class best practices being carried out in supply chain management and impact of IT in supply chain management.	25
CO-4	Understand the sourcing, procurement, supplier selection and development process, pricing strategies and impact of customer relationship management in supply chain management.	25
CO-5	Know how to measure the performance of supply chain operations.	10



Supplementary learning Material:

1	NPTEL resources
2	Coursera resources

Curriculum Revision:

Version:	1
Drafted on (Month-Year):	April -22
Last Reviewed on (Month-Year):	
Next Review on (Month-Year):	