



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal - 500 043, Hyderabad, Telangana

COURSE CONTENT

LOGISTICS AND SUPPLY CHAIN MANAGEMENT								
III Semester: MBA								
Course Code	Category	Hours / Week			Credits	Maximum Marks		
CMBE27	Core	L	T	P	C	CIA	SEE	Total
		4	-	-	4	40	60	100
Contact Classes: 45	Tutorial Classes: Nil	Practical Classes: Nil			Total Classes: 45			
Prerequisite: Marketing Management								
SDGs Mapped: SDG 9 (Industry, Innovation and Infrastructure), SDG 12 (Responsible Consumption & Production)								

I. COURSE OVERVIEW:

The course brings the knowledge in terms of basic concept of supply chain concepts and logistics. The course also gives exposure on competitive advantage and its uses and supply chain management and its focus areas and also to know the measurement of logistics performance and various kinds of cost drivers associated in logistics performance, the course also gives the focus on supply chain and logistics relationships and strategies applied in benchmarking. The course provides the knowledge about the various sourcing decisions and transporting methods and pricing of products and finally how to get the competitive advantage in the area of logistics by managing global logistics and global supply chains.

II. COURSES OBJECTIVES:

The students will try to learn:

- I. The fundamental concepts of supply chain management, its objectives, strategies, drivers, and best practices to enhance value creation and sustainability.
- II. The role and functions of logistics in supply chain operations, including transportation, distribution, outsourcing, and reverse logistics for achieving competitive advantage.
- III. The methods for designing and optimizing supply chain networks by considering distribution roles, influencing factors, and technology-driven models.
- IV. How to evaluate and improve supply chain performance by addressing issues such as the bullwhip effect, coordination challenges, global supply chain complexity, and IT-driven solutions like Supply Chain 4.0.

III. COURSE OUTCOMES:

At the end of the course students should be able to:

- CO1 Appraise one's competitive strategy through the application of logistics in business.
- CO2 Narrate about the measurement of logistics effectiveness to take corrective actions.
- CO3 Examine the performance of logistics for optimum utilization to obtain competitive advantage.
- CO4 Identify different kinds of supply chain relationship operations associated with the business organizations for maintaining effective supply chain relations.
- CO5 Appraise on the effective channel maintenance and structure for facilitating the commodities available at destination points.
- CO6 Organize the sourcing and transporting decisions for the propose minimizing the transporting cost and cost of purchase.

IV. COURSE CONTENT:

MODULE – I: UNDERSTANDING SUPPLY CHAIN (08)

Objectives of a Supply Chain, Importance, Stages of Supply Chain, Value Chain Process, Cycle View of Supply Chain Process, Key Issues in SCM, Logistics & SCM, Supply Chain Drivers and Obstacles, Supply Chain Strategies, Strategic Fit, Best Practices in SCM, Obstacles of Streamlined SCM, Green Supply Chain Management, Supply Chain Sustainability.

MODULE – II: LOGISTICS (09)

Evolution, Objectives, Components and Functions of Logistics Management, Difference between Logistics and Supply Chain, Distribution related Issues and Challenges. Gaining Competitive Advantage through Logistics Management, Transportation: Functions, Costs, and Mode of Transportation Network and Decision, Models, Containerization, Cross Docking, Reverse Logistics. Outsourcing: Nature and Concept, Strategic Decision to Outsourcing, Third-party Logistics (3PL), Fourth-party Logistics (4PL).

MODULE – III: DESIGNING THE SUPPLY CHAIN NETWORK (10)

Designing the Distribution Network, Role of Distribution, Factors Influencing Distribution, Design Options, e-Business and its Impact, Distribution Networks in Practice.

Network Design in the Supply Chain, Role of Network, Factors Affecting the Network Design Decisions, Modeling for Supply Chain.

MODULE – IV: SUPPLY CHAIN PERFORMANCE (10)

Bullwhip Effect and Reduction, Performance Measurement: Dimension, Tools of Performance Measurement, SCOR Model. Demand Chain Management, Global Supply Chain, Challenges in Establishing Global Supply Chain, Factors that influence Designing Global Supply Chain Network.

MODULE – V: COORDINATION IN A SUPPLY CHAIN (08)

Importance of Coordination, Lack of Supply Chain Coordination and the Bullwhip Effect, Obstacles to Coordination, Managerial Levels, Building Partnerships and Trust, Continuous Replenishment and Vendor Managed Inventories, Collaborative Planning, Forecasting and Replenishment. Role of Information Technology in Supply Chain, Supply Chain 4.0.

V. TEXT BOOKS:

1. IMT Ghaziabad Advanced Supply Chain Management, Sage Publications, 2021.
2. Rajat K. Basiya, Integrated Supply Chain Management, Sage Publications, 2020.
3. K Sridhara Bhat, Logistics & Supply Chain Management, HPH, 1e, 2017.
4. Chopra, Sunil, Meindl, Peter and Kalra, D. V., Supply Chain Management: Strategy, Planning and Operation; Pearson Education, 6e, 2016.

VI. REFERENCE BOOKS:

1. Altekhar, Rahul V, Supply Chain Management: Concepts and Cases; PHI Learning, 1e, 2005.
2. Ballou, R.H. Business Logistics Management. Pearson Education, 5e, 2014.
3. Coyle, Bardi, Langley, “The Management of Business Logistics – A Supply Chain Perspective”, Thomson Press, 7e, 2003.

VII. WEB REFERENCES:

1. <http://www.ijcse.com/docs/IJCSE11-02-01-054.pdf>
2. <http://www.pitt.edu/~druzdzal/psfiles/dss.pdf>

VIII. E-TEXT BOOKS:

1. [https://www.scribd.com/doc/252519209/Decision-Support-Systems-and-Intelligent-Systems-7th- Edition-Free-eBook-Download](https://www.scribd.com/doc/252519209/Decision-Support-Systems-and-Intelligent-Systems-7th-Edition-Free-eBook-Download)
2. <http://link.springer.com/book/10.1007%2F978-3-540-48713-5>
3. <https://www.jerrypost.com/Books/MISBook/Bookfiles5/Chapters/MISPost-Preface-500.pdf>

4. https://www.researchgate.net/profile/Javed-Saani/publication/340647719_Management_Information_Systems/links/5eb7f7fe299bf1287f782bb5/Management-Information-Systems.pdf
5. https://repository.dinus.ac.id/docs/ajar/Kenneth_C.Laudon,Jane_P_.Laudon_Management_Information_Sysrem_13th_Edition_.pdf