

Course Type	Course Code	Name of the Course	L	T	P	Credits
DE	NMSD504	Materials Management	3	0	0	3

Course Objective

The objectives of this course are:

- to impart functional knowledge of Materials Management, including Procurement, Inventory Control, and Warehousing;
- to provide theoretical and practical exposure for the application of such concepts

Learning Outcomes

- The course helps to understand the fundamentals of Materials Management.
- At the end of this course, students can decide on practical aspects of Materials Management like purchasing, inventory management, and warehouse management.

Unit No.	Topics to be Covered	Lecture Hours	Learning Outcome
1	Objectives, Functions, and need for an integrated approach to Materials Management; Materials Planning & Budgeting; Codification and Standardization of materials; Sourcing of materials & purchasing; Procedures adopted for purchasing; Supplier Rating	6	To understand the concept of materials management and the importance of purchasing for the efficient functioning of an organization.
2	(a) Inventory management & associated costs; EOQ models available for inventory management;	6	To develop an insight into the inventory management of an organization.
	(b) P-System, Q-System, and Two-bin inventory management system;	6	
	(c) Probabilistic Inventory model; inventory classification using various analyses, like ABC, VED analysis, etc.	6	
3	Importance of Stores management; Records maintained for Stores Management; Stores accounting and control	6	To develop an insight into the store's management of an organization.
4	Concept of Learning Curve and its application; Concept and application of MRP-I; MRP-II, and ERP its application	6	To develop an understanding of the latest materials management techniques.
5	JIT System and its application in Material management; Lean Management; Circularity and sustainable stores management; Materials Accounting and Information Systems	6	To understand the importance of lean materials management and JIT concepts in inventory management
	Total	42	

Text Books:

- Materials Management: An Integrated Approach by P. Gopalakrishnan and M. Sundaresan.
- Purchasing and Materials Management by P. Gopalakrishnan

Reference Books:

- Materials Management: Text, Cases, and Procedures by A.K. Dutta.