

GUJARAT TECHNOLOGICAL UNIVERSITY
B. E. SEMESTER: VI
Industrial Engineering

Subject Name: **Materials Management**
 Subject Code: **161501**

Teaching Scheme				Evaluation Scheme		
Theory	Tutorial	Practical	Total	University Exam (Theory) (E)	Mid Sem Exam (Theory) (M)	Practical (I)
4	0	2	6	70	30	50

Sr. No	Course Content	Total Hrs.
1.	Introduction to materials management : Role, scope and importance of material control function, materials management in organization, cost aspects, materials management organization, specifications of materials, standardization and variety reduction, waste control, materials research, incoming materials control	10
2.	Stores Management: Layout of stores and warehouse, material handling in stores, physical control of stocks : obsolete, surplus and scrap management, accounting and record keeping of stores, classification, coding and codification systems, Case studies	18
3.	Purchasing Management: Purchasing functions and purchasing systems, ABC analysis and VED analysis in purchasing, make or buy decision, selection of sources and vendor rating, legal aspects of purchasing, materials budget, organization for buying. Imports Exports policy, procurement in shortage situation, estimation of dependent and independent demands, lead time analysis, buffer stock, materials requirement planning for organization, Purchasing and quality assurance, International buying and import purchasing, Case studies	22
4.	Inventory models: Inventory management & control systems, EOQ, concepts, type of inventory models-deterministic and probabilistic.	14

Reference Books:

1. Materials Management Procedures, text and cases by AK Datta, PHI Publication
2. Material management an integrated approach by Gopalkrishnan & Sundarsan, PHI Publication
3. Materials management by Immer D.S.
4. Rationalizing Materials management – Datta A. K.
5. Materials management and OR in India by P.G.Manon
6. Materials management by N.K.Nair.
7. Purchasing principles & Techniques by Buity, P.J.H.and Farmer
8. Purchasing management by Borry H.A.
9. Inventory management in India by R. S. Chadda
10. Inventory management by Enrick N.L.
11. Stores accounts & stores control by Burten J.H.