

Materials Management
Sem III

> **Course Content:**

Semester	III Core
Subject	Materials Management
Course Code	MMSOC305 (RGCMS)
Credits	4
Duration	40

Learning Objectives	
1	Importance of Materials Management w.r.t. Business
2	Learning various aspects of Purchase & warehousing
3	Understanding documents control w.r.t. Material movement
4	Materials planning with quantitative models
5	Financial aspects of Materials Management
6	Importance of Ethics in Materials Management

Prerequisites if any	Operations Management, Operations Research
Connections with Subjects in the current or Future courses	Supply Chain Management, MRPC

Module

Sr. No.	Content	Activity	Course Outcome
1.	Introduction, Importance of Materials Management Objectives of Materials Management Costs involved in the Management of Materials e) Integrated approach to Materials Management Organizing Materials Management. Organization based on Commodities/Location/function Centralized versus Decentralized materials management. a) Introduction and factors influencing materials planning b) Techniques of materials planning Introduction and objectives of classification. Basis of classification. Classification based on nature of materials.	Case Study/ Role-play/ Drama/ Group Discussion	MMSOC305.1
2.	Purchasing principles, policies, procedures and practices Objectives, scope, responsibility and limitations Sources of supply and Supplier selection. Supplier Quality Assurance Programme Buyer Supplier Relationship Self certified suppliers.	Case Study/ Role-play/ Drama/ Group Discussion	MMSOC305.2

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	<p>Elements of procurement cycle. Detailed understanding of Purchase Process Significant differences Considerations in evaluation of bids Purchase of used equipment Sources of used equipment Purchase versus lease. Role of Purchasing Committees/ Purchase Managers International commercial terms. Import procedures and documentation. Categories of importers. Identification of foreign sources. Payment terms including Letter of credit. Types of L/Custom tariff Custom clearance. Bill of Lading and other documents a) Introduction and functions of scientific store management. Types of stores and benefits of scientific storekeeping. Store location and layout. Typical layout plans Storing practices and identification of materials. Centralization and Decentralization of stores. Preservation of materials Issue control.</p>		
3.	<p>Introduction Benefits of codification. Stages of scientific codification. Systems of codification. Colour coding Understanding the impact codification on computerization & decision making Introduction and different levels of standards (BIS, ISI) Various Foreign Standards in use in India. How is an Indian standard evolved? Advantages of Standardization. Standardization as a tool for variety reduction The Role of Materials Management (Purchase/Stores) in Standardization/ Variety Reduction. Definition Need for Scrap yard Identification and control. Categorization of obsolete/ surplus. Control of scrap/ obsolescence. Responsibility for disposal. Procedures and documentation for disposal of scrap/ obsolete/ surplus.</p>	Case Study/ Role-play/ Drama/ Group Discussion	MMSOC305.3
4.	<p>d) Price forecasting Price-cost analysis Negotiations Reciprocity Legal aspects of purchasing Purchase orders/ contracts Method of buying- under certainty, under risk, and under uncertainty</p>	Case Study/ Role-play/ Drama/ Group Discussion	MMSOC305.4

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	ABC analysis problem on excel sheet with at least 20 materials		
5.	<p>Bill-of-Materials Materials Requirement Planning (MRP). Past Consumption Analysis Technique</p> <p>Classification based on usability of materials. f) Types of inventories. Costing of Receipt of Materials. Costing of Issues to Production. Stock verification Periodic Verification. Perpetual Verification. Process of Verification Basic introduction to Materials handling)20 Principles of Material Handling b) Palletisation c) Containerization d) Transportation Modes / Attributes e) Transportation mix in Economy f) Total cost concept in Material Handling and Transportation</p>	Case Study/ Role-play/ Drama/ Group Discussion	MMSOC305.5
	<p>Importance of Ethics Business, Ethics in buying</p> <p>Code of ethics Problems in Ethics Backdoor selling</p>	Case Study/ Role-play/ Drama/ Group Discussion	

II> Course Outcomes

Code	Course Outcome	Cognition
MMSOC305.1	Understand materials management, purchase process and MRP on financial stability	Understand
MMSOC305.2	Understand the basics of purchase of capital equipment, international procurement, material receipts and warehousing	Understand
MMSOC305.3	Understand codification, standardization, ethics in materials management and materials handling	Understand
MMSOC305.4	Analyze purchasing, obsolete, surplus and scrap management	Analyze
MMSOC305.5	Apply classification of materials, stores accounting and stock verification	Apply

Textbooks

1	Purchasing and Materials Management	P. Gopalakrishnan (Tata McGraw Hill, New Delhi).
2	Materials Management – An integrated approach	P. Gopalakrishnan and M. Sundaresan (Prentice-Hall India, New Delhi).
3	Purchasing Management	Datta
4	Purchasing Management	Nair

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Reference books

1	Materials and Logistics Management	Prof. L.C. Jhamb (Everest Publishing House,Pune).
2	Introduction to Materials Management	JR Tony Arnold and Stephan Chapman (PearsonEducation, New Delhi) 2004 Fifth Edition.
3	Purchasing and Materials Management	N.K.Nair (Vikas Publishing House, NewDelhi).