



Autonomous (2016-17)

Malad Kandivli Education Society's

NAGINDAS KHANDWALA COLLEGE

OF COMMERCE, ARTS & MANAGEMENT STUDIES

AND SHANTABEN NAGINDAS KHANDWALA COLLEGE OF SCIENCE

(Re-accredited (3rd cycle) by NAAC with 'A' Grade)

ISO 9001 : 2015 Certified

Educational Excellence Award By Indus Foundation, U.S.A.

IMC Ramkrishna Bajaj National Quality Commendation Certificate

New Courses introduced

2017-18 to 2020-21

**DR. (MRS.) ANCY JOSE
PRINCIPAL**



5. Material Handling

Modules at a Glance

Sr. No.	Modules	No. of lectures
1	Introduction	9
2	Types of Material Handling Equipment	9
3	Material Requirement Planning (MRP)	9
4	Quality control of material	9
5	Health and Safety	9
	Total	45

Objectives:

1. To develop competencies and knowledge of students to become effective professionals
2. To orient students on recent changes and development in the field of material management
3. To help Students to understand basic Principles and concept of material Management

Learning Outcome:

After the successful completion of course, learner will be able to:

CO1: Understand the scope and importance for handling materials. (Level: Understand)

CO2: Describe the different types of Material Handling Equipment (Level: Understand)

CO3: Apply the knowledge about material management in the real-life business situation (Level: Apply)

CO4: Enhance their managerial ability and professional skills (Level: Apply)

Detailed Syllabus:

Sr. No.	Modules / Units	No of Lectures
1	Introduction: Introduction: Materials Management - Evolution, Importance, Scope and Objectives- Interface with other functions. Concept of Logistics and Supply Chain Management and evolution to 4PL -Supply Chain Management Objectives, Components, Significance, Trade off Customer Service & Cost.	9
2	Types of Material Handling Equipment Storage and Handling Equipment: -Racks, Bins and Drawers., Stacking Frames, Shelves, Mezzanines. Transport Equipment: Conveyors, Cranes, Lifts and elevators. Engineered Systems: Automated Guided Vehicles (AGVs), Automated Storage and Retrieval Systems (AS/RS), Conveyor Systems, Robotic Delivery System. Bulk Material Handling Equipment, Stackers and Reclaimers., Hoppers and Silos.	9
3	Material Requirement Planning (MRP) Material Requirement Planning (MRP) - Advantages over conventional planning (Order Point Method) – Input and output of MRP system - Forecasting - Overview of quantitative and qualitative methods of forecasting - Master Production Schedule - Bill of Materials - BOM Explosion - Material flow in MRP. MRP II. Concept of ERP. (Numerical likely on BOM Explosion, estimating Net requirements). Design of Material Handling Systems. The Unit Load Concept-In-Process Handling-Distribution.	9
4	Quality control of material Quality control of material: Incoming material quality control- statistical quality control- governmental purchasing practices and procedures -Inventory control & Cost Reduction techniques: Inventory turns ratios-Standardization – need and importance. Codification – concept, benefits. Value Engineering and Value Analysis – concept and process.	9
5	Health and Safety Materials handling and storage systems, Physical distribution logistics- transportation, Traffic and claims management- operations research and related techniques- Principles of Materials Handling system - Materials Handling Equipment – Safety issues.	9

Reference Books

1. Course Material Prepared by LSC
2. Materials management: procedures, text and cases - A.K. Datta
3. Materials management: An integrated approach - P. Gopalakrishnan
4. Introduction to Materials management - J.R. Tony Arnold & Stephen N. Chapman
5. Materials & Logistics Management - L.C. Jhamb