Program	Master of Business Administration (MBA)	**Semester - 4**
Type of Course	Major	
Prerequisite		
Rationale	-	
Effective From A.Y.	2024-25	

Teaching Scheme (Contact Hours)				Examination Scheme				
				Theory Marks		Practical Marks		
Lecture	**Tutorial**	**Lab**	**Credit**	**T**	**T**	**P**	**P**	**Total Marks**
4	-	-	4	50	30	-	-	150

***SEE** - Semester End Examination, **T** - Internal Theory, **P** - Internal Practical*

Course Content

T - Teaching Hours | **W** - Weightage

Sr.	Topics	T	W
1	**Module-I**	**15**	**25**

Materials Management:
- The Operating environment
- Meaning, objectives and functions of materials management
- Costs involved
- Advantages of integrated materials management
- Concept of stores and warehousing

Classification and codification of materials:
- Need for classification and identification
- Classification of materials
- Nature and process of Codification systems
- Codification systems
  - o Arbitrary, numerical, Mnemonic, Decimal, Brisch, Kodak
- Stores vocabulary, marking of stores

Standardization, Simplification and Specialization:
- Objectives of specification
- Characteristics of specification
- Development of specifications
- Problems in specifications
- Definition of standards
- Different dimensions and levels of standards
- Benefits of standardization
- Advantages of variety reduction
- Techniques of variety reduction
  - o Sales contribution analysis
  - o Consumption analysis
  - o Renard Series
- Simplification Warehousing:
- Warehousing management
  - o Warehouse activities
  - o Space utilization and accessibility (simple numerical)
  - o Stock location
  - o Order picking and assembly
- Control and Security
- Inventory record accuracy and tolerance (theory)
- Technology applications (Bar codes, RFID)

Course Content

T - Teaching Hours | **W** - Weightage

Sr.	Topics	T	W
2	**Module-II** Overview Manufacturing Planning and Control Systems: (materials management perspective) • Strategic business plan • Production plan • Master production schedule • Material requirements plan • Purchasing and production activity control Master Production Schedule: (numerical) • Developing a master production schedule • Master schedule decisions • MPS and delivery • Materials Planning: Value analysis o Make or buy Techniques o Requirement based on past consumption o Materials Requirement Planning Materials Requirement Planning: • Definition, Objectives • Bills of Material • Structure of Bills of Material • Advantages and uses of Bills of Material • Gozinto matrix / graph • Techniques of MRP o Exploding and offsetting o Gross and net requirements o Releasing Orders o Low level coding and netting Use of past consumption data	**15**	**25**
3	**Module-III** Production Activity Control: • Data requirements • Planning files o Item master file, product structure file, routing file and work centre master file. • Control files o Shop order master file and the shop order detail file. • Manufacturing Lead Time • Scheduling techniques o Forward and backward scheduling o Infinite and finite loading • Reducing manufacturing lead time o Operation overlapping and operation splitting Bottlenecks o Managing bottlenecks • Theory of constraints, Drum-Buffer-Rope Stores and Stores keeping: • Objectives, functions, features, benefits • Physical stock verification methods • Layout of stores, receipt section, Goods Receipt Note • Types of stores • Types of storage equipment	**15**	**25**
4	**Module-IV**	**15**	**25**

Course Content

T - Teaching Hours | **W** - Weightage

Sr.	Topics	T	W
	Materials Handling: Introduction Classification of Material handling equipment Manual handling Mechanized handling Purchasing: Objectives Purchasing cycle Purchasing specifications Supplier selection Price determination Impact of MRP on purchasing		
	Total	**60**	**100**

Suggested Distribution Of Theory Marks Using Bloom's Taxonomy

Level	Understanding	Application	Analyze	Evaluate
Weightage	25	25	25	25

NOTE : This specification table shall be treated as a general guideline for the students and the teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Course Outcomes

At the end of this course, students will be able to:	
CO1	Assess the application of Theory of Constraints (TOC), capacity planning and Production Activity Control (PAC), Master Scheduling and the Master Production Schedule (MPS).
CO2	Discuss and debate on competency required in the practical application of materials management principles in industrial inventory systems.
CO3	Critically evaluate global materials management practices
CO4	Critically analyze practices to Influence teams for effective decision making and coordinate to effect purchase at minimum cost

CO PO Mapping

CO	CO - 1	CO - 2	CO - 3	CO - 4
PO - 1	3	2	2	2
PO - 2	2	3	3	3
PO - 3	0	1	0	1
PO - 4	1	0	3	0
PO - 5	0	2	0	3

Reference Books

1.	**Materials Management: A Supply Chain Perspective (Text and Cases) (TextBook)** By A. K. Chitkale, R. C. Gupta | Pearson | Latest
2.	**Handbook of Materials Management** By P. Gopalakrishnan, Abid Haleem | PHI | Latest