



Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore
Shri Vaishnav Institute of Technology and Science
Choice Based Credit System (CBCS) Scheme in light of NEP-2020
Generic Elective for UG

COURSE CODE	CATEGORY	COURSE NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL		L	T	P	CREDITS
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
GUME401	GE	Inventory Handling Systems for Industries	60	20	20	0	0	4	0	0	4

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;
***Teacher Assessment** shall be based following components: Quiz/Assignment/Project/Participation in Class, given that no component shall exceed more than 10 marks.

Course Objectives

1. To provide fundamental knowledge of inventory management and its importance in industrial systems.
2. To familiarize students with different types of inventory and their handling techniques.
3. To introduce tools and techniques used for inventory control and optimization.
4. To enable students to analyze and evaluate inventory systems for efficiency and cost-effectiveness.
5. To develop problem-solving skills for practical inventory handling challenges in industries.

Course Outcomes

Upon successful completion of this course, students will be able to:

1. Explain the concepts and significance of inventory management systems.
2. Classify various types of inventories and describe their handling techniques.
3. Apply inventory control methods such as EOQ, ABC, and JIT.
4. Evaluate and optimize inventory performance using modern tools and techniques.
5. Recommend appropriate inventory handling systems for different industrial requirements.

Syllabus:

Unit 1: Introduction to Inventory Management

- Definition and Importance of Inventory
- Objectives and Functions of Inventory Systems
- Types of Inventories: Raw Material, WIP, Finished Goods
- Inventory Classification and Codification

Unit 2: Inventory Control Techniques

- Economic Order Quantity (EOQ)
- Reorder Point and Safety Stock
- ABC, VED, and FSN Analysis
- Just-In-Time (JIT) Inventory System

Chairperson

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Controller of

Joint Registrar



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Unit 3: Inventory Planning and Forecasting

- Demand Forecasting Techniques
- Inventory Models (Deterministic and Probabilistic)
- Lead Time Analysis
- Material Requirement Planning (MRP)

Unit 4: Inventory Management Tools

- Software Tools for Inventory Management
- ERP Systems for Inventory Control
- Barcode and RFID Technologies
- Automation in Inventory Handling

Unit 5: Advanced Topics in Inventory Management

- Vendor-Managed Inventory (VMI)
- Consignment Inventory
- Inventory Turnover Ratios and Performance Metrics
- Reverse Logistics and Returns Management

Reference Books

1. "Production and Operations Management" by S. N. Chary.
2. "Inventory Management Principles and Practices" by John Toomey.
3. "Operations and Supply Chain Management" by F. Robert Jacobs and Richard B. Chase.
4. "Essentials of Inventory Management" by Max Muller.
5. "Logistics and Supply Chain Management" by Martin Christopher.

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