

Bachelor of Vocation – Healthcare Management

Undergraduate Curriculum Framework 2022(UGCF)

DISCIPLINE SPECIFIC ELECTIVE –DSE- 6: Materials Management in Healthcare

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSE-6 Materials Management in Healthcare	4	3	1	0	NA	NA

Learning Objectives

This course provides an overview of Materials management principles and practices in the healthcare industry. It focuses on the effective management of medical supplies, equipment, and other Materials to ensure their timely availability, cost-effectiveness, and quality in healthcare settings. Students will explore various aspects of Materials procurement, inventory control, distribution, and vendor management specific to healthcare organizations.

Learning outcomes

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

1. Understand the importance of Materials management in healthcare and its impact on patient care, safety, and operational efficiency.
2. Identify and apply various Materials management techniques and best practices in healthcare settings.
3. Analyze and optimize the inventory management process to reduce costs while maintaining adequate stock levels.
4. Evaluate the selection criteria for healthcare suppliers and establish effective vendor relationships.
5. Utilize technology and software tools to enhance Materials management processes in healthcare organizations.

Syllabus:

Unit 1(5 Hours)

Introduction to Materials Management in Healthcare- Definition, scope and importance of materials management, Aims, objectives & principles of materials management; Materials Cycle, Importance of materials management in healthcare, Materials management challenges in healthcare settings, Integrated Approach to Materials planning & control.

Unit 2(10 Hours)

Inventory Control- Definition & objectives of inventory control, Types of inventory cost, Pareto' law ABC/VED/SDE analysis, Basic inventory management techniques, Economic Order Quantity (EOQ) and Reorder Point (ROP) analysis, Stock rotation and expiry management in healthcare.

Unit 3(10 Hours)

Materials Procurement in Healthcare- Purchasing process, meaning of purchasing, Objectives of purchasing, 5 R's of purchasing, Centralized & Decentralized purchasing, General principles of procurement of medicine, Identifying healthcare materials needs and requirements, Request for Proposal (RFP) and Request for Quotation (RFQ) processes, Supplier selection and evaluation criteria, Vendor Management.

Unit 4(5 Hours)

Stores Management- Responsibilities and functioning of stores, Types of Medical Stores, planning of hospital stores, Location, lay-out planning and design of hospital stores, Preservation of stores, documentation & evaluation of stores.

Unit 5(10 Hours)

Equipment Management - Classification of Hospital equipment, Planning and selection of equipment, Factors affecting utilization of equipment, Equipment failure, documentation, equipment maintenance and its types and Equipment audit.

Unit 6 (5 Hours)

Future Trends/Sustainability in Materials Management- Emerging technologies and innovations in healthcare materials management, Predictive analytics and artificial intelligence applications in materials management, Green procurement and eco-friendly materials, Waste management and disposal considerations in healthcare, Sustainable practices in materials management.

Practical component (if any) –

N/A

Essential/recommended readings

1. Jhamb, L. C. (2012). Production and operations management. Everest Publishing House.
2. Bhatt, K. S. (2008). Production and materials management. Himalaya Publishing House.
3. Gupta, S. (2007). Hospital stores management: An integral approach. Jaypee Brothers Medical Publishers.
4. Gupta, S., & Kanth, S. (2015). Hospital stores management (2nd ed.). Jaypee Brothers Medical Publishers.

Suggestive Readings

1. Hospital Stores Management- An Integrated Approach, by Dr. Gupta Shakti, Jaypee Brothers.
2. Gopalakrishnan, P. (1997). Materials management (2nd ed.). Prentice Hall of India.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.