

Maulana Abul Kalam Azad University of Technology, West Bengal

(Formerly West Bengal University of Technology)

Syllabus for Master of Hospital Administration (MHA)

(Effective for Academic Session 2019-2020)

13.7Waste Team Training

13.8BMW (Management & Handing) Rules 1998

13.9Record Keeping at the Level of Waste Manager

Books-

1. Hospital and health administration – Syed AminTabish Principles and Practice
Publisher: OXFORD UNIVERSITY PRESS ,YNCA Library Building,Jai Singh
Road
New Delhi -110 001
2. Hospital Facilities Planning and Management - GD Kunders
Publisher:JAYPEE BROTHERS ,Medical Publishers(P) LTD ,New Delhi
3. Hospital and Nursing Homes Planning, Organisations & Management - Syed
Amin Tabish Publisher: Jaypee Brothers Medical Publishers(P) LTD New Delhi
4. Modern Trends in Planning and Designing of Hospitals : Principles and Practice
Shakti Kumar Gua, Sunil Kant, R. Chandrashekhar, SidharthaSatpathy
(Jaypee Brothers Medical Publishers (P) LTD, New Delhi)

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Materials Management

Paper Code: MHA-202

Total Hours – 30

Credit -3

1. Materials Management (5L)
 - 1.1 Need, scope and advantages: material forecasting (MRP, MPS, Aggregate Planning).
 - 1.2 Material Requirement Planning and Budgeting and controlling
 - 1.3 Logistics Principles, Components, Importance in Healthcare units. Logistics Supplies, Services and users.
 - 1.4 Purchase Cycle

2. Inventory Planning and Control (4L)
 - 2.1 EOQ Models- without shortage, with price breaks, Effect of quantity discount
 - 2.2 ABC, FSM and VED clarification, Inventory control, Perpetual, Tow-bin and Periodic Inventory.

3. Scheduling: Gantt Chart, Johnson's Rule (3L)

4. Purchase Management (8L)
 - 4.1 Purchase policy, Systems, Procedures, Vendor Selection and Negotiation.
 - 4.2 Vendor Development and Evaluation, Make or Buy Decision, Legal aspects of purchasing
 - 4.3 An overview of law of contracts Sales of Goods Act, Drug Control Act Highlighting the general features of the Acts(No clause by clause study)

5. Principles of Storage and Stores Accounting- Types of Storage-Care and preservation of materials and equipment- Role of computers (4L)

6. Inspection and Quality Control (6L)
 - 6.1 Types of criteria of Inspection, Statistical Quality Control, Control Charts.
 - 6.2 Contracts Administration- Model Contract for Different Service i.e. Laundry, Dietary, Dispensary, Security and Annual Services, Annual Maintenance Contract.

REFERENCE BOOKS

1. Bedi- Production and Operations Management (2nd edition); Oxford University Press
2. Butta, E S and Sarin; R K- Modern Production, Operations Management, John Wiley
3. Gopalakrishnan and Sundaresan- Materials Management An Integrated Approach, TMH
4. Mahadevan- Operations Management, Pearson Education
5. Dutta- Materials Management; PHI

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QUALITY MANAGEMENT

Paper code- MHA (N) 203	Total hours- 30	Credit-3
1 .FUNDAMENTALS OF QUALITY MANAGEMENT		(2 L)
1.1. Definitions		
1.2. Objectives		
1.3. Principles		
1.4. Constrains		
2. QUALITY MANAGEMENT PROGRAMME		(4L)
2.1. ISO Clause		
2.2. Quality Manual		
3. Medical Audits		(6L)
3.1. NABL		
3.2. NABH		
3.3. JCI		
3.4. BIS		
4. PERFORMANCE REVIEW		(4L)
4.1. Assessment		
4.2. Methods		
4.3. Techniques and tools in Quality Management		
5. QUALITY MANAGEMENT OF DIAGNOSTIC FACILITIES		(6L)
6. QUALITY ASSURANCE PROCEDURES		(4L)
6.1. Demming's Principle		
6.2. Juran's Triology		
6.3. Kiazen		
6.4. Philip Crosby's Principles		
7. QUALITY CIRCLE		(4L)

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7.1. Definition

7.2. Objectives

7.3. Operation

RECOMMENDED BOOKS

- ❖ Total Quality Management - M.P. Poonia & S.C. Sharma
- ❖ Total Quality Management - D.N.Mukherjee
- ❖ Total Quality Management - Aswathappa
- ❖ Quality Management - P.C Tripathy

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HOSPITAL PLANNING

Paper Code- MHA (N) 204

Total Hours- 30

Credit-3

1. DEMAND ESTIMATION PROCEDURE (1L)
2. STRATEGICS OF HOSPITAL EQUIPMENT PLANNING AND PROCEDURE (1L)
 - 2.1. Steps in equipment selection
 - 2.2. Utilization index
 - 2.3. Factors leading to poor utilization of equipments
 - 2.4. Planning and procedure of spares/ accessories/consumables
3. LISTING OF COMMON MEDICAL EQUIPMENTS USED IN HOSPITAL (1L)
4. JUSTIFICATION OF PURCHASE PROPOSAL (1L)
5. REQUIREMENT SELECTION GUIDELINES, ESTIMATION OF COST AND Q.C PLANNING (1L)
6. PURCHASE/ INSTALLATION/ COMMISSSIONING OF MEDICAL EQUIPMEN (1L)
 - 6.1. Tendering procedures
 - 6.2. Procurement procedure
 - 6.3. Vender development and rating
 - 6.4. Method of payment
 - 6.5. Letter of credit
 - 6.6. Foreign currency payment
 - 6.7. Import documentation
7. PLACEMENT OF OLD EQUIPMENT AND BUYBACK POLICIES (1L)
8. ESTIMATION OF BREAKEVEN POINT AND PROFIT PROJECTION IN HOSPITAL BUDGET (1L)
9. MEDICAL EQUIPMENT MAINTAINENCE (2L)
 - 9.1. Codification and classification of equipments
 - 9.2. Condemnation and disposal of scrap
 - 9.3. Surplus and obsolete equipment
10. SURVEYING THE COMMUNITY (3L)
 - 10.1. Area wise planning.
 - 10.2. Planning for general hospital Service.
 - 10.3. Determining the logical centers for hospital location, determining the area served by them
 - 10.4. Occupancy and bed ratios, determining the size and kind of hospital service.
 - 10.5. Evaluating the natural and human resources of each area in terms of capability to provide and sustain the support for the services.
11. FUNCTIONAL PLANS FOR HOSPITAL CONSTRUCTION (5L)
 - 11.1. Principles of planning.

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- 11.2. Regionalization, hospital planning team, planning process.
- 11.3. Size of the hospital-site selection.
- 11.4. Hospital architect, architect report, equipping a hospital, interiors & graphics construction & commissioning.
- 11.5. Planning for preventing injuries, electrical safety.

- 12. TECHNICAL ANALYSIS: (6L)
 - 12.1. Assessment of the demand and need for hospital services
 - 12.2. Factors influencing hospital utilization
 - 12.3. Bed Planning
 - 12.4. Land requirements.
 - 12.5. Project cost, space requirements.
 - 12.6. Hospital drawing & documents, preparing project report.

- 13. FUNCTIONAL HOSPITAL ORGANIZATION (3L)
 - 13.1. Consideration for Hospital code of ethics, Medical ethics.
 - 13.2. Standard for hospital accreditation, accreditation standards for extended care facilities.

- 14. POSITIONING OF SERVICES (2L)
 - 14.1 Positioning of clinical laboratories, radiological services, medical records, front office, billing, staffing, housekeeping, transportation, dietary services, emergency services, infection control, mortuary services and others.

- 15. MANPOWER PLANNING (1L)
 - 15.1. Manpower planning requirement for a 50 bedded hospital and teaching hospital (300 bedded)

References:

- 1. Hospital Planning, WHO, Geneva, 1984
- 2. Kunders G.D., Gopinath S., and Katakama a., Hospital Planning, Design and Management, Tata Mc.Graw Hill, New Delhi, 1999.
- 3. HOSPITAL MANAGEMENT- McGibony, Philadelphia, Pitmann's Pub
- 4. Textbook Of Hospital Management :-Sakarkar and Tabish

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Health Management Information System

Paper Code – MHA (N) – 205 Total Hours – 30 Credit – 3

- | | |
|--|----|
| 1. E-commerce/E-business | 2L |
| a) Overview, Definitions, Advantages & Disadvantages of E-commerce | |
| 2. Decision Support System (DSS) | 2L |
| a) Definition, Relationship with MIS, Evolution of DSS, Characteristics, Classification, | |
| b) Objectives, Components, Applications of DSS. | |
| 3. Basics of Commercial Software like SAP, Oracle Apps, BAAN | 2L |
| 4. Database Management System (DBMS) | 4L |
| a) What is a DBMS? Need for using DBMS. Concept of tables, records, attributes. | |
| b) SQL | |
| 5. Outsourcing | 4L |
| a) Concept of BPO, KPO | |
| b) Data Warehousing and Data Mining | |
| c) Concepts of Data warehousing, data mart, meta data, multidimensional modeling | |
| d) Online Analytical Process (OLAP), Online Transaction Processing (OLTP) | |
| 6 . Health Information Management | 4L |
| 6.1 Introduction to Health Information System | |
| 6.2 Objective | |
| 6.3 Benefits | |
| 6.4 Source of information | |
| 6.5 Ratio analysis | |

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- 6.6 Health system research
7. Hospital Information system 4L
- 7.1 Introduction
 - 7.2 Classification of Hospital Information system
 - 7.3 Data collection
 - 7.4 Data analysis
 - 7.5 Benefits of Hospital Information system
8. Medical Records Department 4L
- 8.1 Introduction
 - 8.2 Purpose
 - 8.3 Organization
 - 8.4 Staffing
 - 8.5 Medical Record forms
 - 8.6 Functioning of MRD
9. Medical Audit 4L
- 9.1 Introduction & Definition
 - 9.2 Importance
 - 9.3 Methodology

Reference:

1. Management Information Sys. In Hospital : Anil Kumar Saini ISBNB 8176291
2. NIHFWS, DHM, Block 6
3. Medical Records organization and management, G.D Mogli---JAYPEE
4. Data Management Software's – Galgotia
5. Bharat, Bhaskar : Electronic Commerce- Technologies & Applications. TMH
6. Forouzan : Data Communication & Networking, TMH
7. Joseph, P.T : E- Commerce An Indian, Perspective,

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Research Methodology and Quantitative Methods

Paper Code – MHA (N) – 206 **Total Hours – 40** **Credit – 4**

Research Methodology

- | | |
|---|----|
| 1. Introduction to Research Methodology | 1L |
| ○ Meaning, Objectives & Types of Research | |
| 2. Formulation of Research Problems | 1L |
| 3. Literature Review- process, different approaches | 1L |
| 4. Research Design | 2L |
| ○ Meaning, Need, Types, Requirements | |
| 5. Sampling Fundamentals | 2L |
| ○ Sampling techniques | |
| ○ Limitations & Errors in sampling | |
| 6. Measurement and scaling techniques | 1L |
| 7. Methods of data collection | 2L |
| 8. Processing and Analysis of data | 8L |
| ○ Data processing & coding | |
| ○ Descriptive, Central Tendency, Dispersion | |
| ○ Hypothesis Testing | |
| ○ Test of comparisons of mean - t test, z test | |
| ○ ANOVA Model uses | |
| ○ Suitability of testing tools/criteria | |
| 9. Writing of a research report | 2L |
| ○ Characteristics of a good report | |
| ○ Approaches to writing reports | |
| ○ Sections of research report | |
| ○ Referencing & citation | |

Quantitative Methods

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1. Basic Concepts of Statistics (1L)
2. Measurement of Central Tendency: Arithmetic Mean, median, mode. Percentile, Quartile (3L)
3. Measurement of Dispersion-Range, Mean Deviation, Variance, Standard Deviation. (3 L)
4. Correlation &Regression (4L)
5. Introduction to probability ,Measurement of Probability and Law of Probability for independent events- Conditional Probability, Baye's Theorem (4L)
6. Normal Distribution, Binomial Distribution, Poison-Population-Sample and basics of statistical interferences, Sample Size, Sampling Distribution, Statistical Inference- Type-I and Type-II error (5L)

Reference books:

1. Research Methodology – Cooper & Schindler (TMH)
2. Research Methodology – Methods and Techniques – CR Kothari – (New Age International Publication)
3. Research Methodology – RamanujMajumder
4. Statistics(Part I and Part II) –N.G Das
5. Statistics -Goon Gupta, Dasgupta
6. Business Statistics -G.C. Beri-TMH
7. Aczel-Computer Business Statistics (6th Edition);TMH
8. Anderson,Sweeny,and Williams-Statistics for Business and Economics, (9th Edition);Thomas Learning

SESSIONAL

MHA (N) – 291

4 credits

Project on various departments of a Hospital

2 – months placement in various types of Hospitals across India in departments like Patient services, Support services & Administration. The students are expected to find the following information pertaining to the department placed in –

- Layout & design
- Functioning
- Staffing
- Standard Operating Procedures (SOP)
- Records & documentation
- Interaction with other departments
- Management issues & challenges