



GUJARAT TECHNOLOGICAL UNIVERSITY

Bachelor of Engineering

Subject Code: 3170316

Semester –VII

Subject Name: Hospital Management and Clinical Technology

Type of course: Professional Elective course - III

Prerequisite: Human Anatomy & Physiology,

Rationale: The purpose of learning this course is to understand the Management of Hospital and Various healthcare Services. This Subject will Enable Students to Understand the Planning, Organizing and Managing Various Hospital Services.

Teaching and Examination Scheme:

Teaching Scheme			Credits C	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
				ESE (E)	PA (M)	ESE (V)	PA (I)	
3	0	0	3	70	30	0	0	100

Content:

Sr. No.	Content	Total Hrs
1	Introduction to Hospital Management – Concept of Management, Characteristics, Objectives and Importance of management, Levels of management, Functions of Management .Definition of Hospital, Factors responsible for development of Hospitals, Special Features of the Hospital, distinction between Hospital and Industry, Hospital Management System Functions, Classification of Hospitals, Significance of Hospital Administration, Components of the functions of Hospital administration, Challenges in Hospital administration.	6
2	Hospital Planning – Guiding principles of Hospital planning, components and steps of hospital planning, Impact of regulations on hospital planning and designing, recent trends in hospital planning and designing in the world, Equipment Planning, Functional Planning Major criteria for Planning a New Hospital, Basic minimum requirements for Hospital of 30 Beds, Models of Hospitals: - Government Hospital, University Hospital, Trust hospitals, Large Corporate Hospitals.	8
3	Human Resource Management in Hospitals - Objectives of HRM System in Hospitals, Personnel Management versus HRM, Procurement of Human Resources, Human Resource Planning in Hospitals, Development of Human Resources, Compensation of Human Resources, Integration of Human Resources, Human Resource Information System (HRIS), The Future of HR Function in Hospitals.	10



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4	Hospital Waste Management: Types of Wastes, Characteristics of Waste Disposal System, Collection and Removal, General Classification of Waste, Biomedical Waste Rules, Thermal Treatment and Incineration. Biomedical Engineering Department: Definition of Clinical Engineering & Biomedical Engineering, Importance of BME Department: Service, Maintenance and Testing, Roles and Responsibility of Biomedical Engineer in Hospital.	8
5	Hospital Services: Outpatient: Understanding of Outpatient, Magnitude And Importance Of Outpatient Services, Planning Of Outpatient Services, Sitting, Accommodation And Physical Facilities, Flow Pattern of OPD, Common Problems In Outpatient Services Nursing Services: The Nightingale Ward, Progressive Patient Care, Classification Of Ward Accommodation, Major Requirements of Nursing Unit: Nursing Station, Sanitary Facility, Treatment Room, Specialized Nursing Unit , Function Of The Nursing Services, Role Of Nursing Services, Determining The Nursing Staff Requirement, Factors Which Influence The Number Of Nurses, Intensive Care Unit: Role and Functions of ICU, Types of Patients, Types of Intensive Care Units, Planning and Organisation of ICU. Laboratory Services, Blood Bank, CSSD.	10
6.	Quality and Safety Aspects in Hospital – Medical Audit, Protocols, Elements of Audit, Audit Types, Quality system, Implementation of quality system, International Standards ISO 9000 Series, ISO 9002 and Hospital, Implementation, benefits of ISO Certification, Security – Loss Prevention, Fire Safety, Alarm System, Safety Rules.	3
Total		45

Suggested Specification table with Marks (Theory):

Distribution of Theory Marks					
R Level	U Level	A Level	N Level	E Level	C Level
40%	40%	0%	0%	20%	0%

Legends: R: Remembrance; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)

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

Reference Books:

1. Sakharkar, Principles of Hospital Administration and Planning, Jaypee Medical publishers 1/e, Reprint 2004
2. A.V. Srinivasan, Managing a Modern Hospital, response books, Second Edition 2008
3. D. K. Sharma, R. C. Goyal, Hospital administration and human resource management, PHI, Seventh Edition



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4. Dr. S. Sasikala Dr. N. Malarvizhi , Dr. A. Suresh, Dr. E. A. Neeba, Hospital Management, Technical Publication 2020 edition
5. R.C. Goyal, Hospital Administration and Human Resource Managementl, PHI –Fourth Edition, 2006
6. G.D. Kunders, Hospitals –Facilities Planning and Management –TMH, New Delhi, Fifth Reprint 2007.

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	To acquire an understanding of the functions of management and administration of the Hospitals.	14%
CO-2	Understand the Basic Skills of Hospital Planning.	18%
CO-3	Identify the importance of Human resource management	22%
CO-4	Maintain various medical records and waste management. And Learn the Importance of BME Department in Hospital.	18%
CO-5	Acquire the Knowledge about Various Important Health Care Services.	22%
CO-6	Understand the Medical Protocols and safety procedures followed in hospitals	6%

List of Experiments: NA

Major Equipment: NA

List of Learning website:

- 1) Emerging Areas in Hospital Planning Design Construction And Facilities Management - https://onlinecourses.swayam2.ac.in/arp19_ap47/preview