



GUJARAT TECHNOLOGICAL UNIVERSITY

Program Name: Post Graduate Diploma in Hospital Management

Level: PG Diploma

Course / Subject Code: DH02077031

Course / Subject Name : Hospital Planning and Project Management

w. e. f. Academic Year:	2024 - 2025
Semester:	2
Category of the Course:	Discipline Specific Elective (Any One)

Prerequisite:	To excel in the subject of Hospital Planning & Project Management, students need a foundational understanding of healthcare systems and hospital administration. To understand the basic knowledge of facility design, infrastructure, and operational workflows will help students align hospital layouts with functionality and efficiency. Awareness of healthcare regulations, accreditation standards (e.g., NABH, JCI), and government policies is essential to ensure compliance in hospital projects.
Rationale:	This subject equips students with the knowledge and skills needed to design, develop, and manage healthcare facilities that meet the needs of diverse patient populations while adhering to stringent regulatory and accreditation standards. Effective hospital planning is vital for aligning infrastructure, workflows, and resources with healthcare demand, ensuring seamless operations and a positive patient experience. Simultaneously, project management is integral to executing hospital projects, from conceptualization to commissioning, within allocated budgets and timelines.

Course Outcome:

After Completion of the Course, Student will able to:

No	Course Outcomes	RBT Level
01	To provide students with comprehensive knowledge of the principles and processes involved in planning, designing, and developing healthcare facilities that are functional, efficient, and patient-centered.	Understand & Apply
02	To develop the ability to analyze healthcare needs, forecast demand, and make informed decisions regarding resource allocation, infrastructure development, and service planning.	Understand
03	To Design functional areas within a hospital, such as Clinical, diagnostic & Support Services to optimize workflows.	Understand & Apply
04	To Create medical facilities that adhere to environmental sustainability objectives by utilizing green building, waste management, and energy efficiency.	Understand & Apply
05	To develop cost-effective plans for hospital infrastructure and operations, ensuring optimal resource utilization and financial feasibility.	Understand & Apply



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*Revised Bloom's Taxonomy (RBT)

Teaching and Examination Scheme:

Teaching Scheme (in Hours)			Total Credits L+T+ (PR/2)	Assessment Pattern and Marks				Total Marks
L	T	PR	C	Theory		Tutorial / Practical		
				ESE (E)	PA / CA (M)	PA/CA (I)	ESE (V)	
4	0	0	4	50	0	50	0	100

Course Content:

Unit No.	Content	No. of Hours	% of Weightage
1.	<p>Introduction to Hospital Management Definition, History & Types of Hospital, Function of Hospital Classification of Hospital</p> <p>Hospital Planning Concept of Planning, Setting up goals and missions, Feasibility study, Identification of Geographical Area, Patient Group size, Types of Facilities to be provided, Characteristics of Population growth, Designing and execution</p>	10	10
2.	<p>Changing health care concept in planning / designing Site surveys for planning a hospital (Techno-Commercial), Hospital building, architectural patterns, landscaping, Internal arrangements, sanitation, lighting, ventilation and traffic control,</p> <ul style="list-style-type: none"> • Planning of 30,100,250 bedded hospital(general/specialty) • Planning of 500, 750 and above bedded hospital(teaching/super-specialty/non-teaching specialty hospitals) 	10	15
3.	<p>Planning Clinical Services: Overview- function- location- design- organization- space requirement- facilities- emergency services design- space requirement- physical facilities.</p> <p>Planning Support Services: Overview- function- location- design- organization- space requirement- facilities- design- space requirement- physical facilities</p> <p>Facilities planning: Transport – communication – food services – mortuary – information system – water- electricity- sewage line- centralized medical gas system- eco-friendly hospital.</p>	15	15



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	System planning and commissioning: HR planning- Equipment planning- commissioning- Legal issues w.r.t. hospital setup.		
4.	Project cost and total budget: Feasibility and viability study of Hospital Project conceptualization, functional requirements. Implementation, Case Studies	10	10
5.	Practical Application All the students of the program will be given practical assignments/Quiz on the application of the above mentioned topics from the syllabus. The applications of the theory concepts would be in the form of Hospital Visit, Project on Commencing the Hospital, SOP Making of Hospital, Case Study, Presentation and Group Project etc.	15	CEC (50 Marks)
Total		60	100

Suggested Specification Table with Marks (Theory):

Un it No.	Unit Title	Teaching Hours	Distribution of Theory Marks						Total Marks
			(Assessment as per Revised Bloom's Taxonomy Level*)						
			RM	UN	AP	AN	EL	CR	
I	Introduction of Hospital & Hospital Planning	10	00	05	05	00	00	00	10
II	Planning & Designing of Hospital (30beds to 1000 beds) Speciality & General Hospital	10	00	05	05	00	00	00	10
III	Planning of Clinical Services, Support Services, Facility Planning, HR & Equipment Planning	15	00	05	05	05	00	00	10
IV	Project Cost & Budget of Hospital	10	00	05	05	05	00	00	15
Total		45	00	20	20	10	00	00	50

Where R: Remember; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create (as per Revised Bloom's Taxonomy)



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References/Suggested Learning Resources:

S. No.	Title of Book	Author	Publication with place, year and ISBN	Edition
1	Hospital Designing & Planning	Narendra Malhotra	Jaypee Publication	Latest Edition
2	Hospital Administration & Planning	B M Sakharkar	Jaypee Publication	Latest Edition
3	Planning & Designing of Speciality Healthcare Facilities	Shakti Kumar Gupta	Jaypee Publication	Latest Edition
4	Modern Trends in Planning & Designing of Hospitals	Shakti Kumar Gupta	Jaypee Publication	Latest Edition

(b) Open source software and website:

<https://www.youtube.com/watch?v=eW4XmjC7IXk>

<https://www.youtube.com/watch?v=xktQQjKeSP8>

Suggested Project List, if any:

SOP & Policy Making, Project Report on Hospital Visit

Suggested Activities for Students, if any:

Presentation, Group Project, Case Study discussion etc.

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