

Dr. N.G.P. ARTS AND SCIENCE COLLEGE

(An Autonomous Institution, Affiliated to Bharathiar University, Coimbatore) Approved by Government of Tamil Nadu and Accredited by NAAC with '4++' Grade (3rd Cycle-3.64 CGPA)

Dr. N.G.P. – Kalapatti Road, Coimbatore-641048, Tamil Nadu, India

Web: www.drngpasc.ac.in | Email: info@drngpasc.ac.in | Phone: +91-422-2369100

REGULATIONS 2024-25 for Post Graduate Programme (Outcome Based Education model with Choice Based Credit System)

M.Sc., Hospital Administration

(For the students admitted during the academic year 2024-25 and onwards)

Programme: M.Sc., Hospital Administration

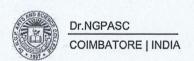
Eligibility

admission of Candidates for to the first year the M.Sc., Hospital Administration full time degree course shall be required to possess a pass in "Bachelor's Degree" of any University and as per the norms set by the Government of Tamil Nadu or an Examination accepted as equivalent hereto by the Academic Council, subject to such conditions as may be described there to are permitted to appear and qualify for the M.Sc., Hospital Administration Post Graduate Degree Examination of this College after a course of study of two academic years.

Programme Educational Objectives

The Curriculum is designed to attain the following learning goals which students shall accomplish by the time of their graduation:

- 1. To learn efficient methods of Hospital Administration
- 2. To understand the concepts of management with relation to modern hospitals
- 3. To prepare and train qualified and efficient administrators to manage hospitals
- 4. To prepare and understand the principles of management and apply, when providing Quality patient Care in selected areas of Clinical Specialty in the Hospital and Community



- 5. To offer platform for working professionals in hospitals to achieve desired knowledge, skills and attitude in the field of hospital administration and enhance culture of professionalism in their approach.
- 6. To improve the ability of hospital based professionals in ethical decision making and implementation in key result areas of Hospital Administration.

PROGRAMME OUTCOMES:

On the successful completion of the program, the following are the expected outcomes.

PO Number	PO Statement
P01	To understand the major concepts in the functional areas of accounting, marketing, finance, information technology, and management with relation to hospitals.
PO2	To build skills in the use of managerial tools of planning, organizing, and achieve optimal resource utilization in hospital settings.
P03	Use oral and written communication skills to meet the needs of various audiences.
PO4	Use team, and organizational skills, supervision, and coaching techniques to effectively lead across organization, department, and work group units to meet diverse stakeholder and organizational goals in a variety of healthcare environments.
P05	Develop innovative solutions to strategic, tactical and operational issues in managing healthcare systems and associated information technology through the combined use of information, data analytics, organizational knowledge, talent management, and critical and design thinking.

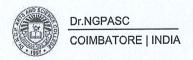
M.Sc. HOSPITALADMINISTRATION

Credit Distribution

Subjects	No.of Papers	Credit	Semester No.
Core	14	56	I to III
Elective	3	3 x 4 =12	I to III
EDC	1	1 x 3 =3	III
Computer practical	1	1 x 2 = 2	I
Hospital Internship	3	3 x 3 = 9	I to III
Hospital Training	1	1 x 2 = 2	III
Project work	1	1 x 8 = 8	IV
Total	24	92	

PG CURRICULUM M.Sc. HOSPITAL ADMINISTRATION AY 24-25

Course Code	Course Category	Course Name	L	Т	P	Instru Ho		Exa m	N	Iax N	Iarks	Credits
						Week	Total	(h)	CIA	ESE	Total	
First Semeste									CIA	ESE	Total	
24HAP1CA	Core - I	Management and Organisational Behaviour	4	1	-	5	60	3	25	75	100	4
24HAP1CB	Core - II	Concept of Health and Epidemiology	4	-	-	4	48	3	25	75	100	4
24HAP1CC	Core - III	Hospital Non- Clinical Operations Management	4	-	-	4	48	3	25	75	100	4
24HAP1CD	Core - IV	Hospital Clinical Operations Management	4	-	-	4	48	3	25	75	100	4
24HAP1CE	Core - V	Biostatistics and Operations Research	4	1	-	5	60	3	25	75	100	4
24HAP1CP	Core Practical	Spreadsheet Management	-	-	4	4	48	3	40	60	100	2
24HAP1CT	Hospital Internship- I	Hospital Supportive Services	-	-	-	-	-	3	40	60	100	3
24HAP1DB 24HAP1DC	DSE - I	Total Quality Management- Tools and Techniques Entrepreneurship Technology in Healthcare	4	-	-	4	48	3	25	75	100	4
		Total	24	2	4	30	360				800	29



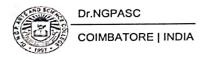
Course Code	Course Category	Course Name	L	Т	P	Instru	iction urs	Exa m (h)	1	Max	Marks	Credits
			Ü			Week	Total		CIA	ESI	E Total	
Second Seme	Second Semester											
24HAP2CA	Core - VI	Hospital Architecture Design and Planning	4	1	-	5	60	3	25	75	100	4
24HAP2CB	Core - VII	Healthcare Economics	4	-	- 1	4	48	3	25	75	100	4
24HAP2CC	Core - VIII	Human Resource Management and Industrial Relations	4	1	-	5	60	3	25	75	100	4
24HAP2CD	Core - IX	Materials Management	4	-		4	48	3	25	75	100	4
24HAP2CE	Core - X	Healthcare Marketing and Strategic Management	4	1	- 1	5	60	3	25	75	100	3
24HAP2CT	Hospital Internship II	Hospital Clinical Services	-		3	3	36	3	40	60	100	3
24HAP2DA		Application of Quality in Healthcare					ga ^r		1 p	1997 1997 1		
24HAP2DB	DSE - II	Innovation in Entrepreneurship	4	-	-	4	48	3	25	75	100	4
24HAP2DC		Healthcare Data Management				,						
		Total	24	3	3	30	360				700	26

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BoS Chairman/HoD
Department of Hospital Administration
Dr. N. G. P. Arts and Science College
Coimbatore – 641 048

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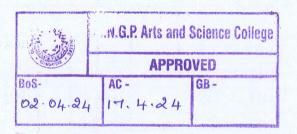




Course Code	Course Category	Course Name	L	Т	P		uction urs	Exa m (h)	Max Marks			Credit
						Week	Total		CIA	ESE	Total	
Third Semeste	er											
24HAP3CA	Core - XI	Quality Assurance in Healthcare	4	1	-	5	60	3	25	75	100	4
24HAP3CB	Core - XII	Healthcare Laws	4	-	-	4	48	3	25	75	100	4
24HAP3CC	Core - XIII	Hospital Information System	4	-	-	4	48	3	25	75	100	4
24COP3EA	EDC	Financial and Management Accounting	4	1	-	5	60	3	25	75	100	4
24HAP3CD	Core - XIV	Research Methods for Management	4	1	-	5	60	3	25	75	100	4
24HAP3CV	Hospital Internship- III	Minor Project	-	-	3	3	36	3	40	60	100	3
24HAP3DA		Quality Accreditations in Healthcare										
24HAP3DB	DSE - III	Healthcare Entrepreneurship	4	-	-	4	48	3	25	75	100	4
24HAP3DC		Data Visualization										
24HAP3CT	Hospital Training	Hospital Training (30 days) India or Abroad	-	-	-	_	-	3	40	60	100	2
		Total	24	3	3	30	360	-	-	-	800	29

Course Code	Course Category	Course Name	L	Т	P	Instru Ho Week		Exa m (h)	N	Max Marks		Credits
									CIA	ESE	Total	
Fourth Semest	er											
24HAP4CV	Project Work	Project Work and Viva-voce	-	-	16	-	<u>-</u>	3	80	120	200	8
		Total	-	-	16	-	-	3	80	120	200	8
												92

Bos Chairman/HoD
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DISCIPLINE SPECIFIC ELECTIVE

Students shall select the desired course of their choice in the listed elective course during Semesters I, II, III

Semester I (Elective I)

List of Elective Courses

S. No.	Course Code	Course Name
1	24HAP1DA	Total Quality Management-Tools and Techniques
2	24HAP1DB	Entrepreneurship
3	24HAP1DC	Technology in Healthcare

Semester II (Elective II)

List of Elective Courses

S. No.	Course Code	Course Name Indeed to memilian
17	24HAP2DA	Application of Quality in Healthcare
2	24HAP2DB	Innovation in Entrepreneurship
3	24HAP2DC	Healthcare Data Management

Semester III (Elective III)

List of Elective Courses

S. No.	Course Code	Course Name
1	24HAP3DA	Quality Accreditations in Healthcare
2	24HAP3DB	Healthcare Entrepreneurship
3	24HAP3DC	Data Visualization

EXTRA CREDIT COURSES

The following are the courses offered under self study to earn extra credits:

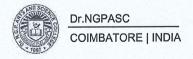
S. No.	Course Code	Course Name
1	24HAPSSA	Innovation, IPR and Entrepreneurship
2	24HAPSSB	Brand Management
3	24HAPSSC	Hospital Hazards Management

Semester - I
CORE 1: MANAGEMENT AND ORGANISATIONAL BEHAVIOUR

Semester	Course Code	Course Name	Category	L	Т	P	Credits
I	24HAP1CA	MANAGEMENT AND ORGANISATIONAL BEHAVIOUR	CORE	60	<u>-</u>	•	4

Preamble This course has been designed for students to learn and a basic framework to apply management theoric behavior techniques in various types of healthcate the interpersonal and communication skills to be conceptual and technical frameworks of leader managers		ies and organizational are organizations e an effective leader
Prerequisit	Knowledge about Organisation	
Course Ou	tcomes (COs)	
CO Number	Course Outcomes (COs) Statement	Bloom's Taxonomy Knowledge Level
CO1	Understand fundamental concepts of management	К3
CO2	Apply organizational planning systems and Decision making in health care	К3
CO3	Analyze functions of management, evaluate and develop organizational skills in health care management	K5
CO4	Analyze the principles of organizational behaviour dimensions in healthcare management	K5
CO5	Assess the effectiveness of healthcare administration skills using concepts of organizational climate	K5

Mapping with	Program Outco	omes:			
COs / POs	PO1	PO2	PO3	PO4	PO5
CO1	1	1	1	1	
CO2		1		✓	1
CO3	1			✓	1
CO4			1	1	
CO5		1			1



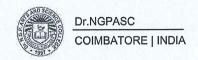
Unit	Content	Hours	E-Contents / Resources
I	Introduction to Management Evolution of Management science: Definition- nature- principle and process of management - management as science or art - management as profession - Managerial Roles -Management Theories: Classical- Behavioral- Modern theory - Industry 4.0 and beyond	12	Text Book
II	Planning and Organising Planning: Basics of planning- steps- types of plans – Strategic Management process. Organization: Meaning and definition – organization structure – delegation of authority- Decision making- Centralization - Decentralization.	12	Reference Book 2
ш	Directing and Controlling Staffing: Man power planning and resourcing - Direction: Principles- Motivation techniques - Hierarchy of needs theory - McClelland's theory - ERG theory - McGregor's Theory X and Theory Y - Control: process- quality- control techniques	12	Text Book
IV	Organisational Behaviour Definition- Key elements - Need - Scope of Organisational Behaviour - models - Personality-Perception - Learning and Behaviour - Group dynamics- Leadership - Leader Vs Manager- styles-Theories	12	NPTEL
V	Organisational Dynamics Organisational Climate – Power and Politics-Conflict- Organisational change - Resistance to change- Management of change- Organisational development - Organisational Communication-Principles- Channels- Barriers.	12	You Tube Videos
	Total	60	3817 (2.35 <u>1.)</u>

Text Book	1	Ramasamy.T. 2013. Principles of Management. Himalaya Publishing
	1.	Hose, Mumbai.
Reference	1	L.M.Prasad. Edition 2014. Organisational Behaviour. Sultan and Chand
Books	1.	sons, Delhi. Reprinted 2004
	0	Prasad.L.M. 2016. Principles and practice of Management. Sultan Chand
	2.	and sons, New Delhi. (Ninth Edition).
		Stephen.P.Robbins. 14th Edition. 2011. Organisational behaviour. PHI
	3.	Publishers, New Delhi
	1	David H. Holt. 1993. Management: principles and practices, Prentice Hall
	4.	PTR, United States.

Journal and Magazines	https://www.gurukpo.com/principles-and-practices-of-management/
E-Resources and Website	https://www.du.ac.in/uploads/new-web/29122022_Appendix-122.pdf

Learning Method	Chalk and Talk/Assignment/Seminar
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Focus of the	Skill Development/Entrepreneurial Development/Employability
Course	

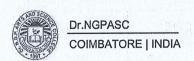


Semester - I
CORE 2: CONCEPT OF HEALTH AND EPIDEMIOLOGY

Course Code	Course Name	Category	L	T	P	Credits
24HAP1CB	CONCEPT OF HEALTH AND	CORE	48	-	-	4
		24HAP1CB CONCEPT OF	24HAP1CB CONCEPT OF HEALTH AND CORE	24HAP1CB CONCEPT OF HEALTH AND CORE 48	24HAP1CB CONCEPT OF HEALTH AND CORE 48 -	24HAP1CB CONCEPT OF HEALTH AND CORE 48

Preamble	This course has been designed for students to learn and understand					
	나 보통하는 그리고 하는 프랑이를 보면하는 것이다. 이 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은 사람들이 되었다면 사람들은 사람들이 되었다. 그런 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은	 implications of personal and societal behavior on disease 				
	 the broad view of epidemiological principles of 	disease				
	 the general aspects of health programmes 					
Prerequisi	te Basic knowledge about Health					
Course O	itcomes (COs)					
CO Number	Course Outcomes (COs) Statement	Bloom's Taxonomy Knowledge Level				
CO1	Understand about concept of health, different types of disease causation, and demonstrate knowledge	K4				
CO2	Understand the knowledge on basic anatomy, physiology and different functions of human body	K4				
CO3	Understand various epidemiological principles and strategic models in conducting field studies	K5				
CO4	Understand various aspects related to Infection control and Isolation	K4				
CO5	Understand various health programmes in India and criticize their current progress on public health	K4				

	Program Outcom				
COs / POs	PO1	PO2	PO3	PO4	PO5
CO1	· · ·	√compellanctions.	ledd shadar		
CO2	✓ = 1 = 1 = 1 = 1 = 1	ours signification	Market no tra	ectional	174
CO3	ngior sing bijoust	✓		✓	1
CO4	aranda arman edile.	✓ in the department	a southing transfer		3.1
CO5	Yusia hanni ke takun una	√			1



24HAP1CB CORE: CONCEPT OF HEALTH AND EPIDEMIOLOGY

Unit	Content	Hours	E-Contents / Resources
I	Concept of Health and Diseases Concept of health - Definition and dimensions of health - Spectrum of Health - Determinants of Health- Indicators of health- Concept of disease - Causation of Disease - Natural History of Disease - Disease classification - Concept of disease control - Concept of prevention.	8	Text Book
П	Basic Anatomy and Physiology & Human System Introduction -The Cell - The tissues - Organs and Systems - Skeletal system, Blood and Blood Components - Cardiovascular System - Excretory System - Respiratory System - Digestive System - Central Nervous System - Reproductive System	10	Reference Book 1
III	Epidemiology Definition and basic concepts of epidemiology- Basic measurement of disease frequency - Mortality and Morbidity - Infectious disease epidemiology - Epidemic outbreak Investigation	12	Text Book
IV	Infection Control Nosocomial infection- Asepsis- Reservoir- Carrier and mode of transmission of communicable diseases - Infection control measures - Host Defense - Immune response - Immunization agents - Hazards of Immunization - Disease Prevention and Control- Non communicable Disease- Barrier nursing- Isolation	9	NPTEL
V	National and International Health Programmes Indian Health Policy - National Family welfare Programmes - Universal Immunization programme - Reproductive and Child Health	9	You Tube Videos

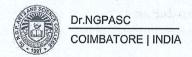
Total	48	
Foundation – World Bank Programme		
Programmes- Rockfeller Foundation- Ford		
Control Programme-International Health		
Mental Health Programme - National Diabetic		
National Cancer Control Programme - National		
Programme - National AIDS Control programme -		
Programme - National Leprosy Eradication		
Programme - National Tuberculosis Control		

Text Book	1	K. Park. 2007. Preventive and Social Medicine, 19th edition. M/S		
\$20 m	1.	Banarsidas Bhanot Publishers		
Reference	1	N.Murugesh. 1999. Basic Anatomy and Physiology, 5th edition. Sathya		
Books	1.	Publishers, Madurai		
	2	S.L. Goel. 2004. Healthcare Organization and structure. Deep and Deep		
	4.	Publications Pvt. Ltd, New Delhi		
	Ross and Wilson. 2006. Anatomy and Physiology in Health a			
	Ross and Wilson. 2006. Anatomy and Physiology in Health and ill 19th edition. Churchill livingstore Elsevier			
	4	F.Douglas Scutchfield, C.William Keck, 2009. Public Health Practice .		
4.		F.Douglas Scutchfield, C.William Keck, 2009. Public Health Practice . Cengage Learning India Private Limited, New Delhi.		

Journal and Magazines	http://aiihph.gov.in/department-of-preventive-and-social-medicine/
E-Resources and Website	https://milonm28.files.wordpress.com/2017/08/parks-preventive-social-medicine-23rd-ed.pdf

Learning Method	Chalk and Talk/Assignment/Seminar
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Focus of the Course	Skill Development/Employability	
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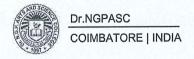


Semester - I
CORE 2: HOSPITAL NON- CLINICAL OPERATIONS MANAGEMENT

Semester	Course Code	Course Name	Category	L	Т	P	Credits
I	24HAP1CC HOSPITAL NON- CLINICAL OPERATION MANAGEMENT		CORE	48	•	-	4

	는 이 경험에 가지 않아 하는 것이 없어요. 그는 것이 없는 것이 없다면 없다.					
Preamble		This course has been designed for students to learn and understand				
	 the important functions of management in Hosp 	the important functions of management in Hospitals				
	• the Health Administration in India and Health	Agencies				
	 the designing and maintenance of Hospital Sup 					
Prerequisit	Basic knowledge about Supporting service in Hosp	oitals				
Course Ou	tcomes (COs)					
CO Number	Course Outcomes (COs) Statement	Bloom's Taxonomy Knowledge Level				
CO1	Understand, Compare and analyze the changing role of hospitals.	K4				
CO2	Understand compare and analyze the various levels of Indian healthcare system	K4				
CO3	Learn the different types of functions performed in the patient related supportive areas of the Hospital.	K5				
CO4	Learn the different types of services performed in the other Supportive areas of the Hospital	K4				
CO5	Understand and analyze the various crisis and its management in health care management	K4				

Lapping with	Program Outc	omes:			
COs / POs	PO1	PO2	PO3	PO4	PO5
CO1	1	1			
CO2	1	1			
CO3		1		1	
CO4	✓	1			
CO5		1	1	✓	1



Unit	Content	Hours	E-Contents / Resources
I	Introduction to Hospital Meaning of hospital - Classification of Hospital - Functions of hospital - Modern Hospital - Hospital Organization and Structure -Hospital administration as a career - Changing system of hospital services.	10	Text Book
II	Administrative Services Human resources - Marketing - Patient Relations - Medical Value Tourism - Finance - Information Technology - Purchase - Stores	9	Reference Book 1
Ш	Supportive Services Front Office - Housekeeping - Linen & Laundry - Transport - Security - Medical Records - Patient Counseling - Health Insurance - Biomedical waste management	9	Text Book
IV	Utility Services Engineering – Civil, Electrical, Plumbing - Bio- Medical - Medical Gas supply – HVAC System – Communication system	10	NPTEL
V	Crisis Management Fire safety – Disaster Risks – Mock drills - Maintenance - Safety - Hazard Identification and Risk Assessment	10	You Tube Videos
	Total	48	

Text Book	1.	1. G.D.Kunders. 2004. Hospital and facilities planning and Design - Tata McGraw Hill Publishing Ltd, Delhi			
Reference Books	1.	oel S L & Kumar R. 2004. Hospital Core Services: Hospital dministration of the 21st Century. Deep Deep Publications Pvt Ltd: New elhi			
	2.	S.K. Joshi. Quality Management in Hospitals. Jaypee Brothers Medical Publishers (P) Ltd, 2014, Delhi			
	3.	S.L. Goel. 2004. Healthcare Organization and structure. Deep and Deep Publications Pvt. Ltd, New Delhi			
	4.	David H. Holt. 1993. Management: principles and practices, Prentice Hall PTR, United States.			

Journal and Magazines	https://www.iihmr.edu.in/event/report-healthcare-operations-management
E-Resources and Website	https://www.scribd.com/document/262184850/Principles-of-Hospital-Management

Learning Method	Chalk and Talk/Assignment/Seminar	and the state of t
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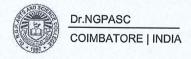
Focus of the Course	Skill Development/Entrepreneurial Development/Employability
Course	

Semester - I
CORE 4: HOSPITAL CLINICAL OPERATIONS MANAGEMENT

Semester	Course Code	Course Name	Category	L	T	P	Credits
I	24HAP1CD	Hospital Clinical					
		Operations	CORE	48	-	-	4
		Management					

Preamble	TI: 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						
Treambi	This education has been designed for students to lear	This course has been designed for students to learn and understand					
	• the specialties, sub specialties of medical field and various healthcare						
	services						
	• the important clinical functions and its manage	ment in Hospitals					
	• the health policies of the nation and its impact o	n the Hospitals					
Prerequi	site Basic knowledge about Clinical services in Hospit	als					
Course O	utcomes (COs)						
СО	Course Outcomes (COs) Statement	Bloom's Taxonomy					
Number	Resignatory et appropria	Knowledge Level					
CO1	Understand, Compare and analyze the specialties of						
COI	hospitals and various healthcare services	K4					
CO2	Learn the different types of functions performed in						
COZ	the diagnostic areas and pharmacy of the Hospital.	K4					
CO3	Learn the different types of services performed in	hander to					
CO3	the wards, ICU and OT areas of the Hospital.	K5					
CO.4	Learn the different types of services performed in						
CO4	the specialized clinical areas of the Hospital.	K4					
CO5	Distinguish and analyze the various health policies	νĘ					
	and health committees	K5					

Mapping with	Program Outcor	nes:			
COs / POs	PO1	PO2	PO3	PO4	PO5
CO1	√	✓ 2 more (al.)	far 13 a		
CO2	1	✓		1	√
CO3	1	✓		1	√
CO4		✓		1	
CO5		✓	✓		✓



Unit	Content	Hours	E-Contents / Resources
I	Overview of a Hospital Hospital - Specialties and sub-specialties of a Healthcare Industry - AYUSH Healthcare Services - Outpatient and Inpatient Services	8	Text Book
п	Hospital Facilities Laboratory- Blood Bank- Radiology and Imaging- Pharmacy- Nutrition and Dietary Services - Rehabilitative Services	10	Reference Book 4
Ш	Clinical Services Ambulatory Care - Ward Services- Operation Theatre- Intensive Care Unit - Nursing Services - Accident and Emergency- Quality Department - Clinical Trial - Ethics Committee	10	Text Book
IV	Special Services Central Sterile Supply Department - Nuclear Medicine - Dialysis - Mortuary - Tele Medicine - Committees in Hospitals- functions - Safety codes followed in Hospitals	10	NPTEL
V	Health Policy Health Planning in India - National Health Policy - Overview of health policy (NHP-1986-2015- HFA2000) - National Housing Policy - National Nutritional Policy - National Population Policy and five year plans - Health Committees and recommendations - National Health Budget Programmes- Rockfeller Foundation- Ford Foundation - World Bank Programme	10	You Tube Videos
	Total	48	

1	G.D.Kunders. 2004. Hospital and facilities planning and Design - Tata McGraw Hill Publishing Ltd, Delhi
1.	McGraw Hill Publishing Ltd, Delhi
1	S.K. Joshi. Quality Management in Hospitals. Jaypee Brothers Medical
1.	Publishers (P) Ltd, 2014, Delhi
0	S.L. Goel. 2004. Healthcare Organization and structure. Deep and Deep
2.	Publications Pvt. Ltd, New Delhi
3	James R. Langabeer. 2008. Health Care Operations Management: Jones &
3.	Bartlett Learning
4	Syed Amin Tabish, 2001. Hospital and Health services Administration:
4.	Principles and practices, Oxford University.
	1. 1. 2. 3.

Journal and Magazines	Journal of Hospital and Medical Management
E-Resources and Website	https://www.edureka.co/blog/operations-management-in-hospitals

Learning Method	Chalk and Talk/Assignment/Seminar	
2001111119		

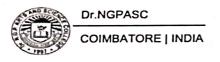
Focus of the	Skill Development/Entrepreneurial Development/Employability
Course	

Semester - I
CORE: BIOSTATISTICS AND OPERATIONS RESEARCH

Semester	Course Code	Course Name	Category	L	Т	P	Credits
	24HAP1CE	Biostatistics and Operations Research	CORE	48	12	-	4

Preamble Prerequis Course Ou	erstand than two populations Queueing theory nt.	
CO		
Number	Course Outcomes (COs) Statement	Bloom's Taxonomy Knowledge Level
CO1	Demonstrate the concept of probability distribution	K2
CO2	Compare the relation between Correlation and Regression	K2
CO3	Apply chi-square test and Analysis of Variance.	K3
CO4	Apply the concept of transportation and Assignment problem	кз
CO5	Analyze the concept of project network scheduling	K4

Mapping with Program Outcomes:							
COs / POs	PO1	PO2	PO3	PO4	PO5		
CO1	1	1		✓	1		
CO2	~	✓		1	✓		
CO3	1	✓		✓	✓		
CO4		~			✓		
CO5		✓	~		1		



Unit	Content	Hours	E-Contents / Resources
I	Probability Distributions: Probability distribution – Observed theoretical distributions – Binomial distribution – Pascal's Triangle – Multinomial Expression-Poisson distribution – Continuous probability distribution – Normal distribution – Standard Normal distribution - Measures of deviation from the Normal Distribution - Kurtosis	12	Text Book
Ш	Correlation and Regression: Introduction- Correlation – significance of correlation – Bivariate and Multivariate Distribution – Types of Correlation – positive and negative correlation – Linear and Non-linear Correlation-Simple partial and multiple correlation- Measure of correlation – Objectives of Regression analysis- Regression coefficients-Difference between regression analysis and correlation analysis-Coefficient of determination.	12	Text Book 1
ш	Chi – Square Test and Analysis of Variance: Formula for Determination of Chi – Square - Alternative formula - Chi – Square Distribution - Characteristics of Chi – Square Distribution - Working Rule for Chi – Square Test - 2x2 Contingency table - Calculation of Probability value - Assumptions of ANOVA - Test of ANOVA - Computation of Analysis of Variance ANOVA	12	Text Book 1
IV	Transportation Problem and Assignment Model: Definition- To represent Transportation problem as Linear Programming Problem Transportation Algorithm- North West Corner Rule to obtain Initial Basic Feasible Solution - Inspection Method to obtain Initial Basic Feasible Solution - Vogel's Approximation Methods to obtain Initial Basic Feasible Solution - Assignment problems - Difference between transportation and Assignment Models -To represent Assignment problems and transportation problems - Hungarian Algorithm	12	Text Book 2
V	Queueing theory and CPM, PERT: Introduction – Elements or Parameters of Queuing System – Steady state Balance Equation- Kendall's Notation for representing Queuing Models- Model 1: Single Server Model. Project planning using Critical path method – Terms used in CPM and PERT – Critical path method – Program Evaluation Review techniques – Difference between PERT and CPM	12	Text Book 2 & You Tube Videos
	Total	60	

Text Book	1.	Veer Bala Rastogi., 2011,"Fundamentals of Bio-Statistics", 2 nd Edition. Ane Books Pvt.Ltd, New Delhi
	2.	Rajagopal K, 2012,"Operations Research", First Edition, PHI Learning Pvt Ltd., New Delhi
Reference Books 1. Annadurai, B., 2015, "A Text Book of Bio Statistics", 1st Edition International Pvt. Ltd, New Delhi		Annadurai, B., 2015, "A Text Book of Bio Statistics", 1 st Edition, New Age International Pvt. Ltd, New Delhi
	2.	Crossand, and Moscrcadini A.O, 1976, "The Art of Mathematical Modeling", Ellis Harwood and John Wiley, New york
	3.	KantiSwarup, Gupta. P. K. and Man Mohan., 2007," Operations Research", 5th Edition. S. Chand & Sons Education Publications, New Delhi
	4. Hamdy A. Taha., 2014, "Operations Research: An Introduction" 9th Edition Pearson Education Publishers Pvt Ltd, New Delhi	

Journal and Magazines	https://www.worldscientific.com/worldscinet/bms
E-Resources and Website	https://nptel.ac.in

Learning Method	Chalk and Talk/Assignment/Seminar
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	Skill Development/Employability/Entrepreneurial development
Course	

SEMESTER I

CORE PRACTICAL -I:

SPREADSHEET MANAGEMENT

Semester	Course Code	CourseName	Category	L	Т	P	Credits
I	24HAP1CP	SPREADSHEET MANAGEMENT	CORE	-	-	48	2

S.No List of Programs

2

Prepare a Patient Record in Excel and perform the following: i. Prepare the Bill for the patient including the consultation fee and the no. of Tests taken.

Prepare an invoice excel sheet which consists of items, quantity and rate of the medicines purchased and do the following.

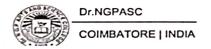
- i. Using of Product Formula for Calculate Amount = Qty*Rate
 - ii. How Many Items qty Greater Then > 20 and Less Then < 20
 - iii. Calculate Item Qty, Rate and Amount using Sumif Formula
- 3 Calculate patient bill amount based on patient ID using Vlookup functions.
- 4 Using nested if allot grade for nurses based on their marks.
- 5 Compare patient's data in excel using countif() functions.
- 6 Using Filter option extract the patient disease wise data
- 7 Apply multiple filtering criteria to extract the patient summary data.
- 8 Use pivot table option to summarize data in two or more sheets
- 9 Prepare a disease wise report using pivot table.
- 10 Calculate mean, standard deviation and standard error of the mean.
- i. Generate random numbers using random function.
 - ii. Identify the relation among variables using regression.
- Plot different types of charts to visualize the patient details.

Semester - I
DSE 1: TOTAL QUALITY MANAGEMENT TOOLS AND TECHNIQUES

mester Cou	irse Code	Course Name	Category	L	T	Р	Credits
1 241	IAP1DA	TOTAL QUALITY					
		MANAGEMENT TOOLS AND TECHNIQUES	DSE	48	-	-	4

D	TECHNIQUES	ĺ		
Preamble Prerequisit Course Ou	 This course has been designed for students to learn the Fundamentals of Total Quality Manager the various tools and techniques used in TO 	nent 1	n a Ho	spital
Number CO1	Course Outcomes (COs) Statement	Bloor Knov	m's Tax vledge l	onomy Level
CO ₂	understand the concept and origin of TQM analyze various strategies of TQM (TEI, GLP, WITs, GMP)		КЗ	
CO3	evaluate the various role in continuous improvement in TQM		K4 	
CO4	create and evaluate the various documentation on Quality Manual and Procedure		K6	
CO5	understand and analyze various Internal Auditing in ISO systems		K4	

Mapping with	Program Outo	omes:			
COs / POs	PO1	PO2	PO3	PO4	PO5
CO1	~	✓		✓	
CO2		✓	✓		✓
CO3		✓		1	1
CO4			✓	✓	1
CO5	1	✓			✓



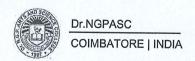
Unit	Content	Hours	E-Contents / Resources
I	Introduction to TQM Concept of Quality in emerging scenario of TQM – Origin and Philosophy of TQM –Factors motivating introduction of TQM –Role of HRD in TQM – Role of Participatory culture in TQM - Importance of TQM	9	Text Book
П	Role of Quality in Employee Involvement TEI (Total Employee Involvement) Strategy in TQM - Role of TEI – small group activities in TQM – Role of Quality Circles and Work Improvement teams (WITs). Good Laboratory Practices (GLP) and Good Manufacturing Practices (GMP)	10	Reference Book 1
Ш	Continuous Improvement in Quality Role of Continuous Improvement in TQM – Benchmarking and Business process reengineering - Zero defects – Quality costs and Planket Burman method – Kaizen – JIT, TAGUCHI, SMED, CEDAC.	10	Text Book
IV	Documentation Apex (Quality System) Manual / Procedure and Departmental manuals and work Instructions preparations- Policy amendment and documentation	9	NPTEL
V	Auditing Auditing – Audit team and responsibilities - Audit protocol - Types of Auditing – Internal Auditing – Second and Third party auditing – Role of Internet Auditing in ISO Systems - Patient satisfaction survey	10	You Tube Videos
	Total	48	

Text Book	1.	Bester field H. Dale. 2005. Total Quality Management. Pearson, London		
Reference Books	1.	S.K.Joshi. 2009. Quality Management in Hospitals. Jaypee Brother Medical Publishers (P) Ltd, Delhii		
	2.	Quality Management in Health Care, Principles and Methods, Donald Lighter and Douglas C Fair, Jones and Bartlett Publishers, 2004		
	3.	Dr. R. Kiran. 2016. Total Quality Management: Key Concepts and Case Studies. 1st edition. Butterworth-Heinemann		
	4.	John S. Oakland. 2014. Total Quality Management and Operational Excellence, 4th edition. Routledge.		

Journal and Magazines	https://www.toolshero.com/quality-management/total-quality-management-tqm/
E-Resources and Website	http://www.uop.edu.pk/ocontents/pdf

Learning Method	Chalk and Talk/Assignment/Seminar	all assets and a
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Focus of the Course	Skill Development/Entrepreneurial Development/Employability/Innovations
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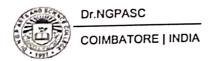


Semester - I DSE -I: ENTREPRENEURSHIP

Semester	Course Code	Course Name	Category	L	Т	P	Credits
1	24HAP1DB	Entrepreneurship	DSE	48	-	-	4

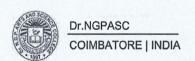
Preamble Prerequisit	n and understand	
Course Ou	Basic knowledge about Business tcomes (COs)	
CO Number	Course Outcomes (COs) Statement	Bloom's Taxonomy Knowledge Level
CO1	understand the overview of Entrepreneurship	К3
CO2	Create ideas for venture planning and development	K4
CO3	evaluate feasibility for various business plan	K5
CO4	evaluate the financial aspects of new venture	K5
CO5	analyse the role of Institutional support to Entrepreneurship	K5

Mapping with Program Outcomes:						
COs / POs	PO1	PO2	PO3	PO4	PO5	
CO1	✓	✓		1		
CO2	✓			✓	1	
CO3	1	✓	✓	✓	1	
CO4			✓	✓	1	
CO5	1	✓	✓		✓	



Syllabus

Unit	Content	Hours	E-Contents / Resources
Ι	Introduction to Entrepreneurship Entrepreneurship- Concepts and Overview- Evolution of Entrepreneurship in India- Entrepreneurial Traits- Models of Entrepreneurship- Entrepreneur vs. Manager- Opportunities for Entrepreneurs- women entrepreneurship- rural entrepreneurship	10	Text Book
П	Creating and Starting the Venture Entrepreneurial decision process- Sources of new Ideas- Methods of generating ideas- Problem solving- Venture planning and development process	9	Reference Book 1
Ш	Business Plan Nature and scope of Business plan- Writing Business Plan- Evaluating Business plans- Implementing business plans- Market Feasibility- Technical Feasibility-Project Report Preparation- Launching formalities.	10	Text Book
IV	Financing and Managing the new venture Sources of capital-Financial viability and control- Marketing and sales controls - Joint ventures- Acquisitions- Mergers- Franchising- Public issues- Rights issues - Bonus issues and Stock splits.	10	NPTEL
V	Institutional support to Entrepreneurship Role of Directorate of Industries- District Industries Centers (DICs)- Industrial Development Corporation (IDC)- State Financial corporation (SFCs)- Commercial banks Small Scale Industries Development Corporations (SSIDCs)- Khadi and village Industries Commission (KVIC)- National Small Industries Corporation (NSIC)- Small Industries Development Bank of India (SIDBI)	9	You Tube Videos
	Total	48	



Text Book	1.	Robert D Hisrich, M P Peters, D A Shepherd. 2017. Entrepreneurship,, 10 edition, McGraw Hill					
Reference Books	1.	Rajeev Roy. 2011Entrepreneurship, 2 nd edition, Oxford Higher Education					
	2.	David H Holt, 2019, Entrepreneurship, New Venture Creation, Prentice Hall					
	3.	Alexander Osterwalder & Yves Pigneur, 2010. Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers (The Strategyzer series), 1st edition), John Wiley and Sons					
	4.	Robert D. Hisrich, Michael P. Peters, Dean A. Shepherd, 2018, "Entrepreneurship", 10th Edition, Tata McGraw Hill.					

Journal and Magazines	https://xime.org/jme/jme-home
E-Resources and Website	https://www.iare.ac.in/sites/default/files/lecture_notes/IARE_Entreprene urial_Development_NOTES.pdf

Learning Method	Chalk and Talk/Assignment/Seminar

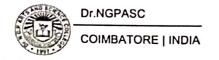
Focus of the Course	Skill Development/Entrepreneurial Development/Employability/Innovations
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Semester - I
DSE -1: TECHNOLOGY IN HEALTHCARE

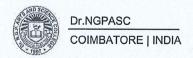
Semester	Course Code	Course Name	Category	L	Т	P	Credits
I	24HAP1DC	TECHNOLOGY IN HEALTHCARE	DSE	48	-	-	4

Dragowald				
Preamble	This course has been designed for students to learn an	d understand		
	 The functionals of the office Automation App Management System 	olications & Database		
	Knowledge in IOT & Hospital Information System			
D	The Development of Mobile Health Care Services.			
Prerequisi	te Knowledge on Computer Fundamentals			
Course Ou	tcomes (COs)			
CO Number	Course Outcomes (COs) Statement Bloom's Taxono Knowledge Leve			
CO1	Understand functionals of the office Automation Applications	К3		
CO2	Obtain knowledge on database environment	К3		
CO3	Know the functions of IOT in Health Care	К3		
CO4	Learn the concepts of Hospital Information System	K4		
CO5	Analyze the various Applications in Health Care.	K5		

Mapping with Program Outcomes:							
COs / POs	PO1	PO2	PO3	PO4	PO5		
CO1	✓			✓	✓		
CO2		✓			✓		
CO3	✓	✓		✓	✓		
CO4	-		✓				
CO5	✓	✓			✓		



Unit	Content	Hours	E-Contents / Resources
I	Office Automation Applications Office Automation Applications – Word Processor (MS - Word), Spreadsheet (MSExcel), Graphics & Presentation (MS-Powerpoint); Database Management System (ACCESS)-Internet & Advanced Communication-Internet applications for Health care- Case Study: Case Study on general Automation Office Applications.	10	Text Book1
п	Database Management System Database – Definition, terms, common function, Basic data processing, Database and spreadsheet operations - Database Management System – Introduction to database management system, design, development, deployment, and evaluation of database systems, data integrity, security- Electronic Health Records- Case Study on Database Management System.	8	Reference Book1
Ш	Introduction to IoT Introduction of Internet of Things (IoT): Physical Design of IoT, Logical Design of IoT, IoT Enabling Technologies, IoT Levels & Deployment Templates- IoT Design Methodology. IoT Physical Devices & Endpoints: Basic building blocks of an IoT device IoT Applications for Health & Lifestyle-IoT devices in health - Tele Health - Tele medicine- Case Study on IoT in Telemedicine.	10	Reference Book2
IV	Hospital Information System (HIS)- Advantages- Structuring Medical Records - Automated Clinical Laboratory Systems & Radiology Information System- Role of Database in HIS- Need of Networking in HIS-Inventory Management Systems (IMS) - main purpose of inventory management- types of inventory management essentials of a good Inventory Management Software- Benefits of an Inventory Management System in Healthcare - Case Study: Hospital Information System Case study on Process and Operations	10	Reference Book 3
v	Mobile Health Services Mobile Health Services-Medical Uses- Mobile Device Operating System Technology- Air Quality Sensing Technologies- Open Source Software Packages For Mhealth- Health Insurance Portals- Social Health Insurance- Community Based Health Insurance- Voluntary Health Insurance-Benefits- Key Features For Health Insurance Portals-Different Types Insurance Portal-Pros And Cons of Web Portals - Case Study: A case study of Mobile Health Units in Tamil Nadu.	10	Reference Book4
	Total	48	



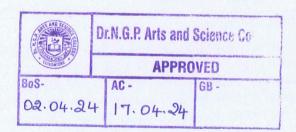
Text Book	1.	Andra Cable, Steven M. Freund, Ellen Monk, Susan L. Sebok, Joy L. Starks, and Misty E. Vermaat, 2019 "Microsoft Office 365 & Office (2019) Introductory
Reference Books	1.	ElmasriRamez and NavatheShamkant.B,2017, "Fundamentals of Database Systems", (7th Edn.), Addison Wesley
	2.	ArshdeepBahga, Vijay Madisetti, ,2015,"Internet of Things" – A hands-on approach Universities Press
	3.	Joydeep Das Gupta, 2015, "Hospital Administration and Management", Jaypee Brothers Medical Publishers
	4.	Robert Istepanian, Swamy Laxminarayan, (2010),"M-Health: Emerging Mobile Health Systems", Springer

Journal and Magazines	https://www.inderscience.com/jhome.php?jcode=ijhtm
E-Resources and Website	https://www.javatpoint.com/iot-healthcaremHealth (who.int)

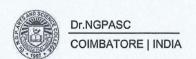
Learning Method	Chalk and Talk/Assignment/Seminar
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Focus of the Course	Skill Development/Employability/Innovations
---------------------	---

Bes Chairman/HoD
Department of Hospital Administration
Dr. N. G. P. Arts and Science College
Coimbatore — 641 048







Semester - II CORE: HOSPITAL ARCHITECTURE DESIGN AND PLANNING

Semester	Course Code	Course Name	Category	L	Т	P	Credits
11	24HAP2CA	HOSPITAL ARCHITECTURE DESIGN AND PLANNING	CORE	60	-	-	4

Preamble	 This course has been designed for students to learn and understand planning and operations of hospitals to develop concepts and strategies for quality architectural projects the design and maintenance of hospital systems 				
Prerequisit	Knowledge in Hospital Operations				
Course Out	comes (COs)	ı			
CO Number	Course Outcomes (COs) Statement	Bloom's Taxonomy Knowledge Level			
CO1	compare and analyze the changing roles of hospital	К4			
CO2	assess the plan required to build a hospital	K4			
CO3	analyse the various legal documents for hospital projects	K4			
CO4	develop effective hospital standards and design	К5			
CO5	design and create models of various departments of Hospitals	К5			

Mapping with Program Outcomes:						
COs / POs	PO1	PO2	PO3	PO4	PO5	
CO1	✓	1		✓	✓	
CO2		✓	1	✓	✓	
CO3		, ,,,	✓	~	✓	
CO4		i ya ji ili	=	✓	✓	
CO5			✓	✓	✓	

24HAP2CA

CORE: HOSPITAL ARCHITECTURE DESIGN AND PLANNING

	Synabus		
Unit	Content	Hours	E-Contents / Resources
I	Evolving Role of Hospitals Hospital as a system - Various Departments in Hospital- Changing role of hospitals - Hospital Administrator - Roles and Functions	12	Text Book
п	Hospital Planning Process of Hospital planning – Compliance- Expandability- Operational and functional planning - Planning team – Site selection – Master plan – Zonal distribution – Space requirement –Facility Planning (NABH)- Green Field Vs Brown Field project- Ventilation & Lighting -construction & commissioning - Equipping a hospital- Budgeting	12	Reference Book 2
ш	Hospital Design Hospital Project management - Role of architect - Designing - Clinical services - Supportive services - Utility services - legal formalities - Contract Administration-Environment regulations - Environmental Consideration- Equipment planning - Installation and Commissioning -Bed distribution - Space requirements - relationships	12	Text Book
IV	Hospital Standards General standards for designing hospital facilities – Design parameters – Patient Centered Care- Optimization - Licensing and documentation – Mechanical standards - Electrical standards – Standard for centralized medical gas system –Standards for Biomedical waste – Engineering standards - Safety and Security -Disaster management	12	Reference Book 1
v	Recent trends in Hospital Planning Green Hospital Design - Healing Architecture - Value added services in hospital - Virtual healthcare - Smart Hospitals.	12	Reference Book 2
	Total	60	

Text Book	1.	M Shaharkar, 2009. Principles Hospital Administration and Planning, 2nd edition. Jaypee Brothers Medical Publishers (P) Ltd, New Delhi.
Reference Books		Syed Amin Tabish. 2003. Hospitals and Nursing Homes Planning Organisations and Management Jaypee Brothers Medical Publishers (P) Ltd, Delhi
	2.	G.D.Kunders. 2007. Hospital Facilities Planning and Management. Tata McGraw Hill Pvt Ltd, New Delhi)
	3.	S.Choudry - Project Management, Tata McGrawhill Education Pvt Ltd
	4.	S.L. Goel. 2004. Healthcare Organization and structure. Deep and Deep Publications Pvt. Ltd, New Delhi.

Journal and Magazines	https://healthcaredesignmagazine.com/trends/architecture/
E-Resources and Website	http://surl.li/jojadq

Learning Method	Chalk and Talk/Assignment/Seminar
1	

Focus of the	Skill	Development/	Entrepreneurial	Development/	Employability/
Course	Innov	ations/Social A	Awareness/Environ	nment	

Semester - II CORE : HEALTHCARE ECONOMICS

provenience or section of the sectio	Semester	Course Code	Course Name	Category	L	Т	P	Credits
-	11	24HAP2CB	HEALTHCARE ECONOMICS	CORE	48	-	-	4

Preamble Prerequisit	This course has been designed for students to learn and understand		
Course Ou	tcomes (COs)		
CO Number	Course Outcomes (COs) Statement	Bloom's Taxonomy Knowledge Level	
CO1	apply economic laws in healthcare		
CO2	assess production and cost in healthcare K4		
CO3	evaluate healthcare market services K5		
CO4	assess health insurance schemes K4		
CO5	analyze the impact of healthcare on economic growth K4		

Mapping with	Program Outcom	mes:		· · · · · · · · · · · · · · · · · · ·	
COs / POs	PO1	PO2	PO3	PO4	PO5
CO1	✓	✓	✓		
CO2	Trans.	✓	<i>i.</i>		
CO3		¥	1	✓	1
CO4	ely-	, i	✓	✓	✓
CO5	4, 4		✓	✓	1

24HAP2CB

CORE: HEALTHCARE ECONOMICS

Unit	Content	Hours	E-Contents / Resources
1	Fundamental Concepts Economics and Healthcare Economics- Healthcare: need and importance – Theory of Utility- Theory of Demand- Concepts of Price-income-Cross Price Elasticities- Demand and Supply of Healthcare and Determinants – Healthcare: Issues and Challenges - Roles and Responsibilities of a Health Economist	8	Text Book
11	Production and Cost Concepts Price determination - Grossman's model of healthcare - Theory of Production - Production of Health and Healthcare - Health production function - Investment in Healthcare - Capital Budgeting and Types - Concept of Economic Evaluation - Types	10	Text Book
III	Healthcare Services Healthcare Industry in India - Healthcare System - Public and Private - Corporate Social Responsibility - Market Failure in Healthcare - Need for Government Intervention in Healthcare Services - National Health Policy - Universal Health Coverage (UHC)- Government Schemes	10	Text Book
IV	Health Insurance Health Insurance – Importance - Features of Health Insurance Policies - Fiscal & Monetary policy- Challenges of Public Sector/ Government Sector - Demand and Supply for Health Insurance - Factors Influencing Demand - Theories of Decision Making in Health Insurance - Medicaid and Medicare - Employer Sponsored Insurance - Cost Sharing - Uninsured - Moral Hazard.	10	Reference Book 1
v	Healthcare and Economic Growth Health Indicators - Healthcare Financing across Different Countries of the World and in India -		Reference Book 3

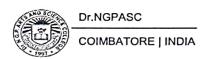
Physician Control Models Total	48	<u>.</u>
Importance of PPP Model- Alternative Models of Hospital Behaviour- Utility Maximizing Model-		

Text Book	1.	N. K. Anand & ShikhaGoel (2008), Health Economics, A.I.T.B.S.
		Publishers, India.
Reference	1.	James W. Henderson (2005), Health Economics and Policy, Centage
Books	1.	Learning India Pvt. Ltd., New Delhi
	1	Haggard, Odeyar, D, Hospital Management, Mohit Publications, New
	2.	Delhi)
	3.	Dutta Shuvendu Bikash (2013), Health Economics for Hospital
	3.	Dutta Shuvendu Bikash (2013), Health Economics for Hospital Management, Jaypee Brothers Medical Publishers
	4.	Sumitra Naha (Das) (2021), Introduction to the Economics of Health and
		Education, Abhijeet Publications

Journal and Magazines	https://www.sciencedirect.com/journal/journal-of-health-economics
E-Resources and Website	https://www.cartercenter.org/resources/pdfs/health/ephti/library/lecture_notes/health_science_students/ln_intro_to_health_economics_final.pdf

Learning Method	Chalk and Talk/Assignment/Seminar

Focus of the	Skill Development/Entrepreneurial Development/Employability/ Soci	al
Course	Awareness/ Environment/ Constitutional Rights/ Human Values/ Ethio	cs



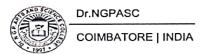
Semester - II

CORE : HUMAN RESOURCE MANAGEMENT AND INDUSTRIAL RELATIONS

Semester	Course Code	Course Name	Category	L	Т	P	Credits
II	24HAP2CC	HUMAN RESOURCE MANAGEMENT AND INDUSTRIAL RELATIONS	CORE	60	ı	-	4

Preamble	 This course has been designed for students to learn and understand the functional areas of Human Resource Management in Healthcare industry the process of Human Resource Management in the Healthcare Industry 					
	the Performance Appraisal System and Employee Welf-	are Acts				
Prerequisite	Knowledge on Management concept					
Course Outcor	nes (COs)					
CO Number	Course Outcomes (COs) Statement Bloom's Taxonomy Knowledge Level					
CO1	apply the concepts of HRM among the healthcare personnel	К3				
CO2	analyze the demand and supply forecast in HR management	К4				
CO3	evaluate the functions of HR in Healthcare Industry	K5				
CO4	formulate the performance appraisal strategies used in the healthcare industries	K5				
CO5	assess various employee welfare acts related to healthcare industry	K5				

Mapping with Program Outcomes:								
COs / POs	PO1	PO2	PO3	PO4	PO5			
CO1	✓	✓	√					
CO2	✓	✓		✓				
CO3	✓		✓	1	✓			
CO4			✓	✓				
CO5		~	✓ //	✓	✓			



24HAP2CC

CORE: HUMAN RESOURCE MANAGEMENT AND INDUSTRIAL RELATIONS

Unit	Content	Hours	E-Contents / Resources
1	Concept of Human Resource Management HRM- Meaning and Definition- Objective- Importance- Nature- Characteristics- Functions and Role of HRM – HR systems- HR Policies and procedures	12	Text Book
П	Job Analysis, Career Planning and Development Job design – Job analysis - Job description - Job specification – Manpower requirement Analysis - Job roles – Job Enrichment – Job Enlargement - Re-skilling - Up-skilling - Promotion – Transfer- Demotion – Employee engagement - Absenteeism- Labour turn over - Steps in Career Planning and Development		Reference Book 2
Ш	Recruitment and Selection, Training Objectives of Recruitment - Recruitment policy - Sources of recruitment - Traditional techniques - Modern techniques - Selection - Selection procedure - Placement - Induction - Competency Mapping-Talent Management - Training - Process - Need analysis - Training techniques - Training effectiveness.	12	Text Book
IV	Performance Appraisal and Compensation Management Definition – Purpose- Process - Performance Appraisal Indicators- Methods of appraisal- Traditional Method - Modern Methods- Compensation Management- Planning- Managing Employee Benefits - Retention, Replacement cost - Grievance Redressal of System- Role of HR in Safety management	12	Reference Book 1
v	Employee's Welfare Acts Factories Act, 1948 - Maternity Benefit Act,1961 - Employee State Insurance Act, [ESI] 1948 - Employees' Provident Fund Scheme, 1952 - Payment of Bonus Act, 1965 - Workmen's Compensation Act, 1923 - Contract Labour Act (R&A), 1970 -Payment of Gratuity Act 1972- Introduction to payment of wages act 1936	12	Reference Book 2
	Total	60	

Text Book		R.C.Goyal. 2005. Hospital Administration and Human Resource
	1.	R.C.Goyal. 2005. Hospital Administration and Human Resource Management. 4th Edition.Prentice hall of India Pvt Ltd, New Delhi.
Reference		Subbarao. 2009. Personnel and Human resource Management Text and
Books	1.	cases. , 4th Edition. Himalaya Publishing House Pvt Ltd, Mumbai
		R.S. Davar.1988. Reprinted 2010. Personnel Management and Industrial
	2.	relations. 12th revised Edition. Vikas Publishing House Pvt Ltd, New
		Delhi
	3.	Dipak Kumar Bhattacharyya 2011. Performance Management System &
	3.	Strategies. Dorling Kinderseley (India) Pvt. Ltd , Noida
	4	Gary Dessler, 2017. Human Resource Management. 15th Edition. Pearson
	4.	Publications, New Delhi.

Journal and Magazines	https://www.managementstudyguide.com/human-resource-management.htm
E-Resources and Website	http://www.whatishumanresource.com/hrm-linkage-with-labour-laws

Learning Method	Chalk and Talk/Assignment/Seminar
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Course	Skill Development/Entrepreneurial Development/Employability/ Gender Sensitization/ Social Awareness/ Environment/ Constitutional Rights/ Human Values/ Ethics
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Semester - II CORE: MATERIALS MANAGEMENT

5	Semester	Course Code	Course Name	Category	L	Т	P	Credits
	11	24HAP2CD	MATERIALS MANAGEMENT	CORE	48	-	1	.4

Preamble	d understand system ies in Hospitals ospital stores	
Prerequisite	Knowledge in Management	
Course Out	comes (COs)	
CO Number	Course Outcomes (COs) Statement	Bloom's Taxonomy Knowledge Level
CO1	classify different concepts of Integrated Materials Management in healthcare industry	К3
CO2	evaluate the system involved in purchase management	К5
CO3	analyze and develop store management techniques	К5
CO4	develop the strategic concepts of inventory management in Healthcare	К5
CO5	outline the application of Information Technology in stores	К4

Mapping with Program Outcomes:									
COs / POs	PO1	PO2	PO3	PO4	PO5				
CO1	1	1							
CO2		✓	100	1	- <u>.</u>				
CO3		✓	1	1	1				
CO4	,	✓	1	1	1				
CO5			✓	✓	1				

24HAP2CD

CORE: MATERIALS MANAGEMENT

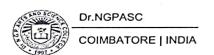
Unit	Content	Hours	E-Contents / Resources
I	Integrated Materials Management Need for Integrated Concept – Definition and scope – Advantages in Integrated Material Management Concept- Organization Based on Commodities – Functions – Location – Interdepartmental Relationship – Warehousing - Functions- Types-Material Planning and Budgeting	8	Text Book
II	Purchasing Management Purchase System - Functions - Price Forecasting - Purchase of Capital Equipments - International Purchasing - EXIM Policy and Procedure- Vendor Management - Buyer and Seller Relation and Ethics- Tendering Procedures- Purchase Vs Leasing Decision- Surplus and Scrap Management	10	Reference Book 4
III	Stores and Inventory Management Definition – Concept of Stores- Types of Stores- System and Procedures – Role and Functions of Store Manager- Hygiene Standards in Stores - Stores Accounting- Stock verification- Stock adjustment- Stock valuation methods- Space Management	10	Text Book
IV	Inventory Management and Techniques Inventory Management – Different Types of Hospital Inventories - Techniques in Inventory Management – LIFO - FIFO - EOQ, ABC, VED, FSN Analysis–5S techniques in stores management - Card System and Use Of Bin Cards- Quality Control- Value Analysis, Condemnation & Disposal	10	Reference Book 2
V	Information Technologies in Materials Management Material Resource Planning System -MIS Reports in Material Management - Product Coding and Tracking - e- Procurement-Various Purchase and Store Modules - Software in Materials Management	10	Reference Book 1
	Total	48	1

Text Book	1.	P.Gopalakrishnan and Sundaresan. 2011. Materials Management an Integrated Approach. Prentice Hall of India Pvt. Ltd, New Delhi.
Reference Books	1.	M.M.Varma. 2010. Materials Management. 4th Edition. Sultan Chand & Sons New Delhi
	2.	Shakthi Gupta. Sunil Kant. 2012. Hospital Stores Management an Integrated Approach. Jay pee Brothers medical publishers Pvt. Ltd, New Delhi
	3.	Rajendra Mishra. 2007. Materials Management, Excel Books Pvt. Ltd , New Delhi
	4.	P.Gopalakrishnan. 2006. Purchasing and Materials Management, Tata McGraw-Publishing Company Limited

Journal and Magazines	https://iimm.org/national-publications/
E-Resources and Website	https://www.purchasing-procurement-center.com/hospital-materials-management.html

Learning Method	Chalk and Talk/Assignment/Seminar	
		J

Focus of the Course	Skill Development/Entrepreneurial Development/Employability/ Innovations
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Semester - II

CORE: HEALTHCARE MARKETING AND STRATEGIC MANAGEMENT

Semester	Course Code	Course Name	Category	L	Т	Р	Credits
II	24HAP2CE	HEALTHCARE MARKETING AND STRATEGIC MANAGEMENT	CORE	60	-	-	3

Preamble	 This course has been designed for students to learn and und Service marketing from planning to pricing strateging research the nature of Business Policy and Strategic Manages Strategic Decisions and Business Ethics the creative problem analysis and evaluate the strate 	ement, Characteristics of
Prerequisi	te Knowledge on Management concept	
Course Oi	ntcomes (COs)	
CO Number	Course Outcomes (COs) Statement Knowledge	
CO1	build and apply knowledge on general aspects of service K3 marketing	
CO2	assess marketing mix variables and a practical application in K4 context to marketing management	
CO3	analyze the Nature of Business Policy and Strategic Management, and Business Ethics	
CO4	explain in detail about Strategic Management process subjective to marketing management	
CO5	explain and develop detailed idea about the environmental analysis and its industrial applications K5	

apping with P	rogram Outcomes	::		A	
COs / POs	PO1	PO2	PO3	PO4	PO5
CO1	✓	✓		✓	
CO2	1	1	· 🗸	✓	
CO3		✓	✓	1	
CO4		✓	~	√ ·	
CO5		1	✓	✓	~

24HAP2CE

CORE: HEALTHCARE MARKETING AND STRATEGIC MANAGEMENT

	Syllabus		
Unit	Content	Hours	E-Contents / Resources
I	Marketing Concept Marketing concepts- Need- Principles- Services - Marketing environment- Five I's - Salient features- Classification of services - Dichotomous classification of services - Cross classification of Services - Schmenner's Classification	12	Text Book
II	Dimensions of Marketing Process - Elements - Service Expectations - Performance - Market Economic Dimensions - Service Style - Segmentation Variables - Market Targeting in Services - Customer loyalty - Customer Bonding	12	Reference Book 2
ш	Marketing Mix & Advertising Elements of Marketing Mix - Service Marketing triangles - 4A's of Marketing-7P's of Service Marketing - Collaborative Marketing - Media Relations - Branding - Advertisement - Promotion - Free Health Camps - Digital Marketing for Hospital	12	Text Book
IV	Strategic Management Introduction - Nature of Business Policy and Strategic Management - Strategic Management Process - Strategic Decision Making- Characteristics - Corporate Governance - Business Ethics - Strategic Change - Creative Problem Analysis	12	Reference Book 1
V	Strategic Analysis Tools SWOT Analysis - PESTLE Analysis- Porter's five force model- Blue ocean strategy - VRIO Framework- Portfolio Analysis using BCG- Strategic management process - Corporate Social Responsibility	12	Reference Book 1
	Total	60	

Text Book		Mr. Nimit Chowdhary and Mrs. Monika Chowdhary. 2015. Text Book of
	1.	Marketing services. Macmillan India Limited. (Third Edition).
Reference		P.Subba Rao. 2011. Business Policy and Strategic Management. Himalaya
Books	1.	Publishing House, (Fourth Edition)
	1	Philip Kotler and Gary Armstrong. 2012. Principles of Marketing. Pearson
	2.	Education Pvt Ltd, (Twelth Edition).
		Philip Kotler, Joel Shalowitz and Robert J. Stevens. 2008. Strategic
	3.	Marketing For Health Care Organizations: Building A Customer-Driven
		Health System.Jossey- Bass(First Edition)
	4.	Peter.M. Ginter. 2013. Strategic Management of Healthcare Organization.
	1.	Jossey- Bass Publication, (Seventh Edition.

Journal and Magazines	https://www.evariant.com/faq/what-is-healthcare-marketing
E-Resources and Website	https://www.wallstreetmojo.com/strategic-management/

Learning Method	Chalk and Talk/Assignment/Seminar
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Focus of the	Skill Development /Entrepreneurial Development /Employability/
Course	Innovations/ Social Awareness/ Environment/ Constitutional Rights/
	Human Values/ Ethics
	,

Semester - II
DSE: APPLICATION OF QUALITY IN HEALTHCARE

Semester	Course Code	Course Name	Category	L	Т	P	Credits
II	24HAP2DA	APPLICATION OF QUALITY IN HEALTHCARE	DSE	48	1	1	4

Preamble	d understand ng in Quality system s for quality nagement systems			
Prerequisi	te Knowledge in Quality Management			
Course Ou	atcomes (COs)			
CO Number	Course Outcomes (COs) Statement	Bloom's Taxonomy Knowledge Level		
CO1	analyze the concept of Benchmarking system	K3		
CO2	asses the Quality Functional Deployment and Benefits	K4		
CO3	evaluate Organizational Re-engineering framework and impact assessment	K5		
CO4	evaluate the statistical process control and its development	K5		
CO5	design the Quality Management System in Healthcare	K5		

Mapping with Program Outcomes:							
COs / POs	PO1	PO2	PO3	PO4	PO5		
CO1	1	✓	,				
CO2		~	31	✓	1		
CO3			✓	✓	1		
CO4	8/6	1	·	1	1		
CO5		✓	✓	✓	✓		

24HAP2DA

DSE: APPLICATION OF QUALITY IN HEALTHCARE

Unit	Content	Hours	E-Contents / Resources
I	Benchmarking Process Benchmarking – Introduction – Process of Benchmarking – Benefits – Pitfalls – Success Indicators – Gap Analysis process – Benchmarking template – Initiating the process of Benchmarking - Application	8	Text Book
II	Quality Function Deployment Concept Quality Function deployment –QFD Concept – QFD process – QFD Team – Benefit of QFD – Patient feedback – House of Quality	10	Reference Book 1
Ш	Business Process Reengineering Organizational Reengineering – Conceptual framework process – Process Re- engineering- BPR Philosophy – Possibilities and pitfalls – Opportunity assessment – Impact Assessment – Planning Implementation of the transition	10	Reference Book 2
IV	Statistical Process Control History - Development - Statistical fundamentals - Pareto diagram - Process flow diagram - Cause and effect diagram - Check sheets - Histogram - Various Control charts - Different Control charts for Variable state of Control - Scatter Diagrams - Problems & Application	10	Text Book
v	Quality Management System in Healthcare Essentials of Quality Improvement in Healthcare - Implementation of Quality Management System in a Hospital - Evaluation of the success of QMS - Statistical approach - Medical Audit - Nursing Audit - Equipment Audit - Patient Satisfaction	10	Reference Book 3
	Total	48	-

Text Book	1.	Bester field H. Dale. 2005. Total Quality Management, Pearson, London					
Reference Books	1.	S.K. Joshi. Quality Management in Hospitals. Jaypee Brothers Medical Publishers (P) Ltd, 2014, Delhi					
	2.	John S. Oakland. 2014. Total Quality Management , 3rd edition. Butterworth- Heinemann Publications					
	3.	S.Saravanavel & S.Balakumar .2015. Total Quality Management, Margham Publications					
	4.	Prof. K. Shridhara Bhat.2010, Total Quality Management, Global Media.					

Journal and Magazines	https://academic.oup.com/intqhc
E-Resources and Website	http://www.fmshk.org/database/articles/06mbdrflkay.pdf

Learning Method	Chalk and Talk/Assignment/Seminar	9
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Focus of the	Skill Development/Entrepreneurial	Development/Employability/
Course	Innovations	

Semester - II
DSE: INNOVATION IN ENTREPRENEURSHIP

Semester	Course Code	Course Name	Category	L	Т	P	Credits
11	24HAP2DB	INNOVATION IN ENTREPRENEURSHIP	DSE	48	-	-	4

Preamble Prerequis	This course has been designed for students to learn and understand the importance of Innovation in Entrepreneurship the different business models to generate innovative ideas the concepts to create innovation and strategic development entrepreneurship Knowledge in Entrepreneurship					
Course O	itcomes (COs)					
CO Number	Course Outcomes (COs) Statement	Bloom's Taxonomy Knowledge Level				
CO1	understand the concept of Innovation	K3				
CO2	analyze the concept of creative thinking	K4				
CO3	evaluate the various business models K5					
CO4	assess the technology innovation process for patent and copyright.	K5				
CO5	analyze the strategic involvement for sustainable innovation and future market.	к4				

Mapping with Program Outcomes:							
COs / POs	PO1	PO2	PO3	PO4	PO5		
CO1	~	T T	✓	1			
CO2	1	1	✓		✓		
CO3	✓	✓		✓ _¾	✓		
CO4		✓	✓		✓		
CO5	✓	✓	✓	✓			

24HAP2DB

DSE: INNOVATION IN ENTREPRENEURSHIP

Unit	Content	Hours	E-Contents / Resources	
I	Concept of Innovation Innovation - Invention Vs Innovation - Innovation and Creativity - Innovation in Current Environment - Types of Innovation - Product innovation and process - Characteristics of innovation in different sectors			
П	Innovation Management Experimentation in Innovation Management - Steps of Innovation Management - Innovation as a systematic practice - Idea Management System - Divergent V/s Convergent Thinking - Challenges of Innovation - Design Thinking - Idea Championship - Participation for Innovation - Co-creation for Innovation	10	Reference Book 1	
ш	Business models and prototyping Business Model - Creativity Business model Vs Classical Approach - Evolution of the business model - Generation of ideas: Brainstorming - Exploration of business models for material efficiency services - Proto typing to Incubation - Business Plan	10	Reference Book 2	
IV	Patents and Copyrights Marketing of Innovation - Technology Innovation Process - Technological Innovation Management Planning and strategies - Management of Innovation - creation of IPR - Types of IPR - Patents and Copyrights - Patents in India.		Text Book	
V	Sustainable innovation and future markets Sustainability Innovation and Entrepreneurship - Innovation Sustainable Conditions - Innovation: Context and Pattern - SME'S strategic involvement in sustainable development - Business Model Failure: Reasons and Remedies -Incubators: Business Vs Technology - Managing	10	Reference Book 3	

Investor for Innovation - Future markets and Innovation needs for India.		
Total	48	

Text Book	1	Peter F Drucker (2006). Innovation and entrepreneurship. Harper Business
Reference		Osterwalder, A and Pigneur, Y (2009). Business Model Generation.
Books	1.	(1stEdn.), Alexander Oster & Yves Pigneur Publishers
		Rishikesha T. Krishnan and Vinay Dabholkar . 8 Steps To Innovation :
	2.	Rishikesha 1. Krishilah and Villay Dabhokar . 6 Steps 15 ==
	2.	Going From Jugaad To Excellence)
		John Bessant and Joe Tidd,,. (2008). , Innovation and Entrepreneurship.
	3.	(1st Edn.) Wiley (2nd edition)
		Robert D. Hisrich, Michael P. Peters, Dean A. Shepherd, 2018,
	4.	Robert D. History Wherace 1. Telesy Dear 1.
i i shi ku	4.	"Entrepreneurship", 10th Edition, Tata McGraw Hill.

Journal and Magazines	https://journals.sagepub.com/overview-metric/JOE?	Pyl.
E-Resources and Website	https://www.tandfonline.com/toc/tepn20/current	1 1 1

Learning Method	Chalk and Talk/Assignment/Seminar	4 2

9.7	Skill Development/Entrepreneurial Development/Employability/ Innovations/ Gender Sensitization/ Social Awareness/ Environment/ Constitutional Rights
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Semester - II
DSE: HEALTHCARE DATA MANAGEMENT

Semester	Course Code	Course Name	Category	L	Т	P	Credits
11	24HAP2DC	HEALTHCARE DATA MANAGEMENT	DSE	48	-,	-	4

Preamble Prerequis	 principles and practices in Healthcare Data processing and management of Electronic H statistical measures and Information Securit 	This course has been designed for students to learn and understand • principles and practices in Healthcare Data Management • processing and management of Electronic Health Records • statistical measures and Information Security in Healthcare			
	ite Knowledge in Technology in Healthcare utcomes (COs)	· · · · · ·			
CO Number	Course Outcomes (COs) Statement	Bloom's Taxonomy Knowledge Level			
CO1	understand the standards in Health Information Documentation	K3			
CO2	appraise Health Information Management functions in health records	K4			
CO3	compare the technologies in Electronic Health Record management	к4			
CO4	analyze the various statistical measures used in healthcare data	к4			
CO5	formulate the elements of Information Security	к5			

Mapping with	Program Outcomes	S: ,			
COs / POs	PO1	PO2	PO3	PO4	PO5
CO1	✓	h_1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 =	Y 16		1
CO2		✓	V 17 11 11	✓	*
CO3	1	¥ (1)		✓	✓
CO4	Day Day	✓	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	✓	✓
CO5	1	1			1

24HAP2DC

DSE: HEALTHCARE DATA MANAGEMENT

	Synabus		
Unit	Content	Hours	E-Contents / Resources
I	Health Information Management History of Health Information Management - Health Record : Purpose - Functions - Documentation Standards - Health Record Documentation: Acute Care Health Record Documentation - Principles and Practices - Format - Healthcare Data Sets: Data Sets- Types- Emerging Health Information Standards	10	Text Book
п	Health Information Functions and Data sources HIM Functions and Services- Master Patient Index- HIM Functions in an Electronic Environment - Legal Health Record - Clinical Coding - Secondary Data Sources: Differences between Primary and Secondary Data Sources and Databases- Purposes and Users - Types - Processing and Maintenance of Secondary Databases	10	Text Book
Ш	Electronic Health Record Electronic Health Record: Introduction - The EHR System-EHR System Applications- Challenges in Implementation - Initiatives and Framework - Technologies -Databases and Data Storage - Hardware Infrastructure- Acquisition-Information Management-Future Directions	10	Text Book
IV	Statistics in Healthcare Introduction to measurement – Discrete Vs continuous Data – Statistical measures in healthcare – Statistical data used in healthcare – Patient care and clinical statistical data- Case-Mix statistical data- Presentation of Statistical Data - Descriptive Statistics	10	Text Book
V	Data Visualization Handling Data - Formatting Data: Data formats - Formatting tools - Formatting with code-Ratios - Rates: - Visualizing Rates - Proportions and Percentages - Scatterplots -	.stmb 1918 De	Reference Book 1

	Regression and Trend Lines- The Timeline - Dashboards - Types of Dashboards - Building Exploratory Dashboards-		
- 13	Total	48	

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Text Book	1.	Nanette B Sayles, Health Information Management Technology: An			
	1.	Applied Approach, 2012, 4th Edition, Ahima Press			
Reference Books	1.	Ben Jones, Communication Data with Tableau, 2014, 1st Edition., O'Reilly Media			
	2.	Yang, Eva K.Lee, Healthcare Data Analytics : From Data to Knowledge to Healthcare Improvement, 2016, Wiley)			
	3.	Horton L, Calculating and Reporting Healthcare Statistics, 5th Edition, 2017, AHIMA Press)			
	4.	L B Madsen, Data-Driven Healthcare - How Analytics and BI are Transforming the Industry, 2014, Wiley			

Journal and Magazines	https://journals.sagepub.com/home/HIM
E-Resources and Website	https://www.healthtechmagazines.com/healthcare-analytics/

Learning Method	Chalk and Talk/Assignment/Seminar
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Focus of the Course Skill Development/Entrepreneurial Innovations/ Constitutional Rights	Development/Employability/
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