Adesh University Course Structure for MBA in Hospital Administration (Part-time)

Course No	Course Title	Course Type	L+T+P	Total Credits
Semester-I	·			•
MHA-501	Concept of health and disease	Foundation course	L+T+P	2
MHA-502	Healthcare services	Foundation course	2+0+0	2
MHA-503	Hospital based healthcare & its	Foundation course	2+0+0	2
	changing scenario			
MHA-504	Hospitality and health	Core course	2+0+0	2
	education			
MHA-505	Communication skills	Other essential course	2+0+0	2
MHA-536	Medical equipment's &	Core course	2+0+0	2
	Biomedical engineering			
MHA-537	Patient care services	Core course	2+0+0	2
	Total (Credits semester I	14+0+2	16
Semester-II				
MHA-506	Basic Information Technology	Core course	2+0+0	2
MHA-507	Principles of Management	Core course	2+0+0	2
MHA-508	Organizational Behavior	Core, course	2+0+0	2
MHA-509	Principles of Marketing	Interdiscislinary	2+0+0	2
	Management	course		
MHA-510	Business Statistics	Interdisciolinary	2+0+0	2
		course		
MHA-511	Hospital Management Practice-	Care course	0+0+2	2
	I			
MHA-540	Nursing Administration	Core course	2+0+0	2
MHA-541	Hospital Planning	Core course	2+0+0	2
		Credits semester I	14+0+2	16
Semester-III				
MHA-512	Hospital support services	Core course	2+0+0	2
MHA-513	Material Management	Interdisciplinary	2+0+0	2
		course		
MHA-514	Human Resource Management	Interdisciplinary	2+0+0	2
		course		
MHA-515	Biomedical Waste	Core course	2+0+0	2
	Management			
MHÀ-516	Industrial relations	Interdisciplinary	2+0+0	2
		course		
MHA-534	System Management &	Core course	2+0+0	2
	Medical transcriptio			
MHA-535	OT & Ward Management	Core course	2+0+0	2
	Total Cr	edits semester IV	16+0+0	16
Semester-IV				
MHA-517	Principles of Financial	Core course	2+0+0	2
	Management			
MHA-518	Managerial Economics	Interdisciplinary	2+0+0	2
		course		
MHA-519	Information Technology for	Interdisciplinary	2+0+0	2
	Health Management system	course		
MHA-520	Marketing Management	Core course	2+0+0	2
	strategies and applications			

MHA-521	Epidemiology and Biostatistics	Interdisciplinary course	2+0+0	2
MHA-522	Hospital Management Practice-	Core Course	2+0+0	2
	II		2+0+0	<i>L</i>
MHA=538	Management of Super specialty services	Core Course	2+0+0	2
MHA-539	Quality Management	Core Course	2+0+0	2
	Total Credits semeste	r V	14+0+2	16
Semester-V				
MHA-523	Health economics	Interdisciplinary course	2+0+0	2
MHA-524	Management accounting	Core course	2+0+0	2
MHA-525	Principles of Hospital	Interdisciplinary	2+0+0	2
	Management	course		
MHA-526	Medico-Legal Management	Core course	2+0+0	2
MHA-527	Essential of Strategic Managemen	nt Core course	2+0+0	2
Total Credits			10+0+2	10
Semester-VI				
MHA-528	Operational Research in heath sciences	Foundation course	2+0+0	2
MHA-529	Health insurance	Interdisciplinary course	2+0+0	2
MHA-530	Nutrition and Dietetics	Interdisciplinary course	2+0+0	2
MHA-531	Management of drug stores and Pharmacy	Core course	2+0+0	2
MHA-532	Maternal Health Programme	Core course	2+0+0	2
MHA-533	Hospital Management Practice-II	Core course	0+0+1	1
MHA-599	Seminar in hospital management & administration	Core course	0+1+0	1
MHA-699	Hospital Management Project	Elective Course	0+0+6	6
Elective course			-	
MHA-542	International Business**	Elective Course	2+0+0	2
MHA-543	Ethics in Health Care Business**	Elective Course	2+0+0	2
MHA-544	Disaster Management**	Elective Course	2+2+0	2
MHA-545	Hospital Management practice IV	Elective Course	0+0+2	2
Total Credits I		•	6+0+2	8
	ory courses (To be registered as an	when offered)		
EVS-501	Environment Studies	Skill enhancing course	2+0+0	2 (NC)
HVE-501	Human Values& Ethics	Essential requirement	2+0+0	2 (NC)
		Grand Total Credits	80+01+15	96

Semester-I

MHA.501: The Concept of Health and disease

Credit: 2

Unit No.	Content	Lectures
1.	Concept of health and disease and well being. Natural history of disease and role of hospitals to offer various levels of care, prevention of disease, Dynamics of disease transmission, Changing pattern of disease, Concept of health indicators	8
2.	Preliminary Human anatomy and Physiology Basic concepts of human anatomy Basic concepts of human physiology	8
3.	Common Pathological Conditions Basic concepts of pathogenesis of common disease Basic concepts of interpretations of investigations reports	8
4.	Basic concepts of Pharmacology. Commonly used Medicine in a hospital, Narcotic, drugs, use and abuse of drugs, Dispensing of medicine, drugs store and drug stock / purchase of medicine, oxygen, / I/V Fluid, Chemicals etc.	8
	Total	32

Suggested Books:

Sr. No.	Author/Name of Book/Publisher
1.	Textbook of Preventive& Social Medicine Dr. K. Park
2.	Human Anatomy –Prof.Samar Mitra Human Anatomy-Prof. A.K. Dutta
3.	Text Book of Human Physiology -Dr. C. C Chatterjee
4.	Robbin's Textbook of Pathology –Robbin Cotran , Kumar
5.	Textbook of Microbiology-Ananatanarayan & Paniker
	Textbook of Pharmacology :Dr. K.D. Tripathi

Credits: 2

MHA-502: Healthcare services

Unit No.	Content	Lectures
1.	Demography & Vital Statistics	8
	Demography-its concept Vital events of life & its impact on demography	

	Significance and recording of vital statistics, Census & its impact on health policy, Health scenario of India- past, present and future	
2.	National Health Policy& Inter sectoral Co-ordination, National Population Policy	4
3.	ICD International classification of Disease (ICD-11)	4
4.	National Health Programme-Background objectives, action plan, targets, operations	2
5.	Achievements and constraints in various National Heath Programme	6
6.	Healthcare of the Community, Healthcare delivery system in India at Primary, Secondary and Tertiary care, Indigenous system of medicine in India	4
7.	Community participation in healthcare delivery system Health system in developed countries.	4
	Total	32

Sr. No.	Authors/ Name of Books/Publisher
1.	Textbook of Preventive & Social Medicine- Dr. K. Park
2.	Textbook of community medicine: V. K. Mahajan
3.	Population studies – Asha Bhendre

MHA-503: Hospital based healthcare &it's changing scenario Credits: 2

Unit	Content	Lectures
No.		
1.	Overview of Hospital, Concept of Modern Hospital & Privatization in Health Sector Public Sector Hospitals and Level of care/offered facilities	10
2.	Effects of Globalization in Health care	4
3.	Concept of CorporateHospital in developing countries Infrastructure and lay out of an ideal corporate hospital	5

5.	Invasive and non-invasive diagnostic facilities in modern hospital Care	7
	offered in Specialty and SuperspecialtyHospitals Total	32

Sr. No.	Authors/ Name of Books/Publisher
1.	Hospital Management module II- NIHFW, New Delhi Hospital Administration–G.D. Kunders
2.	Hospital Administration - Tabish

MHA-504: Hospitality and Health Education Credits: 2

Unit No.	Content	Lectures
1.	Aims & Principles of Health education Methods of Health Education	5
2.	Effects of health education, Levels & practice of health education	4
3.	Need of Health education to attain positive health, Health care reporting and role of NIC	5
4.	Treat your patients and treat also like your guest, Changing mind set of patients necessitate, Hospitality Management Aims and objectives of Hospitality	7
5.	Management (Commercial point), Methods of Hospitality, Management in a Hospital set-up	5
6.	Attractive look, Effective conversation, Multi lingual, Smart dress, Role of Hospitality Management in a Hospital set-up, Etiquette and manners	6
	Total	32

Suggested Books:

Sr. No.	Authors/ Name of Books/Publisher
1.	Health Education–V.K. Mahajan
2.	Effective communication methods—Asha Kaul Hospital Administration-Tabish

3.	Hospital Administration - S. L. Goel

MHA-505: Communication Skills Credits: 2

Unit No.	Content	Lectures
1.	IEC activities in health sector	12
	Basic concepts & principles of good communication	
	Special characteristics of health communication	
2.	Types & process of communication	10
	Barriers of communication & how to overcome Communication with the media/press	
3.	Counseling in health care & its different methods Management and co- ordination of IEC activities	10
	Total	32

Suggested Books:

Sr. No.	Authors/ Name of Books/Publisher
1.	Effective Business Communication Health Education–V.K. Mahajan
2.	Effective communication methods—Asha Kaul Hospital Administration-Tabish

MHA-536: Medical Equipments &Biomedical Engineering Credits: 2

Unit No.	Content	Lectures
1.	List of common Medical Equipments used in Hospital	5
2.	Justification of purchase proposal, Hospital Need Assessment	4
3.	Equipment selection guideline, Estimation of cost and Q.C. Planning Purchase/Installation/Commissioning of Medical Equipments Replacement of old equipments and Buyback Policy	10

4.	Estimation of Breakeven point and Profit-Projection in hospital budget Medical Equipment Maintenance (In-house and AMC)	8
5.	Local, National and International availability of Medical Equipments	5
		32

Sr. No.	Authors/ Name of Books/Publisher
1.	Materials Management-Gopalakrishnan
2.	NIHFW Monograph-Govt. of India

MHA-

537:Patient Care Services Credits: 2

Unit No.	Content	Lectures
1.	Patient Admission/Discharge, All patients related services and assistance.	6
	Good communication, Nursing care with full devotion/commitment	
2.	Diagnostics Services, Blood transfusion services Housekeeping services	5
3.	Cafeteria and Dietary services, Proper and respectful disposal of deceased person.	6
4.	Health Insurance in Private Health Sector, Health Insurance in developing and developed countries, Different Health Insurance Policies—Analysis and Management, Concept of combined Life Insurance and Health Insurance	8
5.	GOI & State Govt. Policy in implementation of Health insurance, Hospitals/TPA/ Insurance Company/Relationship and Problems.	7
	Total	32

Suggested Books:

Sr. No.	Authors/ Name of Books/Publisher
1.	Hospital Administration-Tabish
2.	Hospital Administration-Goel
3.	Hospital Administration McGibony
4.	Insurance Management-Dave

5. National Insurance-Monographs on Insurance Management IRDA Guidelines on Health Insurance - Govt. of India

Hospital Management Practice-I Credits: 02

Sr. No.	Content	
1.	EDP/IT Department:	
	Participation in the process of Lay out of EDP/IT Department (Server Room, EDP Lab., Manager's Office, Hardware Engineer, Software Engineer/Programmer, Data Entry Operator),	
	Sections for data entry, Data collection, Data analysis, Dissemination of information, Storing and preservation of information/record, Optimum utilization of LAN/WAN/MAN system, Modules used in EDP through ERP system like; (Registration, OPD, Admission, Discharge, Billing, Emergency, Laboratory, Nursing Station, Operation Theatre, Stores, Pharmacy, Pay-roll, Modules of Oracle and Envision system, Management Information System), Maintenance of Computer including its accessories, Updating of modules on need based, Application of antivirus system	
2.	Reception:	
	Participation in the process of Receiving patients and providing information, Providing information of availability of doctors, Fixing appointment with doctors, Arrangement of direct admission for urgent cases, Public Address System, Supervising internal transportation system, No. of Receptionist required to handle the Desk	
3.	Registration: Infrastructure – Lay out, Physical facilities, Patient registration, Assisting in collection of hospital charges, Transmitting information to respective doctor, Assisting in sending patient to the respective departments, Computer based functional activity by Receptionist	
4.	Admission: Documentation of registration for Admission of patients, Preparation of files with relevant papers, Observing the process of receiving advance payment during admission either by cash or credit card, Formalities of procedures for ensuring availability of payee's fund, Distribution of visiting card, literatures, brochure etc. to the client, Transfer of Patient to ward, Ambulance management and billing, Deployment of no. of Receptionist-cum-Office Assistant, Foreign Exchange facilities	
5.	Billing & Discharge: Involvement in the process of Assimilation of information through LAN from the different departments, Checking of data in the computer, Observation of different billing system like; (Cash Billing – As per hospital's	

prevailing rate schedule; TPA Billing – As per hospital's prevailing rate schedule; Copt. Billing – Tailor-made billing as per agreement), Handing over the bill to the patient party, Providing Birth Certificate, Amputed Certificate, Death Certificate, Referral Letter, as and when required, Providing discharge certificate in original along with all relevant documents for cash payee patient and photo copy of discharge certificate to the corporate and TPA patients, Deployment of no. of Receptionist-cum-Office Assistant, Facilities – Computer, Swapping Machine, Note Counting Machine, Communication facility

- OPD Services: Layout of Reception Desk in OPD, Registration and department wise OPD Card segregation, Location of the concerned Department, Reception of patients, Physical facilities in OPDs, Close supervision of Doctor's Chamber for the followings (Availability of Prescription Pad, Stethoscope, View Box, Bed Trolley, Weigh Machine, Torch Light, Gloves, Liquid soap and towel), Records maintenance of OPD, Supervision of patient waiting area and its seating arrangement, Adequate communication with other departments/units/wards etc., Public Addressing System, Deployment of Staff like Jr. Doctor, Para Medical Staff, Receptionist, Assistant etc.
- 7. **Public Relations Office**: **General-** Helping patients regarding the followings:

Information – Over phone / e-mail / letter / fax / across the table, Dispatch reports for outstation patients, Providing different types of brochure, Liaison between doctor and patient, Appointment for doctors, Estimation of treatment expenditure, Billing status of IPD patient, Visiting indoor patients to enquire about their facilities, Availability of Public Relations Officer everyday including Sundays and holidays

Corporate-Coordination of admission of company patients and patient having medical insurance for cashless treatment, Ensuring validity of ID card and referral letter, Filling up the pre-authorization letter and facsimile the patient case history, investigation report, clinical notes etc. to the concerned TPA for verification and approval, Provide different additional queries regarding the health status and treatment procedure of the patients to concerned TPA, Informing the admission counter about the status of the patient awaiting admission, Close liaison with concerned department or doctor of Corporate Houses, Coordination with Billing and other Depts. for collection of paper documentation

- 8. **Pharmacy Services:** Involvement in Space requirement as per act, Lay out, Storage facility different set up for different type of drugs, Equipments, Organizational structure (role and function)-In-charge, Pharmacist and Chemist, Sales Technician, Cash Counter, Computer Operator/Office Assistant, Attendant, Purchase of drugs disposables, consumables etc., Purchase of food items, Quality control, Proper storage of drugs, Sales policy, Record maintenance, Preparation of Accounts, Pharmacy Audit
- 9. **Stores:** Observation and participation in different stores like Medical Stores, Linen Stores, Housekeeping Store, Maintenance Store, Printing & Stationary Store etc, Space

requirement, Lay out (as per category of store), Storage facility, proper set up for particular type of medical and non-medical items, Issuance policy, Safety measure, Practical application of EOQ, Minimum stock level, Deployment of staff like; (In-charge, Store keeper, Record maintenance clerk, Attendant/Delivery person, Security etc.) Proper storage procedures, Indents, Issue of item as per indent, Record keeping of issued materials as well as balance stock, Delivery system, Physical verification of stored items periodically

10. House Keeping: Observation of All departments, wards and adjacent areas within the hospital premises, Cleaning process – Moping, Sweeping, Washing, Shampooing (Carpet), Brooming, Process of selection of detergents and disinfectants, Disposal of waste materials, Sources of waste in different areas of hospital, Categories of waste identification in the hospital, Waste segregation according to Biomedical Waste Management & Handling Rules, Application of colour code, including poly pack, bin etc., Waste transportation process, Internal waste storage system, Disposal process of biomedical waste (solid & liquid), Management of infected healthcare worker, Use of Personnel Protective Equipment (PPE), Supervision / leadership style, Staff training for precaution taken, Pest control system, Record maintenance, Waste Tracking, Equipment for wet and dry scrubbing machine, Usage of vacuum cleaner, Garbage Trolley, Roll of –(Operation Manager, Housekeeping Manager, Supervisor (round the clock) in different shift, Sweeper, Ward boy).

Semester II

Unit No.	Content	Lectures
1.	Basic concepts about computer Hardware & Software, Working Knowledge of commonly used hospital software, Data based Application of Computer in hospitals	10
2.	Computer Programme and operating system Introduction to ERP system, MIS, HMIS	8
3.	Microsoft Office, SQL, V.B, ERP system with all modules	6
4.	Importance of effective Health information system, Digital maintenance of Medical Records	8
	Total	32

Sr. No.	Authors/ Name of Books/Publisher
1.	An introduction to computers Peter Norton - Tata McGraw Hill
2.	Computers today S. K. Basandra – Galgolia Books
3.	Introduction to Computers – C. Xavier – New Age publishers

MHA-507: Principles of Management

Unit No.	Content	Lectures
1.	History and growth of management sciences, Traditional management vs. modern health care management , Evolution of management theory	10
2.	Healthcare management as profession , Evolution of management concepts	8
3.	Management components i.e. Planning organizing, Staffing, Motivating, leading Co-ordination and controlling.	8
4.	Modern Management concept and its and its implication in health sector.	6

Total	32

Sr. No.	Authors/ Name of Books/Publisher
1.	Principles of Management-L.M. Prasad-S. Chand
2.	Essential Management - Koontz-Tata McGraw Hill
3.	Management-Peter Drucker

Credits: 2

MHA-508: Organizational Behavior (O.B.)

Unit No.	Content	Lectures
1.	Concept Organizational Behavior, Major components of Organizational Behavior-Personality development, motivation, Group, Leadership, Cooperation and Conflict.	10
2.	Behavior of People of their work place and its Relation in team building for achieving organizational goals sociology and Anthropology.	6
3.	Basic of Psychology	3
4.	Characteristics of work groups, Dynamics of organizational behavior Motivation and Leadership.	7
5.	Conflict management, Transactional analysis	
	Total	32

Suggested Books:

Sr. No.	Authors/ Name of Books/Publisher
1.	Organization Behavior – S.P. Robbins Prentice Hall
2.	Organizational Behavior – Fred Luthans – McGraw Hill
3.	Organizational Behavior – M. L. Prasad – S. Chand

MHA-509:Principles of Marketing Management Credits: 2

Unit No.	Content	Lectures
1.	To understand the role of marketing in health care industry, its importance in quality management and organizational development	6
2.	Basic concept of Marketing Management- Consumer Behavior	4
3.	Marketing research and information.	5
4.	Pricing of various services, Marketing strategy, evolution and control promotion of Business in Hospital	10
5.	Service Marketing-Patient care and communication	7
	Total	32

Suggested Books:

Sr. No.	Authors/ Name of Books/Publisher
1.	Marketing Management-Kotler
2.	Services Marketing Management-Kotler & Keller

MHA-510: Business Statistics Credits: 2

Unit No.	Content	Lectures
1.	Basic concepts- Introduction, Definitions	4
2.	The Role of Statistics in the Estimation of burden of disease and the methods applicable to calculate the same, basic mathematics	6
3.	Collection, Presentation data	2
4.	Probability and Frequency of distribution	3
5.	Estimation and testing of hypothesis	3
6	Index Number, time series	3
7	Measurements of central tendency	5
	Measurements of dispersion	

8	Sampling and Sampling error Testing of hypothesis Test of significance Correlation Regression	6
	Total	32

Sr. No.	Authors/ Name of Books/Publisher
1.	Statistics for management–R.I. Levin and D. Rubin–Prentice Hall Basic
2.	Statistics – Goon, Gupta and Dasgupta–World Press
3.	Business Statistics–S. P. Gupta - S. Chand

Credits: 2

MHA-540: Nursing Administration

Unit No.	Content	Lectures
1.	Introduction to Noble Nursing Profession, Nursing organization structure	8
2.	Nurses–Doctors and Nurses–Patients' relationship Nurses: A dedicated social and professional entity	10
3.	Staffing norms in various types of hospitals and departments	5
4.	Recent trends in nursing profession and education	4
5.	Specialization in nursing practices	5
	Total	32

Suggested Books:

Sr. No.	Authors/ Name of Books/Publisher
1.	Ward Administration and Management - N.R. Brothers
2.	Hospital Administration and Planning - Paras, Hyderabad
3.	Nursing Administration - Jhora Medical Pub, Mumbai

MHA-541: Hospital Planning

Unit No.	Content	Lectures
1.	Changing health care concept in planning/designing.	3

2.	Site surveys for planning a hospital (Techno-Commercial)	4
3.	Hospital building, architectural patterns, landscaping	4
4.	Internal arrangements, sanitation, lighting, ventilation and traffic control Planning of 30,100,250 bedded hospital(general/specialty)	8
5.	Planning of 500, 750 and above bedded hospital(teaching/superspecialty/non-teaching specialty hospitals)	7
6.	Project cost and total budget: Feasibility and viability study of Hospital	3
7.	Project conceptualization, functional requirements. Implementation.	3
	Total	32

Sr. No.	Authors/ Name of Books/Publisher
1.	Principles of Hospital Administration-Tabish
2.	Principles of Hospital Administration–M.C. Gibony
3.	NIHFW Monographs–Govt. of India, New Delhi

Semester -III

DHA.512:Hospital Support Services Credits: 3

Unit No.	Content	Lectures
1.	To consider various aspects of planning, operating and evaluation of different utility services in hospitals	7
2.	Methods of Sterilization CSSD, Nosocomial infection and hospital acquired infection control committee, Laundry services	7
3.	Security Services (General & Others like fire, gas etc.), Transportation Services (External & Internal)	7
4.	Ambulatory Care, Hospital Stores	6

5.	Mortuary (Preservation, transportation & religious formalities),	6
	Kitchen services	
6.	House Keeping, Maintenance	7
	Total	40

Sr. No.	Authors/ Name of Books/Publisher
1.	Principles of Hospital Administration-S.A. Tabish
2.	Hospital Administration-S.L. Goel
3.	Hospital Administration-Francis
4.	Hospital Administration-McGibony

Credits: 2

DHA.513: Material Management

Unit	Content	Lectures
No.		
1.	To help, learn the scientific methods, materials and materials and equipment planning, procuring , storing and dispensing scope, definition including maintenance	5
2.	Importance of material management, Principles of material forecasting inventory management and analysis	8
3.	Import formalities relating to Medical equipments letter of credit, service contracts	7
4.	Purchase style, need assessment	8
5.	Tender system	4
6.	Condemnation and disposal	
7	Economics order quantity, safety stock, lead time	
	Total	32

Suggested Books:

Sr. No.	Authors/ Name of Books/Publisher
1.	Principles of Hospital Management - S.A. Tabish
2.	Hospital Management - S. L. Goel
3.	Hospital Administration - Francis
4.	Bio-Medical Waste Act & Rules Govt. of India
5.	Current Issues In BMW Waste Handling-ISHA, Bangalore

MHA-514: Human Resource Management

Unit No.	Content	Lectures
1.	Concepts & Evolution of personnel Management in Hospital Public Relation, Methodology & tools of Personnel Management, Office rules & regulation & discipline, Performance appraisal	8
2.	Rules & Regulation as applicable to Hospital employees	4
3.	Hospital need assessment: Creation of new post & abolition of existing post Job description and full utilization of manpower,Cost effectiveness, leave policy for employees	8
4.	Selection & Recruitment procedure, Wage & Salary. Qualification, Experience, Pay fixation, E.B., Performance Indicator Tools	6
5.	Manpower Audit in Hospital Care Industry, Training Need Assessment & in-service training Code of Conduct and disciplinary proceeding	6
	Total	32

Suggested Books:

Sr. No.	Authors/ Name of Books/Publisher
1.	Human Resources Management - L. M. Prasad
2.	Personnel Management - P. C. Tripathy
3.	Personnel Management-Mamoria

4.	CDA Rules - Navi Publications
5.	Law of Employment and Services in India - Kamal Law Book House
6.	Fundamental Rules-Navi Publications
7.	Supplementary Rules- Navi publications

MHA-515: Biomedical Waste Management Credits: 2

Unit No.	Content	Lectures
1.	Definition of Biomedical Waste, signification of nosocomial infections	5
2.	BMW – Segregation, collection, transportation, disposal, liquid BMW, Radioactive waste, Metals/Chemicals/Drug waste	8
3.	BMW Management and methods of disinfection, Modern technology for handling BMW	7
4.	Monitoring & controlling of cross infection (Protective device)	8
5.	BMW from Administrative point (Budget, Health Check-up, Insurance)	4
	Total	32

Suggested Books:

Sr. No.	Authors/ Name of Books/Publisher
1.	Principles of Hospital Management - S.A. Tabish
2.	Hospital Management - S. L. Goel
3.	Hospital Administration - Francis
4.	Bio-Medical Waste Act & Rules Govt. of India
5.	Current Issues In BMW Waste Handling-ISHA, Bangalore

MHA-516:-Industrial Relations Credits: 2

Unit No.	Content	Lectures
1.	Industrial relations and its influence on the staff behavior, policy covering wage and salary administration	6
2.	Wage fixation and collective bargaining	3
3.	Definition , scope and importance of industrial relations	10
4.	Golden rules of financial management	2
5.	Cost control and cost Reduction	3
6.	Financial Statement and its analysis	4
7.	BEA Recourses Mobilization profitability analysis	6
8.	Receivable Management	7
9.	Working Capital	6
	Total	45

Sr. No.	Authors/ Name of Books/Publisher
1.	Financial Management – T.K. Maheshwari
2.	Business Finance –Dey & Dutta
3.	Principles of Accounting – Sandeep Sharma
4.	Financial Management - Prakashan

MHA-517:System Management & Medical Transcription Credits: 2

Unit No.	Content	Lectures
1.	Management as system. Open and close system Implication &Limitation of system approach Tools of Transcription	10
2.	Transcription Skill	6
3.	Ethical & Legal Responsibilities, Confidentiality Preparation of Miscellaneous Medical Reports	9

4.	General Principles for complete documentation in Medical Records	7
	Tota	I 32

Sr. No.	Authors/ Name of Books/Publisher
1.	Medical Records-Geeta Sahay
2.	Principles of Management - L.M. Prasad
3.	Laws related to Medical Profession - Kamal Book House
4.	Ethical issue related to Medical Profession - NIHFW, Monograph, Govt. of India

MHA-518: OT & Ward Management Credits: 2

Unit No.	Content	Lectures
1.	Different types of ward , Position of Nursing Station Ward facilities, duties and responsibilities of ward staff Manpower Need	12
2.	Assessment in Hospital Ward	6
3.	General concept on OT design and function of OT Advantages and importance of zoning of OT	7
4.	Advantages of Centralized OT complex	7
		32

Suggested Books:

Sr. No.	Authors/ Name of Books/Publisher
1.	Hospital Management-Tabish
2.	Hospital Management-Goel
3.	Hospital Management McGibony

Semester IV

MHA-517:-Principles of Financial Management Credits: 3

Unit No.	Content	Lectures
1.	Cash flow and fund flow	8
2.	Basics of financial management , Elements of Cost Issue and scope of financial management	9
3.	Recording Business transactions	3
4.	Financial Statement and its analysis, fund allocation and department performance reports	7
5.	Concept of business plan, project plan	5
	Total	32

Suggested Books:

Sr. No.	Authors/ Name of Books/Publisher
1.	Financial Management – T.K. Maheshwari
2.	Business Finance –Dey & Dutta
3.	Principles of Accounting – Sandeep Sharma
4.	Financial Management - Prakashan

MHA-518: Managerial Economics

Unit No.	Content	Lectures
1.	To understand financial management's utility as an indispensable part of	5
	administration and quality control	

2.	Elements of cost and costing methods, Hospital Rate setting- Managerial	10
	cost and Break-even analysis cost control and cost reduction	
3.	Budgeting –Revenue and capital Budgeting , cash Budgeting Productivity	5
4.	Resource mobilization, Cost containment	7
5.	Money market and Capital Market, Merger and acquisition	5
	Total	32

Sr. No.	Authors/ Name of Books/Publisher
1.	Basic Financial Management -Khan
2.	Economics - Lipsey

MHA-519: Information Technologyfor Health Management SystemCredits: 2

Unit No.	Content	Lectures
1.	To study the need of management and information together forming a system integration of different aspects of MIS and preparation of information system manual	12
2.	Why to have HMIS in Hospital set up Health information System	5
3.	Health Information system, Importance of Health Information System	10
4.	MIS as a tool to managerial control	5
	Total	32

Suggested Books:

Sr. No.	Authors/ Name of Books/Publisher
1.	Management Information System- Srivastava
2.	HIMS-NIHFW Monograph, Govt. of India

MHA-520 :Marketing Management Strategies and application Credits: 2

Unit No.	Content	Lectures
1.	Advertising, and Branding, Marketing promotional activities, Cooperate Marketing	10
2.	Marketing for TPA and Cash Patients	6
3.	Marketing and medical ethics.	8
4.	Social aspects of marketing	8
	Total	32

Sr. No.	Authors/ Name of Books/Publisher
1.	Services Marketing Management-Kotler & Keller
2.	Advertising Management-S. Krishnan
3.	Marketing Management-Kotler
4.	Advertising Management- Geeta Pandey

Credits: 2

MHA-521: Epidemiology and Biostatics

Unit No.	Content	Lectures
1.	Principles of Epidemiology Natural History of disease, Methods of Epidemiological studies	5
2.	Epidemiology of communicable disease and non communicable disease transmission	4
3.	Host defense immunizing agents, cold chain, immunization, Disease monitoring & surveillanceScreening and surveys	6
4.	Investigation of an epidemic and role of hospital in its control	6
5.	Sampling :- sampling techniques or methods, choice of sampling techniques, sample size, sampling and non sampling errors Sampling variability and significance and Z test, one tailed and two tailed tests.	11
	Methods of data collection: Meaning and importance of data, sources of	

observation method, experimentation, simulation, interviewing, panel method, mail survey, projective technique, socio –metric. Tools of data collection. Type of data construction of schedules and questionnaires, measurement of scales and indices, pilot studies and pretests	
Total	32

Sr. No.	Authors/ Name of Books/Publisher
1.	Textbook of Preventive & Social Medicine- Dr. K. Park Textbook of community medicine: V.K. Mahajan

Hospital Management Practice-II Credits: 02

Sr. No.	Content
1.	Laboratory Services: Observation of Location, Structural facility, Administrative Area, Laboratory equipment, Lighting in laboratory, Laboratory furniture, Special mechanical and electrical equipments, Various functional units-(Clinical pathology, Hematology, Bio Chemistry, Histology, Bacteriology and Serology, Auxiliary service area), Collection of samples and delivery of reports, Requirements for various quality accreditation systems, Organization-(Sr. ¡Microbiologist, Microbiologist, Lab. In-charge, Technician, Research Fellow, Computer Operator, Attendant)
2.	Imaging Services: Observation of Layout of X-ray rooms, Various types of imaging machines and its usages, Maintenance of imaging machines, Protective gears, Precaution taken for Hazardous radio activity, Licenses required, General and special investigations, Layout of Reception area, Dress changing area of patient, Film processing room, Analysis of developed film and preparation of report, Storing of developed film, Delivery of film to Patient/ward, Roll of Radiologist, Technicians, and Office Assistant of Radiology Dept. Personnel /

3. H. R.Department: Observation of Present employee status, Selection and recruitment procedure, Employee appraisal system, Employee training and development system, Retirement and retirement benefit system, H. R. Audit, Wage Administration 4. Laundry & Linen Services: Observation of Location, Work flow, Physical facilities of Laundry-(Receiving, Storing, Sorting, washing area, Central Disinfection Area, Cleaned Linen processing room, Laundry Manager's Office, Staff Room, Sewing and inspection area, Supply storage room, Solution Preparation area, Cleaned Linen issue area, Natural ventilation and light, Free Linen movement area), Other facilities Adequate Water supply, Drainage system, Adjacent power supply, Steam, Compressed air, Arrangement of equipments, Soiled linen receiving from ward, OT, other areas, Process of sorting and cleaning, washing, drying, ironing, Collection and storing process of cleaned linen, Sorting of discarded linen and sending them to the Store, Process of linen distribution, Maintenance of hygiene, Infection control process, Process of staff training, Process of co-ordination among the related departments, Manpower for Laundry-Laundry Manager, Supervisor, Supporting staff 5. Kitchen & Dietary Services: Overview of kitchen lay out and its adjacent areas, Physical facilities-(Receiving area, Washing area, Preparation area, Cooking area, Storing area, Food Distribution area, Garbage disposal area, Office of Kitchen Manager, Office Kitchen Staff), Work Flow, Patient visit and observation of the diet chart preparation, Observation and process of- (Coordination with Dietitian before preparing process of food for patient, Receiving and storage of perishable and non-perishable food, Process of calculation the quantity of perishable & non-perishable items to be cooked, Washing, cutting, preparation and cooking process, Storage of cooked food and precaution to be taken, Delivery process of hot food (Hot Trolley) to patient according to diet chart, Process of distribution of food in the cafeteria and dining hall, Maintenance of hygiene by kitchen staff, Safety measure, Receiving of soiled utensils and left over food, Collection of utensils and washing process, Garbage disposal system, Maintenance of Accounts, Pest control system, Process of supervision and leadership style, Educational programme, research, dietary counseling etc., Periodical audit), Organization- Qualified Kitchen Manager, Dietitian, Head Cook, Cook, Stuart, Masalchi, Helping Staff 6. Marketing: Observation / involvement in Office Lay out, Different types of advertisement for projection, Fixture required for marketing (Banner, Leaflet, Hoarding, CD/VCD/DVD), Media Management (Print, Electronic), Event Management (Camp, Seminar, CME), Institutional/ Corporate marketing, Direct marketing, Channel/Franchise marketing, Data analysis, Patient feed back, Organization-(Head of Marketing, Departmental Manager, Regional and Territory Manager, Marketing Executive, Office Assistant). 7. Computerization of Medical Record: Observation/involvement in all elements of physical records maintenance plus Alphanumerical data, Machine generated data, Image dati

	Interpretation of data, Derived data, Storage process of electronic data, Data classification, ICD - 10 System and its use in electronic records maintenance system.
8.	Security Services : Observation of Security room and posts, Security services in the hospital, Role of Security during patient visiting hours, Traffic control inside the hospital, Maintenance of fire precautions, Process of medico legal activities
9.	Transportation Services: _Observation of_internal and external transport, Different ambulances-(Ambulances enmarked for communicable disease, Facilities given in the emergency ambulance, Maintenance of ambulance), Maintenance of internal transportation
10.	Wards: Observation of Ward Composition-Beds Patient Ratio, Lay out, Types of ward, Physical facilities-(Nursing Station, Doctor's room, Dirty utility room, Dress Changing room, Sanitary facilities, Dressing room for minor treatment, Isolation room, Ward Pantry, Dayroom, Barrier Nursing, Other facilities-(Ward side Laboratory, Linen store, Drug Store etc) Other Equipment facilities-(Electronic Monitoring Devices, Ventilation Devices - Natural & Mechanical, Ward Lighting, Calling Bell, Fire Alarm System), Organization, Resident Medical Officer, Nursing Superintendent, Floor Co-coordinator, Nursing In-charge, Nursing Personnel, Nursing Trainee, Ward Boy, Communication facilities, Methods of patients' record keeping in wards/technical/medical details, Admission and Discharge procedures, Billing system/generation of bills based on bed head ticket entry, Cleanliness, Duty arrangement of various medical and para medical staff.

Semester -V

MHA.523: Health EconomicsCredit: 2

Unit No.	Content	Lectures
1.	Basics of health economics	5
2.	Nature & Scope of Managerial Economics Micro- and macro- economics	6

3.	Demand/Supply of Medical Care	5
4.	Concept of Cost analysis, price elasticity Theory of Production	6
5.	Theory of pricing	5
6.	Price & output decision under different market condition	5
	Total	32

Sr. No.	Author/Name of Book/Publisher
1.	Economics - Samuelson Economics - Lipsey
2.	Managerial Economics - S. Mukherjee

Credits: 2

MHA-524: Management Accounting

Unit No.	Content	Lectures
1.	Managerial Accounting - an overview	8
2.	Nature, Scope & Purpose of managerial accounting	4
3.	Some tools & techniques of managerial accounting	4
4.	Profitability analysis	2
5.	Receivable Management Working Capital	6
	Total	32

Suggested Books:

Sr. No.	Authors/ Name of Books/Publisher
1.	Managerial Accounting - an overview
2.	Nature, Scope & Purpose of managerial accounting

MHA-525: Principles of Hospital Management

Unit	Content	Lectures
No.		
1.	Concept of Health Care Industry & its ever-changing character	8
2.	Understanding functioning of Corporate multi-specialty hospital	7
3.	Managerial activities for effective hospital functioning	4
4.	Duties and responsibilities of Hospital Managers, Qualities ofeffective Managers	8
5.	Effective inter and intra departmental co-ordination	5
	Total	32

Sr. No.	Authors/ Name of Books/Publisher
1.	Hospital Administration – Tabish
2.	Hospital Administration-S.L. Goel
	Hospital Administration Sakaharkar

Credits: 2

MHA-526: Medico- legal Management

Unit No.	Content	Lectures
1.	Rules and regulations of international health policy.	4
2.	Medico-Legal Problems in relation to health administration Law ofContracts, Specific Performance	6
3.	Law applicable to Hospital employees	3
4.	Medical jurisprudence and functioning of hospitals	4
5.	Consumer Protection Act and Hospitals, I.D. Act, W.C. Act	4
6.	West Bengal Clinical Establishment Act and Rules ESI Act, Trade Union Act,organ transplantation Act PNDT-Act	6
7.	International health organization / NGOs Medical Ethics	5
	Total	32

Sr. No.	Authors/ Name of Books/Publisher
1.	Law of Consumer - Universal Publications
2.	Law and Medical Profession - Eastern Law Book Co
3.	Related Acts - Kamal Law Book House

MHA-527: Essential of Strategic Management Credits: 2

Unit No.	Content	Lectures
1.	Strategic Management Process	4
2.	Situational analysis in health sector	6
3.	Strategy formulation and strategy implementation	2
4.	Forecasting methods, stakeholder analysis	3
5.	Monitoring techniques, evaluation procedures and tools	3
	Total	32

Suggested Books:

Sr. No.	Authors/ Name of Books/Publisher
1.	Principles of Management - L. M. Prasad
2.	Essential Management in Global Perspective
	Koontz

Semester - VI

MHA-528: Operational Research in Health Sciences

Unit No.	Content	Lectures
1.	Quantitative methods and modern management techniques as applicable in health care settings as a tool to system development and better managerial control OR techniques and in applications in hospital Linear Programming Decision tree Analysis	8
2.	Queuing theory, PERT, PM, Assignment Model Management by objective	16
3.	Management by result	8
	Total	32

Sr. No.	Authors/ Name of Books/Publisher
1.	Operational Research-L.M.Prasad
2.	Operational Research-P.C. Tripathy
3.	Management by objectives- Drucker

MHA-529: Health Insurance Credits: 2

Unit No.	Content	Lectures
1.	Health Insurance in Private Health Sector	6
2.	Health Insurance in developing and developed countries	8
3.	Different Health Insurance Policies-Analysis and ManagementConcept of combined Life Insurance and Health Insurance	7
4.	GOI & State Govt. Policy in implementation of Health insurance	5
5.	Hospitals/PA/ Insurance Company/Relationship and Problems.	6
	Total	32

Suggested Books:

Sr. No.	Authors/ Name of Books/Publisher
1.	CDA Rules
2.	Law of Employment and Services in India
3.	Fundamental Rules
4.	Supplementary Rules

MHA-530: Nutrition & Dietetics

Unit No.	Content	Lectures
1.	Food & Nutrition. Role of Antioxidants	6
2.	Overview of Metabolism & Balance Diet for patients	
3.	Diet for Patient - Selection of food, Cooking methods, Tasty Food, Food to be avoid / Added in diet, Need of complementary food	6
4.	Steps to prevent food adulteration and Food Adulteration Act.	6
5.	Overview of Clinical Dietetics, Quality control of Food Hygiene anddiet/Catering service special precautions in Hospital Kitchen, Management of Hospital	8
6.	Role of dietitian in hospital diet service	6
	Total	32

Suggested Books:

Sr. No.	Authors/ Name of Books/Publisher
1.	Text Book of Social and Preventive Medicine-K Park
2.	Preventive and Social Medicine - Prabhakar

MHA-531:Management of drug stores and Pharmacy Credits: 2

Unit No.	Content	Lectures

1.	Drug Management; Present scenario	
2.	Hospital Pharmacy Licenses, Drug Licenses, Narcotics drugs	4
3.	Purchase of drugs and other consumable materials, Drug StoragePharmacy Billing, Computerized drug management system	5
4.	Rational use of drugs and Prescription, Audit Spurious drugs, Banned drugs	10
5.	Procedure of Drug Indenting, On time Drug dispensing, Inventory Control - ABC, VED, SDE, FSN Analysis	7
6.	Methods of ordering a)Two bin system (Lead Time, Buffer stock, Reorder Level) b) Cyclic System	
	Total	32

Sr. No.	Authors/ Name of Books/Publisher
1.	Materials Management -Gopalakrishnan
2.	Materials Management –A.C. Dutta

MHA-532: Maternal Health Programme

Unit No.	Content	Lectures
1.	Ratio analysis, Incidence and prevalence rates, Morbidity statistics, International classification of diseases	7
2.	Health reports and Notifiable diseases, Health information system in India	8
3.	Health Systems Research (HSR)-Introduction to WHO's concept of HR, Use of systems research for strengthening health systems	9
4.	Getting research into policy and practice (GRIPP)	4
5.	Developing research protocols/proposals	4

	32

Sr. No.	Authors/ Name of Books/Publisher
1.	Population Studies –Asha Bhendre
2.	Elementary Statistics –Goon, Gupta , Dasgupta
3.	Biostatistics-Mahajan
4.	Research Methorology in Social Sciences
5.	Tripathy Preventive & Social Medicine-Rabhaka Rao

Hospital Management Practice-III Credits: 02

Sr. No.	Content
1.	central Sterile Supply Department (CSSD): Observation of Location, Name and Function ofequipments, Items processed by central Sterile Supply Department, Sterilizationtechnique-(Heat, Gas, Liquid, Ionizing radiation, Others), Work How Clean zone, dirtyZone, Pooling of materials, equipments, Function of different equipments used torsterilization, Process of receiving and distribution of materials, Technique of Gauge folding, Cleaning, drying and packing of sterilized materials, Segregation of Dirty zone and cleanzone, Process of receiving and distribution of materials, Quality control checking ofsterilization in collaboration with Micro-biology Lab. Organization-(CSSD Supervisor, Technologist, Technical Assistant, Para medical staff, Attendant, CSSD Committee).
2.	<u>Library in Hospital</u> : Observation the functioning of Library work flow, Physical facilities, Procurement of books and journals as per Good Office Committee (GOC) norms, Receiving the purchased books / periodicals, audio visual journals etc., Preservation of books in the Shelves, Catalogue preparation, process of issue and collection of books, Updating of catalogue annually, Library rules and regulations, Preparation of Membership Card, Repair of damaged books, Ascertaining of lost books and journals, Arrangement of educational programme through Video Satellite system, Stock verification of Library items periodically
3.	Emergency: Observation of Location of Emergency in hospital, Basic lay out of Emergency- (Receiving patients, Patient examination zone, Patient investigation zone, Procedure room

Cardio Pulmonary Resuscitation Unit, Dead patient barrier, EMO's Office, Nursing Station) Intrastructural facilities-(Office of EMO, Nursing Office), Equipments, Legal procedure system, Emergency Operation Theatre-(Arrangement of instruments and oxygen for minor Operation, Sterilization and fumigation of O.T. Room), Admission procedure, Billing for day care procedure in Emergency Dept., Staffing -(Medical, Para Medical), Security

- 4. Critical Care Unit: Observation / involvement in Physical structure and facilities, Organizational structure, Bed orientation pattern, Lighting system, Monitoring system including connection to centralized monitoring system-(Invasive, Central Venus Pressure (CVP), Arterial Blood Pressure monitoring, Cardiac output monitoring, Pulmonary Arterial monitoring, Non-invasive, Heart bit rate, Blood Pressure, Respiratory rate, Intake & output monitoring Maintenance of sterility and general cleanliness-(Maintenance of sterility of the ward, Maintenance of sterility of clothing used in CU, General sterilizing procedures before examination of the patient Administration of CU, Qualified doctor having experience in CU (as per WHO ratio), Qualified nurse having experience in CCU (as per WHO ratio), Deployment of qualified paramedical staff as per WHO ratio) Workflow-In flow of patient, Type of patients commonly admitted in CU, Pattern of treatment patient receive in CU, Type of patient actually needs life saving support, Out flow of patient, Counseling with outside visitors / patient party Equipment maintained in CU, Monitor, Ventilator, Defibrillator, ECG and other equipments used in CU Equipment maintained in specialized CU, Intra Aortic Balloon Pump, Photo Therapy Machine Maintenance of uninterrupted gas and power supply system and their utilization-Continuous wall flow oxygen, Compressed air, Suction Apparatus (Vacuum Pump), Uninterrupted Power Supply (UPS) line
- Medical Records: Observation/involvement in Assembly of records, Quantitative and qualitative analysis, Different classification of records, Methods of deficiency check, Completion of incomplete records, Retrieval of medical records, Coding system, Indexing system, Generation of statistics and analysis, Reporting to various statutory authorities, Methods of numbering, Serial number, Unit number system, Serial unit numbering, Filing System-(Decentralized system, Centralized system, Various other methods, Types of Forms).
- 6. Operation Theatre: Observation / involvement in Location, Zoning of Operation Theatre, Infrastructural facilities, Centralized and decentralized Operation Theatres, Equipment requirement, Procurement and maintenance including annual maintenance contract, Functions and policies

of Operation Theatres, Manpower requirement-(Medical

Superintendent, In-charge, Anesthetist, Nursing personnel, Technician, Ward Boy), Duties and responsibilities including standard operation procedures, Safety procedures, Methods of checking

operating rooms for readiness to receive patient,

Periodical sterilization/fumigation, Sterile supply, Equipments procurement and maintenance

MHA-542: International Business

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Unit No.	Content	Lectures
1.	Market Structure – pricing policy – pricing under perfect competition – under pure monopoly –Economic Fluctuations and business – business cycle – business policy – inflation – monetary and fiscal policies.	10
2.	Public – Government's role in different socio-economic systems, Budgets – Allocation of Medical field – central – state governments – structure – five year plans.	10
3.	Medical Tourism: Role of Medical Tourism, Methods to attract Foreign Medical Tourists, Facilities available for foreign patients, Role of travel Agencies, Govt. Policy on Medical Tourism.	12
	Total	32

Suggested Books:

Sr. No.	Authors/ Name of Books/Publisher
1.	Even J. Douglas: Managerial Economics – Theory, Practice and problems, Prentice Hall of India, Dufty N.F. Managerial Economics – Wesley Publishing House, New York, 2007
2.	Verma J.C.: Managerial Economics – Concepts and Analysis for Business Decisions in Indian Environment, Lawrence Publishing House, New Delhi, 2006.

MHA-543: Ethics in Health care Business

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L	re	a	its:	

Unit No.	Content	Lectures
1.	Ethical principals, Civic rights, Consumer protection act, CPA, Guideline of	10
	the CPA, Patient complaints powers & procedures of the district forum,	

Sr. No.	Content

	State and National commission.	
2.	Law and establishment of hospitals-private/public hospitals, legal requirements under medical council Acts.	6
3.	Medical ethics—basic issues, importance, process of developing and implementing ethics and values in an institution — codes of conduct: Hippocrates oath and declaration of Geneva—MCI regulation—professional conduct, etiquette and ethics	9
4.	Patient Medical Records- Policies & procedures for maintaining medical records. e-records, legal aspects of medical records, its safety, preservation and storage.	7
	Total	32

Sr. No.	Authors/ Name of Books/Publisher
1.	Steven, D. Edwards, Nursing Ethics, A principle Based Approach, Macmillan Press Ltd., London, 1996.
2.	Indian Medical council act.

MHA-544: Disaster Management Credits: 2

Unit No.	Content	Lectures
1.	Definition of disaster-To learn to identify and assess disasters in the	10
	community. To set forth policies and procedures for disaster	
	preparedness and to prepare a disaster plan for a hospital	
2.	Basics of disaster management and Mass casualties	5
3.	Components of disaster plan: pre-hospital and hospital	5
	Disaster alertness in Hospital	
4.	Disaster management planning and implementation	5
5.	Severity of illness amongst disaster victims and risk assessment, Mock	7
	exercise on disaster management in Hospital	
	Total	32

36

1.	Maintenance Department:
	Observation of Location of different maintenance department, Lay out, Power Generation and supply, Water Treatment Plant and distribution system, Demineralization Plant with R.O. facility for Dialysis unit, Oxygen Plant, Effluent Treatment Plant, Air Condition Plant and distribution system, Maintenance of the medical equipments, calibration, Maintenance
	of total hospital building civil, electrical and mechanical, Organization, Chief Engineer, Engineer (Civil, Electrical, Mechanical), Supervisor (Electrical, Mechanical, Civil), Technician, Helper, Office Assistant
2.	Bio-Medical Department: Bio Medical equipment and their function, Observation of
	Rio- Medical Equipments, Knowing the name of the Bio-Medical Equipments, Importance and fundamental functions of Bio-Medical Equipments, Maintenance procedures of Bio-
	Medical Equipments, Need assessment and procurement procedure, Periodical audit of Bio Medical Equipment, AMC of Bio Medical Equipments
3.	Diagnostic Imaging: Observation / involvement in Various types of machines like; (CT,
3.	MRI, PET USG with color Doppler), Advantages/disadvantages of different types of machine, Basic
	functioning and maintenance, Special licensing requirement, Special structural
	requirements, Staffing and manpower planning, Cost analysis and profitability, Operation and maintenance
4.	Dental Services: Observation / involvement in Location, Laboratory, Recovery Room, Waiting Room, Storage, Administrative Office, Floors / Walls / Ceiling, Lighting, Plumbing, Ventilation, Equipment and maintenance of equipments
5.	Dialysis Unit: Observation / involvement in Location, Infrastructural facility-(Infrastructure for dal ase dhalysis or out parien dialysis, Infrastructure For inpatient dialysis), Various types/nt dialysis units, Special arrangement for maintantire sterlify, Ambulatory dialysis systeres, Arrangement for stand-by unit
6.	Burn Unit: Observation/involvement in Location, Infrastructural facility, Special equipment requirement for Burn Unit, Attached Laboratory facility,

	Communication facility, Maintenance of Asepsis, Manpower reguirement of Medical, Para Medical, General Staff. Mechanism for specialized training need assessment
7.	Blood Bank: Observation / involvement in Location, Reception, Special arrangements for voluntary donors, Administrative Office, Record Keeping, Servicing rooms, Bleeding Room, Storage Room, Storage equipment, Regulatory requirement, Blood safety procedures, Receive and delivery of blood, Triple screening and check method, Record keeping, Medicolegal aspects, Physical facilities, Waiting facilities, Laboratory facilities, Other facilities, Issuance of Blood Donor Card, Safety devices, Liquid waste management, Procedure for discarding, Staffing- Medical Officer, Paramedical Staff, Non-medical Staff
8.	Mortuary : Observation / involvement in Location, Physical facilities, Body refrigerator, Walk in refrigerator, Capacity decision of Mortuary, Autopsy facility, Requirement for autopsy room, Preservation/identification/leveling of viscera / body fluids and other materials for medico-legal purposes, Embalming procedures, Methods of long distance transport of dead bodies, Arrangements for religious rides, Mortuary traffic control-Internal and External, Identification of bodies using triple check system, Maintenance of records, Various legal requirements, Disposal of unclaimed bodies, Various religious rites
9.	Telemedicine : Infrastructure - both end - (1) Hospital end (2) Nodal Centre Requirement- Computer Monitors, Cameras, Internet connection Observation of telemedicine techniques and taking part in the process, Manpower requirement-Medical Officer, Technician