



KIIT SCHOOL OF PUBLIC HEALTH (KSPH)

MASTER OF HOSPITAL ADMINISTRATION

Detailed Syllabi for Students Admitted to
KIIT Deemed to be University

**ACADEMIC CURRICULA
2024 - 2025 AB**



KIIT School of Public Health

Kalinga Institute of Industrial Technology (KIIT)
Deemed to be University
Bhubaneswar, Odisha, India

COURSE STRUCTURE & SYLLABI

Master of Hospital Administration (MHA)

(2024 - 2025)

Kalinga Institute of Industrial Technology

(Deemed to be University)



SCHOOL OF PUBLIC HEALTH

Kalinga Institute of Industrial Technology (KIIT)

Deemed to be University U/S 3 of UGC Act, 1956

COURSE STRUCTURE & SYLLABI

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MASTER OF HOSPITAL ADMINISTRATION (MHA)
KIIT School of Public Health, KIIT Deemed to be University

Background

KIIT Deemed to be University (KIIT-DU) has fast emerged as an educational hub of Eastern India. With 'A++' grade by the NAAC, Ministry of HRD, Govt. of India, KIIT-DU is among the most diverse and elite Universities of the country. It has been ranked No 1 among the Private Higher Education Indian Universities by Atal Ranking of Institutions on Innovation Achievements (ARIIA). Further, it is the youngest University of India to have received the Institute of Eminence (IoE) status from the Ministry of HRD, Govt. of India, thus making it one of the leading destinations for international students.

KIIT-DU is spread over 36 sq.km area in Bhubaneswar city, Odisha, with over 25 million square feet of aesthetically constructed built up area. The campus is full of greenery and is truly reflective of the philosophy of unity in diversity. With over 40,000 students including 2000 international students from 65 countries, it symbolizes a natural cosmopolitan culture. There are 28 constituent schools, contiguously located in an impeccably landscaped and modern–technology-enabled campuses offering best-of-its-kind education to graduate, post-graduate, doctoral and post-doctoral participants in a wide range of disciplines.

The faculty pool is derived from diverse backgrounds who are highly qualified, having multi-faceted affiliations and skill sets to mentor, guide and nurture young minds in the discipline of their choice. The university has its own entrance examination (KIITEE) for admission into most of the academic programmes and has an excellent track record of nearly 100% placements for almost all the courses being offered. The placement success is driven by a unique academic partnership with several world class universities and the industry. The Institute regularly conducts interaction sessions with more than 15 corporate giants.

Other facilities of the University include excellent convention centre complexes, accommodation for deserving candidates, free access to Wi-Fi, Multimedia Classrooms & ERP, Large Open-Air Theatre, Library, Ultramodern Laboratories, Close Circuit corridors, state-of-the-art Auditorium, Seminar Halls, Sports and Athletic facilities, Cafeteria, and 24x7 Internet and Intranet access.

About KIIT School of Public Health (KSPH)

Public health is a multidisciplinary discipline that involves a range of subjects such as social and behavioral sciences, epidemiology, bio-statistics, environmental science, management science and information technology.

The KIIT School of Public Health (KSPH), KIIT-DU was established in 2015 in response to the need for building a competent health workforce to serve India and other countries; to cater to the needs of evidence-based policy formulation; undertake applied research to solve real life problems; and to create a platform for exchange of knowledge and skills in an environment of scientific discourses.

The School is known for diverse faculty base, expertise on a wide-range of public health domains, multi-centric projects and vibrant teaching-learning environment.

Vision:

Individual wellbeing, healthy and happy population, just society.

Mission:

The KIIT School of Public Health is:

1. Determined to work towards improvement of health of the population, through infusion of technology and innovation
2. Dedicated to develop a competent and globally relevant public health workforce through teaching, training and transnational research
3. Committed to foster an environment of continuous learning and skill enhancement of professionals working in the public health sector and healthcare industries
4. Focused on application of evidences in the real-world policy making and public health practice, through collaborations at local, national and international levels

Core Values:

KSPH has deep commitments to the following core values: integrity, excellence with ethics, equity, cultural diversity, individual dignity, gender sensitivity, and special attention to the vulnerable.

The School draws its strength from faculty pool of various schools of KIIT-DU, specifically from Kalinga Institute for Medical Science (KIMS), School of Biotechnology (KSBT), School of Social Science (KISS), School of Management (KSOM), School of Rural Management (KSRM), and School of Law (SoL). KSPH has national and international collaborations with several Universities/ Institutions/ Organizations that are in the business of health care.

About Master of Hospital Administration (MHA) Programme

The growth of both government and private healthcare sector across the globe, especially in India, has been phenomenal over the last two decades; in fact it is one of the largest and fastest growing sectors both in terms of revenue generation and employment opportunities. Several factors, such as, ever increasing population, advances in science and medical technology, increasing need and customer expectation for quality and timely medical care, governmental policies, commitment to universal health coverage and medical tourism have all contributed. Further, the contribution of private health care sector is fast increasing, as majority of secondary and tertiary hospitals have emerged in last two decades are private in nature. During the Covid-19 pandemic, the partnership of government and private institutions became utterly evident. Thus, there is now a unwavering collaboration between the public and the private sector. The private sector is also making its presence felt in tier II and tier III towns/cities.

Managing complex operations of the hospitals, strengthening various wings, improving quality and patient safety, focusing on efficiency and effectiveness of health care services have become the cornerstone of the private sector. This needs systematic approach, scientific mind and rigorous

follow-up by trained professionals, thus the need for hospital administration as a separate programme of study.

The School of Public Health has active collaborations with the Medical College (KIMS) and attached super-specialty hospital, named Pradyumna Bal Memorial Hospital.

Pradyumna Bal Memorial Hospital

Pradyumna Bal Memorial Hospital is a 2600 bedded multi-specialty hospital that thrives to deliver affordable and quality healthcare to all sections of the society, cutting through the socio-economic and cultural barriers to accessing healthcare.

Key highlights



- 2600 bedded Multi-specialty Hospital including 300 bed cancer care centre and 300 bed super-specialty hospital
- NABL-accredited central laboratory
- 14 modern Operation Theatres
- 100 ICU Beds (including Pediatric and Neonatal ICU with ultra-modern ventilator facility)
- 24x7 Emergency (Casualty)
- CT scan (Multi-slice), and Digital X-ray (800 ma with image intensifier), 1.5 Tesla MRI, Mammography and Bone Densitometry.
- 24x7 Ambulance Services
- 8 Computerized Dialysis Machines
- Phaco Emulsification
- Digital Fundus Cameras
- Sophisticated Central Laboratory Services with state-of-the-art machinaries
- Auto-analyzers for simultaneous measurements of several hematological and biochemical parameters
- Automated blood gas and electrolyte analyzers
- Computerized Tomography scans facilities
- Computerized Treadmill testing (stress testing)
- 2D echo (real time), color Doppler and diagnostic ultrasound
- Pulmonary function laboratory
- Head and neck surgery (micro debrider procedures, nasopharyngoscopy)
- Speech Therapy
- Electroencephalography (EEG), brain atlas and base of skull surgery
- 24x7 Blood Bank with HIV, HbsAg, HCV and VDRL screening & component separation facility
- Audiology laboratory.
- Rheumatology Clinic
- Cochlear implant for the profoundly deaf
- Computerized gait analysis laboratory, total hip and knee replacement and Arthroscopic surgery
- Ultra-modern immunization center
- 24x7 Pharmacy
- Exclusive multi departmental dental clinics

- Top 30 medical college in India (NIRF, GoI)
- Best private medical institution in Odisha
- 750 doctors, 1500 nurses and 300 pharmacists
- Physiotherapy and occupational therapy
- Pain clinic for relief of acute and chronic pain and pain associated with terminal stages of cancer
- Alternative systems of medicine like Homoeopathy, Ayurveda and Yoga
- Specialist services include: Surgery (General, laparoscopic, Minimal Access), Obstetrics & Gynaecology, Orthopaedic, Paediatrics, Ophthalmology, ENT, Dermatology with Cosmetic care, Anesthesiology, Psychiatry, Medicine, Fully modern Dental department with enamel surgical procedures
- Super-Specialized Facilities include: Oncosurgery Facilities, Gastroenterology, Pediatric Surgery,
- Intensive Care Units (ICUs) and Neonatal Intensive Care Unit (NICU)
- 8 Computerized Dialysis Centres equipped to provide services to patients with kidney failure. The centres function under the leadership of experienced nephrologists from AIIMS.
- Diagnostic Gastrointestinal Endoscopies,
- PCNL procedures for urological problems
- Orthopedics: Capability to perform advanced orthopedic surgeries such as total knee replacement and total hip replacement, arthroscopy, spinal surgery & ligament repair.
- Cosmetic and reconstructive, micro vascular and early burn surgery
- Intraocular Lens (IOL) Implantation and fluorescence Angiography, retinal surgeries. It is one of the few centers in Odisha where facility of retinal surgery is available.
- Electroencephalography (EEG), brain atlas and base of skull surgery, EMG study

The hospital has attracted highly educated and experienced specialists and super-specialists from different streams of medicine and research institutes of national and International repute. The PBM Hospital is very well equipped to provide hands-on training for doctors, nurses, hospital managers and other paramedical and support staff.

The MHA programme aims to develop a cadre of professional hospital administrators to assume the responsibilities of managing hospitals in government, private, and missionary settings. The MHA graduates are expected to get into a variety of roles, as able hospital administrators, quality control experts, operations managers, team leaders, general managers, CEOs, entrepreneurs, research leaders and academicians. The curriculum and pedagogy of MHA have been developed keeping in



mind the knowledge and skillsets of the contemporary hospital industry. The programme offers electives to students to choose from a basket that are uniquely designed to fulfil the aspirations of individual's professional development and at the same time fulfilling the demands of the hospital Industry. The curriculum is designed to create administrators with various thematic expertise, such as, total quality management, patient safety, hospital designing and commissioning, operations management, logistics management, human resources management, financial management experts and communication specialists.

The MHA is a competency based academic program that prepares students to stand out in hospital industry. The degree is designed to be completed in 4 semesters spanning over two years, but has a provision to complete it over a maximum period of 5 years from the date of registration.

Objective(s):

The overall objective of the MHA Program is to create skilled and competent hospital administrators to undertake needs assessment, analyze problems, identify and implement solutions and evaluate effectiveness services/ interventions in hospital settings in Indian and overseas so as to meet patient expectations and attain maximum client satisfaction.

Specific Objectives of MHA Program:

By the end of two years programme the student will be able to:

- Describe basic concepts of hospital planning and organizing healthcare services
- Realize the complexities of organizational structure & functions of hospitals
- Recognize the importance of various clinical & support services provided at a hospital
- Learn about various hazards and safety issues associated with hospital waste management and best practices
- Understand planning and commissioning process of hospitals
- Understand medical record keeping process and its medico-legal importance
- Examine and solve day-to-day problems in a hospital
- Conceptualize dimensions of quality assurance and take measures for quality monitoring and enhancement of patient satisfaction
- Apply managerial principles in the provision of health care services, such as, communication techniques, logistics management principles, HRM principles, OB principles and marketing strategies.
- Lead managerial functions of the hospital, such as, planning, organizing, monitoring and strategizing for the hospital

Eligibility

1. Bachelors' degree in Medicine, AYUSH, Dentistry, Nursing, Pharmacy, Veterinary Sciences, Physiotherapy, or Allied Health Sciences from a recognized university with minimum 50% marks in aggregate, (or)
2. Bachelor's degree in Technology (BTech), Computer Application (BCA), Hospital Administration (BHA/BHM), Public Health (BPH/BSc-PH), Business Administration (BBA), Law (LLB) or equivalent degree from a recognized Institute or university with minimum 50% marks in aggregate, (or)
3. Bachelors' degree in Science/Arts/Commerce from a recognized Institute or university with minimum 50% marks in aggregate, (or)
4. Bachelor's degree or equivalent in any other discipline from a recognized Institute or university with minimum 50% marks in aggregate.

All the above qualifications must be from Universities/institutions recognized by UGC or government of India, and the medium of instruction must be English. Those candidates with prior relevant experience will be given preference for admissions in case of a tie in the academic profile / performance in the entrance examination.

Selection and Other Details

Medium of Instruction:

Medium of Instruction for MHA will be English.

Credit Hours and Duration of Study:

The programme is offered on full-time basis and consists of four semesters, spread over two academic calendar years, including internship and project work. First, Second and Third semesters are for on-campus studies only. During the Fourth semester, students are required to undertake internship and project-related field work as per the course requirements. One semester consists of a minimum of 90 working days.

One credit shall consist of 15 contact hours for class-room teaching and 30 contact hours for practical/sessional activities.

Role of Yoga:

Yoga is a non-credit course to be offered in collaboration with the School of Yoga, KIIT-DU, in the first semester. A satisfactory grade from the School of Yoga, KIIT-DU is required to obtain the final degree from the University.

Inter-semester break:

End-semester breaks, if any, will be notified at the beginning of the semester based on approved academic calendar of the University. Students will be encouraged to undergo internships or hospital postings during inter-semester breaks and summer breaks.

Selection process:

(i) Indian students:

Eligible Indian students need to appear the All India online KIITEE Entrance Examination (<https://kiitee.kiit.ac.in>) to be qualified for admission into MHA programme. The entrance examination is aimed at screening and selecting suitable candidates with proper aptitude to pursue Masters' Degree.

(ii) Overseas students:

Eligible overseas students will be selected based on educational qualifications, experience and online interview. Students will have to provide certification of proficiency in English at the time of selection.

All the applicants have to submit their original certificates for verification at the time of admission.

Fee Structure:

Fee structure will be decided by the University and will be notified in the admission brochure/student manual.

Accommodation:

Selected candidates will be given accommodation in campus hostels as per the university procedure, subject to availability of seats.

Stipend:

No Stipend will be given to the students during the MHA programme. However, students may avail scholarships as and when they are available and notified from time to time. Students are also encouraged to apply for government-sponsored scholarships whenever available.

How to Apply:

Interested candidates may apply through the online portal at <https://www.kiitee.kiit.ac.in/>

Examination, Evaluation & Grading

General Rules of Examination:

At the end of each semester, there shall be an examination called End-Semester Examination.

If a student fails in a subject during a semester examination, a Supplementary Examination will be conducted in the early part of next academic session/semester. If a student fails in the project work, he/she shall be evaluated after six months.

Examination of Theory:

Each item under Theory shall be evaluated on the basis of 100 percentage points, subdivided in to internal assessment of 50 percentage points and end-semester examination of 50 percentage points.

Internal Assessment:

The minimum qualifying marks in the internal assessment is 50% to be eligible to appear in the End-Semester Theory Examination.

The Internal Assessment comprises of:

- (i) Mid-semester examination: 30 percentage points

A mid-semester examination will be conducted as per academic calendar approved by the University. The mid-semester examination will be of two hours duration. It will be evaluated by the subject teacher within 15 days of the actual conduct of the examination. After evaluation, the mid-semester copies are to be shown to the students for any omission or correction. Accordingly, revision of evaluation (if any) by the subject teacher, marks will be finalized. In case a student secures less than 50% mark, she/he will appear for a re-mid-semester examination for the concerned subject(s).

- (ii) Quiz / assignments: 20 percentage points.

The pattern of evaluation under each category and the distribution of marks in the quiz and assignments will be announced by the subject teacher with due approval from the Head of the School at the beginning of each semester.

It should be the endeavor of all students to secure a minimum of 'C' Grade in a theory subject after the end-semester examination. Students can appear improvement examinations with C or D grades both in the end-semester examinations (Autumn / Spring) and the supplementary examination in the next available opportunity for the said theory paper to improve his/her grade.

End-Semester Examination:

The question paper of concerned subject will be set by an external or any faculty as decided by the Director of the School. The externals should be in the rank of Assistant Professor or above.

The end-semester examination will be of 3 hours duration.

The end-semester examination papers will be centrally scanned and evaluated by two faculty members of the school as appointed by the Director of the School, to complete the evaluation within 15 days from the last date of examination. After evaluation, scanned copies are to be shown to the students for any omission or correction. On the student's feedback and after re-evaluation (if

any), marks will be finalized and forwarded to the Controller of Examinations within a period of 18 days from the last date of examination. The final results shall be published within a period of 20 days from the last date of examination by the Controller of Examinations.

Evaluation of Seminar / Journal Club:

Seminar/Journal Club will be having 100 percentage points. There will be no formal / written examination for evaluation of the Seminar / Journal Club activities. A Seminar Committee appointed by the Head of the School shall evaluate it.

- (i) Evaluation of Seminar: Student will choose a seminar topic in a given semester and present it in front of two internal evaluators approved by the Head of the School. The marks will be distributed based on attendance, chosen topic, preparation of slides, presentation skills, content, and ability to respond to questions.
- (ii) Evaluation of Journal Club: Student will choose a recently published journal article from an indexed journal in relation to the modules covered in a given semester. He/she will present a PPT in front of two internal evaluators approved by the Head of the School. The marks will be distributed on abstracting skill, presentation skill, discussion and critical appraisal.

Evaluation of Project Work and Viva Voce:

The project work will be of 100 percentage points.

Project work write-up as well as viva-voce will be evaluated by one internal and one external examiner, both duly approved by the Head of the School. The External shall be in the rank of an Assistant Professor or above, from within KIIT-DU excluding the School of Public Health or any other universities of Odisha or outside.

Evaluation of the project work write-up (60 percentage points) will be undertaken by the external examiner; Viva Voce (40 percentage points) which will be conducted jointly by one internal and one external examiner. Marks will be allotted by both the Examiners through consensus. In case of any difference of opinion, the decision of the Head of the School will be final and binding.

Evaluation of Internship:

Internship constitutes 100 percentage points.

The work done by the student during the Internship will be evaluated on the basis of the feedback given by the external supervisor (of the organization where the internee was posted) and the internal supervisor as assigned by the Head of the School (60 percentage points) and class presentation (40 percentage points) assessed by two faculty members appointed by the Head of the School.

Guidelines about Project Work Write-up:

Project work should be written in original and in not less than 10000 words with the following heads and sub-heads:

- a. Background: Introduction about the topic and its significance

- b. Literature review and rationale: Should include recent, relevant and exhaustive literature
- c. Objectives, Research questions: Should include specific objectives and research questions
- d. Methods: It includes study settings, sampling, data collection tools, ethical issues and data analysis
- e. Results, Discussion & Recommendation: It covers the art of relating the results with contemporary knowledge and contrasting it with other studies, recommending on the basis of study findings.
- f. References: A minimum of 20 articles/books/reports should be referenced with use of appropriate referencing style.
- g. Plagiarism: Each submission will be accompanied with a Plagiarism report (from Turnitin report).

Guidelines about Internship Report Write-up:

The Internship Report should be written in original and not less than 10000 words with the following heads and sub-heads:

- a. Background of the organization
- b. Background of the project
- c. Literature review
- d. Objectives and activities
- e. Key findings
- f. Key learnings
- g. Recommendations

Grading & Performance Index:

A seven-point grading system (**GS**) on a base of 10 is followed for grading in the examination categorization of these grades and their correlation shall be as below:

Qualification	Grade	Score on 100	Point
Outstanding	'O'	90 to 100	10
Excellent	'E'	80 to 89	9
Very good	'A'	70 to 79	8
Good	'B'	60 to 69	7
Fair	'C'	50 to 59	6
Below average (Pass)	'D'	40 to 49	5
Failed	'F'	Below 40	2

CREDIT POINT = CREDIT X POINT for each Course item.

CREDIT INDEX (CI) = \sum CREDIT POINT of all course items in a semester.

SGPA: Semester Grade Point Average (**SGPA**) = CI / \sum CREDITS (for a semester) is the credit weighted average of grade points earned in all the subject items in a Semester. It indicates the performance level of a student in a particular semester.

CGPA: Cumulative Grade Point Average (**CGPA**) = $[\sum CI \text{ of all previous semesters up to current semester}] / [\sum \text{CREDITS of all previous semester up to current semester}]$. It indicates the current performance level of a student.

Note: Letter grade “I” will be awarded in case the candidate fails to appear in the examination of any subject.

Attendance:

If a student’s attendance in a subject item falls below 75%, he/she will be debarred from appearing in the end-semester examination in that subject item.

Pass / Fail in an individual course:

- The minimum pass grade in Sessional is ‘C’.
- The minimum pass grade in theory is ‘D’. Below that, it would be the Fail, i.e. ‘F’ grade.
- The student will be promoted to the next semester even if s/he has failed in one or more subjects. However, the student has to secure pass grade in the failed subject(s) subsequently through the Supplementary Examination.
- The Supplementary Examination will be conducted annually following the rules and regulations for the KIIT-DU. Student shall follow the rules and regulation of KIIT-DU available at <http://coe.kiit.ac.in> for appearing in the examination or to clear back paper.

Degree Requirement:

A student must

- (i) Complete all the credit requirements for the Degree as laid down in the prescribed curriculum of the discipline with a minimum of “D” Grade scored in every theory and a minimum of “C” grade in every Sessional item.
- (ii) A satisfactory grade in Yoga from the School of Yoga, KIIT-DU, is necessary for the award of the degree.
- (iii) Obtain a minimum CGPA of 6 or higher at the end of semester in which he/she completes all the requirements for the degree.

Degree certificate will be kept on hold till the payment of all institutional dues of the University including hostel fees. Maximum a period of 4 years is allowed to a student to fulfill the degree requirements. No degree shall be offered to a student after four years of enrolment with the university.

Special Tracks:

The KIIT School of Public Health offers special tracks for in-house students and external candidates. The special tracks are competitive, domain specific, additional programs beyond the core curriculum aimed at honing the students as per the industry need on specific thematic domains pertaining to public health and health care services. Students may apply for one or more tracks (in the order of their preference) towards the end of their second semester. However, they can only participate in one special track. Students are expected to attend all the special track-specific classes and related practical sessions in addition to the core curriculum. External candidates interested for

the special tracks will have to contact the school prior to the beginning of each academic year. Please refer to specific syllabus for further details.

Project Work:

The preparation for project work will start as early as the end of first semester, immediately after allocation of the guides. During the second semester, problem identification, conceptual framework and topic finalization will take place. During third semester the methodology and ethical clearance will be obtained. One manuscript is desirable by end of third semester for submission to an indexed journal. During the fourth semester the internship report and project report need to be submitted.

Internship:

A student will be encouraged to undergo internship during the inter-semester breaks. Internship during the final semester is mandatory. He/she may identify a hospital or any healthcare organization through mutual discussion and agreement. The School will provide all coordination and follow-up support for this. A local supervisor from the hospital/organization will be finalized and allotted to the student to work with. A final report duly signed by the local supervisor will be submitted to the School for approval of the guide and the Head / Director of the School.

Career Opportunities After MHA

In view of the rapid urbanization, population growth, rise in per capita income and emerging health challenges of both rural and urban population the pressure on health care delivery institutions is steadily on the rise. The focus is also shifting towards quality of care, patient safety and professional management of hospitals. Efficiency and effectiveness, patient satisfaction, reduction of waiting time, optimal performance of the hospital have become core management objectives. Thus, the demand for trained hospital managers is also on the rise. Graduates with MHA degree are likely to:

- Join in a hospital as an administrator for the entire hospital or any specific unit of the hospital.
- Explore opportunities as hospital manager or hospital planner or hospital service evaluator in public, private, corporate and missionary hospitals.
- Join as a project manager in National Health Programmes at the District, State or National Levels.
- Utilize skills in the domain of health insurance and quality assurance certification.
- Pursue higher studies such as PhD and research for an academic career



Uniqueness of MHA Program at KSPH

1. A competency-based curriculum that prepares students to stand out.
2. Combination of conventional and modern pedagogy: lectures, small group discussions, independent class and homework assignments, simulations, debates, case studies, role plays, demonstrations, experiential learning techniques, slide-shows, videos, case presentations, etc enable students to participate, experience and apply what they have learned.
3. An interdisciplinary faculty pool of experts ensure delivery of the curriculum in an uncompromising manner
4. Practicum opportunity in the field, following theoretical learning in the class
5. Hands-on training in health care facilities, community-based clinical care centres and hospitals.
6. Guide-assisted thesis preparation and internship activities
7. Mentorship-driven close interaction with the students and solving their education related problems in the campus
8. Focus on soft skill development as writing, presentations, group discussion, data analysis and documentation
9. Active participation in academic and scholarly endeavours through seminars and journal club sessions
10. Guest faculty involvement in teaching some of the core topics
11. Encouragement for participation and presentation of papers in national and international training workshops / seminars / conferences
12. Attractive career path with academic and research possibilities



MHA Curriculum at a Glance

Code	Subject/Course	Contact Hours per Week			Credits
		L	T	P	
Semester I					
HE61001	Principles and Practices of Public Health	3	1	0	4
HE61003	Organizational Behavior	2	1	0	3
HE61005	Principles of Epidemiology	3	1	0	4
HE64001	Biostatistics	1	1	1	3
HE64003	Research Methods	1	1	1	3
HO61007	Human Resources Management	2	1	0	3
HO68001	Hospital Posting and Seminar	0	1	2	2
	Total Semester I				22
Semester II					
H061014	Communication in Hospitals and Healthcare	2	1	0	3
HE61004	Health Economics and Financial Management	2	1	0	3
HO61006	Hospital Planning, Designing and Safety	2	1	0	3
HO61008	Materials and Supply Chain Management	2	1	0	3
HO61010	Management of Clinical Services	2	1	0	3
HO61012	Management of Diagnostic and Support Services	2	1	0	3
HO68002	Hospital Posting and Seminar	0	1	2	2
	Total Semester II				20
Semester III					
HO71001	Law and Ethics in Hospitals	2	1	0	3
HO71003	Hospital Management Information System	2	1	0	3
HO71005	Hospital Infection Control and Waste Management	2	1	0	3
HO71007	Strategic Management and Marketing Management in Hospitals	2	1	0	3
HO71009	Quality Management in Healthcare	2	1	0	3
Special Tracks					
HE74101	Implementation Science and Operations Research	3	2	1	6
HE74201	Technology in Health and Health Informatics	3	2	1	6
HE74301	Health Insurance and Risk Management	3	2	1	6
HO78001	Hospital Posting and Seminar	0	1	2	2
	Total Semester III (with one special track)				23
Semester IV					
HO77002	Project Work*	0	0	24	12
HO78002	Internship*	0	0	12	6
	Total Semester IV				18

L=Lecture; T=Tutorial; P=Practical; *Evaluation modalities specified

Total Credits of MHA Programme = 83 (Sem I = 22; Sem II = 20; Sem III = 23; Sem IV = 18)



SEMESTER I

Module Code: HE61001

Credits: 04

Module Name: Principles and Practices of Public Health

Learning Outcomes

By the end of this course, students should be able to:

1. Remember the definitions of health, disease and wellbeing
2. Understand the emerging concepts of health (i.e. international health, global health, One health & Planetary health)
3. Recognize models of healthcare service provisions in India
4. Understand different types of healthcare systems in India
5. Analyze the role of hospitals in healthcare delivery system
6. Enumerate steps in estimation of economic dimensions of health and disease
7. Realise the approaches to public health practice

Unit 1: Concept of Health, Disease and Wellbeing

- Definition of health, disease and wellbeing
- Dimensions & determinants of health
- History, scope and functions of public health
- Natural history of disease & disease dynamics
- Concepts of disease control, elimination and eradication
- Prevention of diseases & Promotion of health, Changing pattern of diseases, Health indicators, Newer concepts in health –global health, one health, planetary health, Role of hospitals in disease control.
- Disease burden, measurement of health – mortality and morbidity, e.g. DALY, QALY, PQLI, HALE, HDI etc.
- Individual & herd immunity; levels of prevention

Unit 2: Introduction to human physiology and key terminologies

- Introduction to various system of human body and terminology
- Investigation terminology
- Genetic disorder and counselling
- Basic immunological concepts

Unit 3: Health & Healthcare Services

- Health Statistics of India: health & healthcare service indicators, current scenario
- State role in health care – constitutional & other provisions, health as a right
- National health policy, Universal Health Coverage, National Health Programme, SDGs
- Primary healthcare, Antimicrobial/Antibiotic resistance; introduction to Global Health and One Health.

Unit 4: Health Care Systems

- Development of Indian Health Care Sector/Services (from Bhore Committee 1946 to National Health Policy 2017), Classification of healthcare system
- WHO health system framework
- Role of private sector in health service provision, Comparison between public and private health care provision, Public-private partnership in health care provision, Scope & future of

private health care in India

Unit 5: Public Health Principles, Practices and Actions

- Principles of Public Health Practice; Public health Surveillance; Outbreak investigation and response, Concept of Bioterrorism
- Introduction to Disaster management, disaster preparedness and response in health sectors, disaster management in India with reference to health sector
- Public Health Laboratory services
- Technology application in Public health – Biotech, rapid diagnostic tests, ICT in Healthcare; GIS, digital health; Concept of Telemedicine, e-health, m-health etc.

Practicum / Sessional

- Seminar -2; Journal Club – 2; Group Discussion – 1; Case Study – 1

Text Books & Key Readings:

1. Concepts in Health and Wellness by James Robinson, III & Deborah J. McCormick. (2011). Delmar Cengage Learning.
2. Essentials of Public Health Biology: A Guide for the Study of Pathophysiology by Constance U. Battle. Jones and Bartlett Publishers, Inc; 2nd Edition (2009)
3. Park's Textbook of Preventive and Social Medicine, 26th Edition (2021), K.Park. Banarsidas Bhanot publishers.

Journals

1. Indian Journal of Public Health
2. Indian Journal of Community Medicine
3. Journal of Hospital Administration

Module Code: HE61003

Credits: 03

Module Name: Organizational Behavior

Learning Outcomes:

By the end of this module, the students will be able to:

1. *Recognize role of individuals and organizations in attainment of objectives*
2. *Describe the individual traits in an organization and its role in healthcare*
3. *Appreciate the organizational structure of hospitals/organizations*
4. *Analyze organizational culture and stressors at workplace*
5. *Apply the concept and theories of organizational behavior at work*
6. *Apply techniques of stress management, problem solving and conflict resolution in healthcare/hospital settings*

Unit 1: Overview of organizational behavior in healthcare and hospital settings

- Introduction, components of organizational behavior (Sociology and Anthropology, Basics of Psychology)
- Individual characteristics: Learning, Motivation, Attitude, Personality and Leadership
- Creating thinking and problem solving
- Behavior of people at work place, Groups and Teams, Characteristics of work groups &



Dynamics of team members

- Transactional analysis
- Organizational culture & change management
- Organizational Behavior & its application in hospital setting: Concept of healthcare institutions, services industry and hospitals
- Evolution of hospital services: Indian & Global Scenario
- Changing Role of Hospitals in a Globalized Society
- Privatization in Health Sector
- Patient centric health care and concepts of patient satisfaction

Unit 2: Organizational Structure and Functions of Hospitals

- Types of Hospitals according to ownership and specialization (General, specialist, super specialist), Bed Strength and Profit: Non-profit hospitals; General, Corporate, Teaching and Non-teaching hospitals)
- Functional units of hospitals
- Functions of Hospitals (care of sick & injured, education of physicians, nurses, others, disease prevention & health promotion, waste disposal, education, training & research)

Unit 3: Hospital as an Organization

- Hospital as a complex organization
- Systems approach to hospitals (Input, process, output, outcome)
- Management structure of a Hospital (Governing Body, Hospital Committees, Medical Director, Medical Superintendent, Hospital Administrator, Nursing Superintendent, Departmental Heads)

Unit 4: Attributes of a Manager

- Managerial activities in healthcare and hospitals
- Duties, functions & responsibilities of a manager/hospital administrator
- Managerial Attributes
- Competencies required for an efficient and effective hospital Manager– planning, communication, delegation, decision making, managing time and meetings, negotiations, innovations & leadership

Practicum / Sessional:

- Seminar -2; Group Discussion – 1; Case Study – 2

Text Books & Key Readings:

1. Text book of Organizational Behavior by Fred Luthans. McGraw Hill Publications
2. Principles of Hospital Administration by S. A. Tabish
3. Sonu Goel, Anil Kumar Gupta and Amarjeet Singh (2014). (Editors). Hospital Administration – A Problem-Solving Approach. New Delhi: Elsevier.
4. BM Sakharker- Hospital Administration

Journals:

1. Journal of Hospital Administration (JAHA)
2. Journal of Organizational Behavior Management



Module Name: Principles of Epidemiology

Learning Outcomes:

At the end of this module, the students will be able to:

1. Define epidemiology and concepts related to disease, host and environment
2. Recognize importance of epidemiological study designs in conducting research
3. Understand the concept of the natural history of the disease, levels of prevention, disease causality, and errors in epidemiological measurement
4. Analyze epidemiological data for evidence-based public health practice
5. Apply basic principles of infectious disease epidemiology for prevention and control of infectious diseases including outbreak investigation
6. Apply basic principles of non-communicable diseases for the prevention and control of NCDs
7. Design appropriate epidemiological study for assessment of disease burden and disease determinants

Unit 1: Introduction to Epidemiology

- Definition and objective of epidemiology, History, and Evolution of epidemiology, Scope and uses of epidemiology, Achievements in epidemiology
- Epidemiology Triad and tetrad, Distribution and determinants of disease; Disease transmission dynamics, Natural history of disease and levels of prevention, Screening
- Concept of causality, risk factors and determinants of disease, Genetic and Environmental factors in disease causation.
- Measurements in Epidemiology (morbidity, mortality, disability, survival) - Rates, ratios, and proportions, prevalence and incidence, Direct and indirect standardization, Quality of life
- Ethical and Professional Issues in Epidemiology

Unit 2: Epidemiologic Methods & Approaches

- Epidemiological study designs: Observational, analytical & experimental study designs, uses and applications
- Screening and surveillance: Role of screening in disease prevention and effective management, Types of surveillance, Outbreak investigation and management
- Ethical issues in epidemiological investigations

Unit 3: Measurements and Applications

- Measurements in Epidemiology (morbidity, mortality, disability) - Incidence and prevalence, Usage of rates, ratios and proportions
- Concept of risk - absolute risk, relative risk, odds ratio, attributable risk, population attributable risk
- Association and causal relationship
- Types of Bias, Concept of confounding
- Application of study designs in public health practice and clinical practice:
 - Validity and reliability of diagnostic and screening tests, interpretation of series and

parallel testing

- Assessing the efficacy of preventive and therapeutic measures

Unit 4: Infectious Diseases and Non-communicable diseases epidemiology

- The Dynamics of disease transmission - mode of transmission; clinical and subclinical diseases, carrier status; concept of endemic, epidemic, pandemic, disease outbreak & its determinant; herd immunity, incubation period, lead time, attack rate, transmission rate,
- Outbreak, epidemic, pandemic, types of epidemics
- Concepts of disease control, elimination, and eradication
- Infectious disease surveillance
- Outbreak investigation
- Basics of NCD epidemiology, causality, latent time, lead time, iceberg phenomena, risk factor approach, common NCDs & shared risk factors
- NCD risk factor and disease surveillance
- Application of epidemiological principles in national health programmes

Practicum / Sessional:

- Epidemiological data analysis - Measures of incidence & prevalence, Risk estimation
- Data entry into Excel/SPSS
- Data presentation - Graphs, Charts and Tables
- Data analysis using Excel/SPSS

Text Books & Key Readings:

1. Leon Gordis (6th Edition), Epidemiology, Saunders (Elsevier Inc) Publication
2. Basic epidemiology by World health Organization, Ruth Bonita, Robert Beaglenole, Tord, Kjell Storm, 2nd Edition 2007, WHO
3. Textbook of Modern Epidemiology by Rothman

Module Code: HE64001

Credits: 03

Module Name: Biostatistics

Learning Outcomes:

By the end of this course, the students will be able to:

1. *Understand concepts of statistics and relevance in public health*
2. *Recognize theories of distribution, probability and sampling*
3. *Apply principles of biostatistics in population level data analysis*
4. *Design tools for data collection and analysis*

Unit 1: Introduction to biostatistics

- Meaning and usage of statistics: Meaning of Statistics Application of statistics in healthcare
- Variables: Nominal, Ordinal, Interval and Ratio scale variables; discrete and continuous variables; qualitative and quantitative variables
- Measures of central tendency: Mean, Median, Mode; Merits and demerits of different measures.

- Measures of dispersion: Range, Inter-quartile range, Quartile, Variance, Standard Deviation; Uses of different measures of dispersion.
- Data presentation: Frequency distributions, Tabulation of data; Graphical presentation of data; Types of diagrams - bar chart, pie chart, line diagram, histogram, scatter plot, box plot

Unit 2: Probability and distributions

- Probability: events; exhaustive, mutually exclusive events; laws of probability, additive and multiplicative laws of probability and its properties, Bayes Theorem
- Probability distributions:
 - Normal distribution and its properties
 - Central limit Theorem
 - Binomial distribution
- Poisson distribution and their properties

Unit 3: Concepts in sampling and hypothesis testing

- Sampling: Concept of population and sample, Types of sampling, sample size calculation
- Hypothesis testing: Statistical hypothesis, One sided and two-sided test of hypothesis, Confidence Interval, Type I and Type II errors

Unit 4: Concepts in inferential statistics

- Comparison of means: t-test for small samples, independent and paired t-test; ANOVA, uses and interpretation
- Chi-square test: Pearson's Chi-square coefficient, and its properties; uses and interpretation
- Correlation: Concept of correlation, Pearson correlation coefficient, and its properties; uses and interpretation
- Basics of regression: Types of regression, regression coefficient, interpretation and uses
- Nonparametric tests: Difference between parametric and non-parametric tests; assumptions of parametric tests; types of non-parametric tests; use non-parametric tests

Practicum / Seasonal

- Data entry into Excel/SPSS
- Data presentation - Graphs, Charts and Tables
- Data analysis using Excel/SPSS/R

Text Books & Key Readings:

1. Rao PSSS, Richard J. Introduction to Bio-statistics and Research Methods. 5th edition. PHI publisher, 2012.
2. Indrayan A, Malhotra RK. Medical Bio-statistics. 4th edition. Chapman & Hall Publishers, 2018.
3. Marcello Pagano and Kimberlee Gauvreau (2000) "Principles of Biostatistics" Second Edition, Duxbury Thomson Learning, United States.

Journals

1. Indian Journal of Biostatistics

**Module Name: Research Methods***Learning Outcomes:*

By the end of this course, the students will be able to:

1. *Discuss basic concepts of science and research, and methods to conduct public health research*
2. *Recognize various research designs and data collection tools*
3. *Realize critical dimensions of public health research, such as, settings, sampling, ethical issues, consenting, data collection, data analysis and report writing*
4. *Design research proposals on public health with scientific rigor and research acumen*
5. *Undertake and evaluate public health interventions using appropriate research designs*

Unit 1: Basics of Health Research

- Definition, objective, nature, scope and characteristics of research
- Research philosophies and research processes, Paradigms of research thinking
- Problem identification, Problem statement
- Research questions, Study objectives, and Hypothesis development
- Literature review and systematic review, referencing (including hands-on use of softwares for referencing)
- Criteria of good research and challenges in health care research
- Research methods versus research methodology
- Ethical and professional issues in research
- Health Care Research versus Health Systems Research
- Getting research into policy and practice
- Developing research proposals

Unit 2: Research Design and Methods

- Researchable problem
- Research Designs and their applications in health care:
 - Observational Studies: Descriptive, Exploratory and Explanatory
 - Experimental Studies: Pre-Post, Longitudinal designs and Clinical trials
 - Epidemiological Studies: Cohort, Case control, Cross sectional, Interventional and Panel studies
- Sources and types of errors in research and strategies to minimize errors

Unit 3: Sampling and Measurements in Research

- Fundamentals of Sampling: Necessity and significance of sampling, Central Limit Theorem and Sampling theory
- Sampling Designs: Census and Sample Survey, Steps in sampling design, Criteria of selecting a sampling procedure, Characteristics of a good sample design
- Sampling types: Probability and non-probability sampling; Multi-stage sampling; Sampling with probability proportional to size, Sequential sampling
- Sample Size estimation for different studies
- Measurements in Research: Measurement Scales, Sources of error in measurement
- Developing measurement tools

- Scaling: classification, methods and construction
- Tests of measurement

Unit 4: Data Collection and Interpretation

- Data vs Information; Different types of data and their characteristics
- Methods of Data Collection: Census vs Survey, Primary Data vs Secondary data
- Data collection tools and techniques
- Data presentation techniques: editing, cleaning, coding, classification, tabulation, graphic and diagrammatic presentation techniques
- Data Interpretation: Essentials for data interpretation, Precautions in interpretation
- Conclusions and generalization, Objectivity in interpretation
- Report writing: Basic structure and characteristic of a report, types of reports and stages in preparation of report, techniques of report writing

Practicum / Sessional:

- Hands-on softwares (MS Office, Mendeley, SPSS, Atlas. ti)
- Literature search
- Referencing styles

Each student will develop a real research proposal during the course of this module.

Text Books & Key Readings:

1. Introduction to Health Research Methods-A Practical Guide, (2nd Edition) by Kathryn H. Jacobsen, 2016.
2. Research Methodology for Health Professionals (1st Edition) by RC Goyal, 2013. Jaypee Publication
3. Kothari C R. Research Methods & Techniques. New Age International Private Ltd., New Delhi, 2000
4. Mahajan B.K. Methods of Biostatistics for Medical Students and Research Workers, 8th Edition, Revised and edited by Arun Bhadra Khanal, The Health Science Publisher, New Delhi.
5. Hill A.B. Principles of medical statistics, Oxford University press, New York
6. Designing and Conducting Survey Research: A Comprehensive Guide, 4th Edition, by Louis M. Rea, and Richard A. Parker. 2014.
7. Determining Sample Size and Power in Research Studies- A Manual for Researchers by J. P. Verma and Priyam Verma, 2020. Springer Publication

Journals:

1. Indian Journal of Public Health
2. Indian Journal of Community Medicine
3. International Journal of Epidemiology

Module Name: Human Resources Management

Learning Outcomes:

At the end of this module, the students will be able to:

1. *Understand the concept and function of Human Resource Management*
2. *Apply Human Resource Management Perspective in an organization*
3. *Able to plan human resources and implement techniques of job design*
4. *Develop Competency to recruit, train, and appraise the performance of employees*
5. *Apply the tools and techniques for performance appraisal of staff*
6. *Ability to handle employee issues and evaluate the new trends in HRM*
7. *Learn and apply the steps in designing, implementing, and evaluating training programme.*
8. *Enlist various labour laws*

Unit 1: Fundamentals of Human Resources Management

- Concepts & Evolution of Human Resource Management
- Importance of HRM in Hospital.
- Functions of HR – Recruitment, performance management, Compensation and rewards, Training, skill development, Policy formulation, regulatory compliance,
- Human Resource development.
- Line and Staff Authority
- Employee rights and responsibilities
- Challenges in HR - Problem-solving among the hospital staff - types of problems – inter & intra rank staffs, their identification.

Unit 2: Performance Management

- Performance appraisal - Methodology & tools of performance appraisal, importance of performance appraisal.
- Discipline, Indiscipline, suspension.
- Employee satisfaction, employee satisfaction survey, employee turnover rate, and exit interview.
- Human Resource Information System (HRIS)

Unit 3: Industrial Relations

- Scope and importance of industrial relations.
- Wage fixation and collective bargaining
- Labor laws – Factories act, Minimum Wages Act, Workman Compensation Act, Contract Labor (Management & Abolition) Act 1970, Industrial Disputes Act, Employee state insurance act.
- Trade Unions, Industrial relations in health services industries.
- Protection of Healthcare service personnel (Doctors, Nurses, Paramedical workers, and other staff)

Practicum / Sessional:

- Seminar -1; Journal Club – 1; Group Discussion / Case Study – 1
- Hospital Departmental Posting 18 hours in the entire semester for this module

Each Seminar/JC/GD/Case study presentation lasts for 2 hours.



The list of topics will be notified at the beginning of each semester.

Text Books & Key Readings:

1. Human Resources Management-by L. M. Prasad. 2007. Sultan Chand & Sons
2. Managing Human Resources: Human Resource Management in Transition - Martin Edwards, Stephen Bach. 2013. Wiley

Journals:

1. Journal of Hospital Administration (JAHA)
2. Indian Journal of Research Foundation of Hospital and Healthcare Administration
3. Indian Journal of Hospital Administration

Module Code: HO68001

Credits: 02

Hospital Posting and Seminar

Objectives of Hospital Posting: Get hands-on experience and exposure to the practical dimensions of all that was covered in theory classes.

Expected Outcomes: Practical exposure and hands-on training

SEMESTER II

Module Code: H061014

Module Name: Communication in Hospitals and Healthcare

Credits: 03

Learning Outcomes: *At the end of this module, the students will be able to:*

1. Describe the process, channel and techniques of communication in healthcare and hospital settings
2. Recognize the importance and use of technology in hospital-based communication
3. Analyze various communication related barriers and challenges in hospitals
4. Understand techniques of public relation in hospitals
5. Apply principles of communication to develop strategies for effective health communication in hospitals

Unit 1: Fundamentals of Communication

- Basic understanding of communication; element of communication and communication process
- Methods of communication: Intrapersonal, Interpersonal and Mass communication; Forms of communication: written, verbal, non-verbal
- Principles of communication
- Effective communication and barriers of communication
- Understanding of Health communication and channels of health communication

Unit 2: Communication in Healthcare / Hospital Settings

- Communication in Hospital: Importance of communication in the hospital; Flow of communication in the hospital; methods & types of communication practiced in the hospital; communication network in the hospital
- Information, Education and Communication (IEC); Behavior Change Communication (BCC): definition, objectives, components, application of strategies for hospital settings
- Planning, Organization, and Co-ordination of IEC and BCC activities in hospital setting
- ICT in hospitals: Use, challenges, ICT adoption in hospital, measures to enhance ICT in health care settings, advantages of ICT, future prospects of ICT in healthcare and hospital sectors, Cloud computing
- Communication planning tools and techniques, Development of communication package in key health issue
- Communication in crisis, risk communication, breaking bad news on critical events like death in hospital
- Monitoring and evaluation of communication activities in hospitals

Unit 3: Public Relations

- Overview, public opinion & its implication on hospital
- Importance of public relation in hospital
- Public relation department of hospital, Functions of public relation department
- Press release, press conference, media relations

Practicum / Sessional:

- Seminar -2; Journal Club – 2; Group Discussion / Case Study – 1



- Hospital Departmental Posting 18 hours in the entire semester for this module

Each Seminar/JC/GD/Case study presentation lasts for 2 hours. The list of topics will be notified at the beginning of each semester. Hospital Departmental Posting 18 hours in the entire semester for this module

Text Books & Key Readings:

1. Sonu Goel, Anil Kumar Gupta and Amarjeet Singh (2014). (Editors). Hospital Administration – A Problem-Solving Approach. New Delhi: Elsevier.
2. Effective communication methods by Asha Kaul
3. Health Education by V. K. Mahajan
4. Textbook of PSM by K Park
5. Principles of Hospital Administration by S. A. Tabish
6. Human Resources Management and Industrial Relations by P. C. Tripathy
7. Oxford Textbook of Public Health 5th edition, 2009, The Practice of Public Health, Vol. 1. Author(s): Detels, Roger; Beagle hole, Robert; Lansang, Mary Ann; Gulliford, Martin. Oxford University Press (OUP), Chapters 1 & 2.

Journals:

1. Journal of Healthcare Communications
2. Journal of Health Communication

Module Code: HE61004

Credits: 03

Module Name: Health Economics and Financial Management

Learning Outcomes:

At the end of this module, the students will be able to:

1. *Understand the key concepts of economics, micro and macro economics*
2. *Understand the determinants of demand, supply and costs of production*
3. *Understand and apply the concepts of efficiency, effectiveness, equity, elasticity of demand, costing, production, marginal cost analysis, and opportunity cost*
4. *Understand the goal of Universal health coverage and the role of health care financing to achieve UHC*
5. *Apply various techniques of economic evaluation in health care*
6. *Apply basic techniques of financial management, and techniques of financial analysis and planning in health care*

Unit 1: Fundamentals of Health Economics

- Key concepts of economics, micro and macro economics
- Strategizing and prioritizing within scarce resources (decision making)
- Determinants of demand, supply, production and cost
- Concepts of efficiency, effectiveness, equity, elasticity of demand, costing, production, marginal cost analysis, and opportunity cost
- Economic concept of market, market model, competitions, monopoly, oligopoly, market failure, and the roles and limitations of markets in health care; social marketing
- Alternative Models of Hospital Behavior-Utility Maximizing Model, Physician Control Models etc.
- Universal health coverage, health care financing models, role of health care financing



- National Health Accounts
- Health care and welfare state, private versus public health care, public-private partnerships (PPP) in health care
- Concept of Insurance
- Concept and estimation of out of pocket expenses and catastrophic health expenses

Unit 2: Health Economics and Economic Evaluation

- Input and output indicators of health and their correlation with the level of economic development and with public expenditure on health
- Cost concept- short term and long -term costs, economies of scale, various types of economic evaluation used in health care, consumer impact assessment
- Principles of economic evaluation in health care: Cost analysis, Cost Benefit Analysis (CBA), Cost-Effectiveness Analysis (CEA) and Cost Utility Analysis (CUA)
- Application of cost-benefit analysis and cost-effectiveness
- Measuring health outcomes- Quality adjusted life years (QALYs), Health year equivalents (HYEs), Disability Adjusted life years (DALY)

Unit 3: Fundamentals of Financial Management

- Introduction to financial management
- Tools of financial analysis and planning in health care
- Cash flow, accounts and balancing budgets
- Working capital management, fund allocation and department performance reports
- Cost and dividends for health outcomes
- Effectiveness and efficiency
- Sustainability of Health Programs

Unit 4: Fundamentals of Management Accounting

- Accounting principles and types of accounts
- Concept of book keeping, terms used in book keeping, business transactions, theory of double entry, preparation of journal, Ledger and trial balance
- Financial Statement, Profit and Loss Account, income and expenditure account, and balance sheet

Practicum / Sessional:

- Seminar -1; Journal Club – 1; Group Discussion / Case Study – 1
- Hospital Departmental Posting 18 hours in the entire semester for this module

Each Seminar/JC/GD/Case study presentation lasts for 2 hours.

The list of topics will be notified at the beginning of each semester.

Text Books & Key Readings:

1. Nair KS. Health Economics and Financing. New Century Publications, 2019.
2. Baker JJ. Baker RW, Dworkin NR. Health Care Finance: Basic Tools for Non-financial Managers. 5th edition. Jones and Bartlett Publishers, Inc, 2017
3. Pattnaik P. Health Economics. Black Prints India Inc, 2013.
4. Raman AV, Björkman JW. Public-Private Partnerships in Health Care in India: Lessons for developing countries. Routledge, 2017.
5. Detels R, Gulliford M, Karim QA, Tan CC. Oxford Textbook of Global Public Health. 6th

edition. Oxford University Press, 2015.

- Ross KT. Practical Budgeting for Health Care: A Concise Guide. 1st edition. Bartlett Publishers, Inc, 2020.

Journals:

- Journal of Health Economics
- The Economic and Political Weekly
- International Journal of Health Economics and Management

Module Code: HO61006

Credits: 03

Module Name: Hospital Planning, Designing and Safety

Learning Outcomes:

At the end of this module, the students will be able to:

- Understand different aspects of planning and designing hospitals, and commissioning of different types of hospital including specialty hospitals and project management*
- Understand the operational aspect of the hospital industry.*
- Learn about hospital, its operations, facilities so that they can work in the areas of formulating policies, planning operational action plans and become a successful administrator.*
- The students can take up responsibilities of managing specific departments, such as admissions, or supportive roles.*

Unit 1: Introduction to Hospital Planning, Designing and Safety

- Concept and evolution of hospital planning and designing
- Principles and steps of planning:
 - Regionalization, Market survey, Need assessment and Feasibility study
 - Formation of hospital planning team
 - Site selection, survey, land acquisition
 - Financial planning
 - Architecture report, size and design of hospital, Master Plan and working drawing / design
 - Project report
- Hospital standards and design:
 - Documentation, authorities, committees
 - Accreditation, standards and Statutory requirements
 - Building requirement- Entrance & Ambulatory Zone, Diagnostic Zone, Intermediate Zone, Critical zone, Service Zone, Administrative zone; Voluntary & Mandatory standards – General standards, Mechanical standards, Electrical standards, standard for centralized medical gas system, standards for biomedical waste
- Macro level planning, conception to commissioning-site development, equipment planning, facility planning (NABH), bed distribution, space allocation, interior designing and construction of building-commissioning, tender process, shake down period
- Possibility for expansion
- Planning of 30,100,250 bedded hospital (general/specialty)

- Planning of 500, 750 and above bedded hospital (teaching/super-specialty/non-teaching specialty hospitals)

Unit 2: Hospital Planning and Designing

- Planning for various departments and services
- External architect aspects; Internal arrangements; External services
- Hospital lighting; Ventilation
- Planning for wards/nursing unit
- Landscaping in hospitals
- Waiting areas, ramps, and differently abled friendly hospital
- Equipment planning and management for a new hospital:
 - Strategic planning and selection of hospital equipment
 - Purchase procedure, installing and commissioning
 - Equipment utilization, repair and maintenance
 - Calibration of medical equipment
- Services and Utilities:
 - Water supply and Electricity and illumination
 - Sewer lines and sanitary system
 - Air-conditioning and fresh air systems (HVAC); centralized medical gas system
 - Tele-communication system
 - Transportation system and others

Unit 3: Hospital Safety

- Fire safety: Fire safety standards for hospital, Fire safety systems, Classification of fire and procedure for evacuation.
- Environmental Control and Safety
- Infection control, Radiological health, and principles of Biomedical Waste Management
- Accidental and occupational injury prevention programme for hospitals
- Hospital safety programmes
- Threat detection and Alarm systems
- Disaster preparedness
- Code blue procedures

Practicum / Sessional:

- Seminar -2; Journal Club – 2; Group Discussion / Case Study – 1
- Hospital Departmental Posting 18 hours in the entire semester for this module

Each Seminar/JC/GD/Case study presentation lasts for 2 hours. The list of topics will be notified at the beginning of each semester.

Text Books & Key Readings:

1. Principles of Hospital Management by S.A. Tabish, Jaypee Publishers
2. Hospitals and Nursing Homes Planning, Organizations and Management - 1st Edition by Tabish. Jaypee Brothers Medical Publishers
3. Sonu Goel, Anil Kumar Gupta and Amarjeet Singh (2014). (Editors). Hospital Administration – A Problem-Solving Approach. New Delhi: Elsevier.



4. Hospital Planning, WHO, Geneva, 1984.
5. Kunders G.D., Gopinath S., and Katakam A. Hospital Planning, Design and Management, Tata McGraw Hill, New Delhi, 1999

Journals:

1. Journal of Hospital Administration (JAHA)
2. Indian Journal of Research Foundation of Hospital and Healthcare Administration
3. Indian Journal of Hospital Administration

Module Code: HO61008**Credits: 03****Module Name: Materials and Supply Chain Management****Learning Outcomes:**

At the end of this module, the students will be able to:

1. Appreciate the process of material planning and inventory control
2. Critically apprise the equipment management process and their importance in hospital functioning Use managerial tools and techniques in ensuring effective and efficient supply chain of the hospital
3. Assess the material need and future demand for smooth hospital operations
4. Apply tools and techniques to ensure availability of safety stocks to prevent stock out situations

Unit 1: Material planning

- Introduction- definition, objective, Principles, Importance of, material planning
- Function of material management department- Forecasting, Planning, budgeting, scheduling purchasing, receiving, stocking & distribution, cost reduction & value analysis, liaising and disposal
- Material management cycle
- Essential in material management- Do's & Don'ts in material management
- Quality Assurance of materials
- Legal aspect of material management

Unit 2: Inventory Control

- Concept of Inventory and Inventory control
- Types of inventory control
- Tools for inventory control - ABC, VED, HML & FSN, GOLF & SOS system
- Inventory ordering system- Economic Order quantity, safety stock, reorder limit, lead time
- Storage, Condemnation and disposal

Unit 3: Supply Chain Management

- Definition & scope, Evolution of SCM, Complexity of SCM, Development of supply chain, Global optimization, Managing uncertainty and risk, Key Issues in SCM
- Policies & process for global & local procurements
- Supply chain integration, Push, pull, and push-pull systems, Demand-driven strategies, Impact of lead time



- Impact of the Internet on supply chain strategies, Supply Chain IT Innovations

Unit 4: Equipment Management

- Planning of equipment, life cycle concept, Need assessment
- Types of purchase system
- Purchase & procurement system – methods, purchase activities, purchase procedure, purchase order, effective purchasing, technical & financial bidding, evaluation of proposals, Letter of credit, Import formalities
- Equipment maintenance – down time, types of maintenance, service contracts
- Biomedical Engineering, Quality assurance of medical equipment – calibration of equipment

Practicum / Sessional:

- Seminar -1; Journal Club – 1; Group Discussion / Case Study – 1
- Hospital Departmental Posting 18 hours in the entire semester for this module

Each Seminar/JC/GD/Case study presentation lasts for 2 hours.

The list of topics will be notified at the beginning of each semester.

Text Books & Key Readings:

1. Principles of Hospital Administration by S. A. Tabish, Jaypee Brothers Publishers
2. Materials Management by Gopala Krishnan
3. Inventory Control by A. C. Dutta

Journals:

1. Journal of Hospital Administration (JAHA)
2. International Journal of Operation and Supply Chain Management

Module Code: HO61010

Credits: 03

Module Name: Management of Clinical Services

Learning Outcomes:

At the end of this module, the students will be able to:

1. *Appreciate their role in managing outpatient care services of the hospital.*
2. *Appreciate their role in managing inpatient care services of the hospital.*
3. *Appreciate their role in managing critical care services of the hospital.*
4. *Use the appropriate tools and techniques for problem solving of OPD of hospital*
5. *Use the appropriate tools and techniques for problem solving of IPD of hospital*
6. *Use the appropriate tools and techniques for problem solving of critical care units of hospital*

Unit 1: Management of Out Patient services

- Introduction, Location, services
- Importance of OPD, Types of OPD – centralized & decentralized
- Physical facilities:
 - Patient area



- Public Areas (Traffic, Main entrance, reception & information, registration & record area, non-clinical areas, - entrance hall, waiting area, public toilets & washrooms, snack bar, consultation room, specific examination room – ECG, audiometry, EEG etc, treatment & dressing room)
- Clinical Areas: Clinics of various medical discipline, medical clinic, surgical clinic, orthopedic clinic, Eye Clinics, ENT Clinic, Dental Clinic, OG Clinic, Family Planning Clinic, Pediatrics Clinic, Skin & STD clinic, Psychiatric Clinic; Ancillary Facilities – Injection room, pharmacy; Auxiliary Facilities - Lab, Radiology, Blood Bank, health education, counselling, social service, Screening Clinic, Preventive & Social Medicine - Immunization, executive checkup
- Administrative Area: Administrators' office, business office, housekeeping office,
- Circulation area
- Storage facility – Drug, linen, general stores
- Performance evaluation of OPD services – SWOT analysis
- Administration of OPD – Grievances redressal, Customer service management, Managerial Issues & Challenges, Delays & wastage of time, inadequate lab facility resulting in unnecessary harassment of patient, lack of coordination between different specialties, non-availability of medicine and inferior quality of medicines, lack of faith, restricted role of doctors, lack of leadership among hospital managers, dull & awful atmospheres outside the OPDs, great rush of patients, poor record management)

Unit 2: Management of Inpatient Services

- Introduction – location, services, type of patients, staff requirement,
- components of wards- Nursing station, treatment room, pantry, day room, stores, clean utility room, dirty utility room, isolation room, types & Shape of ward, Use of design & colors
- Classification- General, Specialty, ICU, Risk Ward
- Ward design- Nightingale ward, L ward, T wards, circular ward
- Physical Facilities – Supply of water, electricity, Auxiliary accommodation, Bath rooms & toilet, Janitor's rooms, Duty room, seminar room, side-lab room, locker room, wheelchair & trolley bay, nursing station, attendant room
- Staffs Requirements - Medical, Nursing & Support staffs
- Inpatient service Management – construction of wards, interpersonal relationships, material management, maintenance of equipment, Nurse-patient ratio, Allotment of beds in wards, attitude of staffs, dietary services, Billing & discharge
- Barriers/challenges of effective management



Unit 3: Management of Specialized services

- Accident & Emergency Clinical Services- Physical facilities & Equipment
- Super Specialty Services: Operation Theatre, Intensive Care Unit
 - Types –decentralized, multidisciplinary-centralized
 - Planning & Design Consideration – location, separate isolation room, nursing station, area allocated for patient care, beds, wall installation of equipment, adequate lighting and ventilation, temperature, relative humidity, noise level, equipment, staffing, committees, medical staff, nursing staff, policies & procedures
- Medico-legal issues
- Efficient & effective management of specialized services- Opportunities & challenges
- Disaster Preparedness of Emergency department

Practicum / Sessional:

- Seminar -2; Journal Club – 2; Group Discussion – 1; Case Study – 1
- Hospital Departmental Posting 11-12 hours in the entire semester for this module

Each Seminar/JC/GD/Case study presentation lasts for 2 hours.

The list of topics will be notified at the beginning of each semester.

Text Books & Key Readings:

1. S L Goel, R Kumar. Hospital Administration in 21st Century Hospital Core Services. Deep & Deep Publications
2. Principles of Hospital Administration by S. A. Tabish
3. Sonu Goel, Anil Kumar Gupta and Amarjeet Singh (2014). (Editors). Hospital Administration – A Problem-Solving Approach. New Delhi: Elsevier.

Journals:

1. Journal of Hospital Administration (JAHA)
2. Indian Journal of Research Foundation of Hospital and Healthcare Administration
3. Indian Journal of Hospital Administration

Module Code: HO61012

Credits: 03

Module Name: Management of Diagnostic and Support Services

Learning Outcomes:

At the end of this module, the students will be able to:

1. *Understand the concept of Diagnostic and Support services*
2. *Learn the various diagnostic and support services*
3. *Appreciate their role in managing diagnostic and support services*
4. *Apply the appropriate tools and techniques for problem solving of laboratory and imaging services of the hospital*
5. *Apply the appropriate tools and techniques for problem solving in various support service departments in hospital settings*

Unit 1: Fundamentals of Diagnostic and Support services

- Overview of diagnostic and support services
- Evolution, types of support services/diagnostic services, importance
- Global & Indian Scenario (Best Practices)

Unit 2: Diagnostic Services

- Conventional Laboratory services: Clinical laboratory service, Hematology services, Parasitology Services, Virology Services, Immunopathology services, bedside laboratory
- Role of hospital Managers in managing diagnostic services
- Imaging Services - Radio-diagnosis & imaging services, Radiation oncology services
- Newer diagnostic services: Nuclear medicine services, Experimental medicine services, Genetic laboratory services, Rapid Diagnostics.
- Operational Challenges in Diagnostic services

Unit 3: Support Services

- Linen & laundry services
- Central Sterile Supply Department (CSSD) services
- Housekeeping services, challenges, outsourcing
- Dietary & nutrition services in hospital: scope & management –purchase, storage, distribution, pilferage; clinical nutrition services, diet & hospitality services, outsourcing
- Blood bank services: Role & scope of blood bank, physical infrastructure – reception, waiting room, administrative Office, Record Keeping, Servicing rooms, Bleeding Room, Storage Room, Storage equipment; Blood safety procedures, blood collection & supply, screening, record keeping, Medico-legal aspects, Staffing, Blood donations & blood donation camps, Challenges
- Pharmacy services: Background, goals of hospital pharmacy services, management of pharmacy services, Drug & Therapeutic committee, Recent advances – Clinical pharmacy, Computerized physician order entry, Bedside barcode system, national drug code, automated dispensing cabinet, challenges
- Transport Services: means of transport within hospital, staff transport, material transport, patient transport, other transport vehicles
- Ambulance services: Types, life support system, equipping ambulance, mobile medical unit, color code of ambulance, services offered, case studies.
- Security Services, Maintenance services, Mortuary services
- Operational Challenges in Support Services Examples: integrating support services to core services

Practicum / Sessional:

- Seminar -2; Journal Club – 2; Group Discussion – 1; Case Study – 1
- Hospital Departmental Posting 11-12 hours in the entire semester for this module

Each Seminar/JC/GD/Case study presentation lasts for 2 hours.

The list of topics will be notified at the beginning of each semester.

Text Books & Key Readings:

1. S L Goel, R Kumar. Hospital Administration in 21st Century Hospital Core Services
2. Principles of Hospital Administration by S. A. Tabish, Jaypee Brothers Publishers
3. Sonu Goel, Anil Kumar Gupta and Amarjeet Singh (2014). (Editors). Hospital Administration – A Problem-Solving Approach. New Delhi: Elsevier.

Journals:

1. Journal of Hospital Administration (JAHA)

2. Indian Journal of Research Foundation of Hospital and Healthcare Administration
3. Indian Journal of Hospital Administration.

Module Code: HO68002

Credits: 02

Hospital Posting and Seminar

Objectives of Hospital Posting: Get hands-on experience and exposure to the practical dimensions of all that was covered in theory classes.

Expected Outcomes: Hands-on exposure

SEMESTER III

Module Code: HO71001

Credits: 03

Module Name: Law and Ethics in Hospitals

Learning Outcomes:

At the end of this module, the students will be able to:

1. *Enlist the Indian laws applicable to health and healthcare settings*
2. *Discuss various medico-legal and ethical issues of a hospital*
3. *Manage the documentation and reporting of medico-legal cases in the hospital*
4. *Assess the hospital's obligations to fulfil patient's rights*
5. *Apply medico-legal knowledge to comply with the applicable hospital regulatory norms*
6. *Formulate hospital legal and ethical policy based on the prevailing local, national, and international environment*

Unit 1: Introduction to Medico-legal Issues in Hospitals

- Need vs Rights, right-based health, health as a human right, international and constitutional perspective on the health of people, Introduction to the Indian legislative system and judicial system, Medicine & law,
- International health regulations, Global health hazards and security, Public Health laws in the global economy
- Medico-Legal Problems in relation to health administration (medical & labor laws), Medical-legal functions of the hospital - Medico-legal report, Postmortem report, issue of medical certificate

Unit 2: Laws Applicable to Hospitals

- Clinical Establishment Act, Laws pertaining to establishment & licensing of diagnostic & laboratory services, Birth & Death registration, reporting of health events, etc.;
- Regulation of Pharmaceutical Industry: Drugs and Cosmetics Act, 1940 etc. Clinical Trial & Patient Safety, International Health Legislations, Infectious Disease Notification, The Epidemic Diseases Act, 1925, Disaster management act, 2005
- Biomedical Waste (Management & Handling) Rules, 1998, PCPNDT Act, 1994, Transplantation of Human Organs Act, 1994, laws related to radiological safety
- Right to Information Act, 2005, Consumer Protection Act, 1986

Unit 3: Patients' right in a hospital

- Right to health, Health as a Human Right, Indian legal system, citizen charter, Provision of service during Emergency, Patient safety and quality, patients' right in treatment-related decision making
- Medical Negligence: Liability of Doctors and Hospital for Medical negligence, Liability of doctors under the Law of Torts and Consumer Protection Act, Liability for the use of Medical devices, Criminal liability of Doctors

Unit 4: Ethical Issues in Hospitals

- Ethical Principles: confidentiality, autonomy, non-maleficence, beneficence, justice, fairness, truthfulness)
- Application of ethics in healthcare, identifying and clarifying ethical dilemma, analyzing alternative courses of action and its consequences, Resolving the dilemma by choosing best course of action,
- Ethics in clinical trials, drug trials,
- Professional etiquette
- Patients' responsibility in hospital

Text Books & Key Readings:

1. Law and Medical Profession by Eastern Law Book Co.
2. National Health Programs of India: National policies and legislation related to health, by Jugal Kishore. Century Publications.

Module Code: HO71003

Credits: 03

Module Name: Hospital Management Information System

Learning Outcomes:

At the end of this module, the students will be able to:

1. *Appreciate the importance of medical record in patient care and associated medico legal aspects*
2. *Enlist the general components of medical record*
3. *Describe the paper based and electronic medical record (EMR)*
4. *Apply tools and techniques for systematic collection of information from a patient's medical record for assessment and evaluation*
5. *Apply tools and techniques to conduct clinical audit in the hospital*

Unit 1: Introduction to Medical Records

- Introduction, Importance, contents of medical records, characteristics of an ideal medical records
- Process flow of Medical records
- Formats & charts of MR - case sheets, nursing chart, discharge notes, referral notes
- Generation of hospital statistics from medical records
- Electronic medical records & Health electronic record

Unit 2: Organization of Medical records department

- Structure & function



- Methods & basis of record keeping- Paper based & Electronic based,
- Quality Assurance of Medical Records, Audit of Medical Records
- Legal aspects - confidentiality of medical records, Medico legal issues,
- Challenges of medical records department- storing, record retention, record retrieval, Condemnation & disposal
- Common problems associated with medical records

Unit 3: Medical records & Clinical Audit

- Introduction to clinical audit - Need, Scope, types, criteria
- Role & Importance of Medical records in clinical audits

Unit 4: MIS in Hospitals

- MIS – Introduction and evolution of hospital MIS
- Components of MIS- real-time medical record keeping by MIS, MIS analysis
- Types of hospital MIS- Patient based/ Organization based MIS
- MIS as a tool for managerial control, advantages & disadvantages of hospital MIS, planning & implementation of MIS in hospitals

Practicum / Sessional:

- Seminar -2; Journal Club – 2; Group Discussion-1; Case Study – 1
- Hospital Departmental Posting 18 hours in the entire semester for this module

Each Seminar/JC/GD/Case study presentation lasts for 2 hours.

The list of topics will be notified at the beginning of each semester.

Text Books & Key Readings:

1. Principles of Hospital Administration by S. A. Tabish
2. Sonu Goel, Anil Kumar Gupta and Amarjeet Singh (2014). (Editors). Hospital Administration – A Problem-Solving Approach. New Delhi: Elsevier.

Journals:

1. Medical Reports & Case Studies
2. International Journal of Medical Informatics

Module Code: HO71005

Credits: 03

Module Name: Hospital Infection Control and Waste Management

Learning Outcomes:

At the end of this module, the students will be able to:

1. *Understand hospital-acquired infection and its prevention*
2. *Understand the concept and importance of Universal Precautions*
3. *Apply tools and techniques to address occupational safety issues in a hospital setup*
4. *Appreciate the significance of Biomedical Waste management and its safe disposal.*
5. *Enlist the best practices in the field of hospital infection prevention and control*
6. *Apply universal standards and precautions in hospital settings*

Unit 1: Hospital Associated Infection (HAI)

- Overview, Definition, Types of HAI, why it is important to address HAI, Factors responsible for HAI, types of HAIs

- Organizational structure of infection control department – Functions, Hospital infection control committee – Composition, role of physicians, microbiologists, nursing staffs, other members
- Infection control manual

Unit 2: Occupational safety

- Health & safety issues in healthcare settings
- Economic benefit & value of occupational health & safety
- Comprehensive approach for patient & worker safety - risk assessment, exposure of various categories of hospital staffs to hazards, prevention of hazards specific to health sector – Biological, Blood borne pathogens, sharp injury, Injection Safety, chemical, physical, psychosocial, miscellaneous – fire, electrocution, radiation.

Unit 3: Infection prevention and control methods and safety practice

- Universal precautions (hand hygiene, use of personal protection equipment)
- Vaccination of health staffs
- Transmission based precautions
- Hygiene and sanitation
- preventions of injuries from sharps
- Injection safety (needle stick injury)
- Prevention and control of anti-microbial resistance
- Safe handling of BMW, response to injury & exposure, cytotoxic chemical exposure, post exposure prophylaxis

Unit 4: Biomedical Waste Management

- Introduction, types & composition of biomedical wastes
- Regulatory authority (CPCB) and set norms for BMW management
- Systematic BMW disposal- Segregation, collection, transportation, disposal
- Management & methods of disinfection, Modern technology for handling BMW
- Monitoring & controlling of cross infection (Protective devices)
- BMW from Administrative point of view (Budget, Health check-up, Insurance)

Unit 5: Radioactive waste

- Basic concepts, Classification of radioactive waste, Implications, Management of radioactive waste in hospitals
- Regulatory bodies - International Commission on Radiological Protection (ICRP) Sweden, Atomic Energy Regulatory Board (AERB) of India
- Record keeping, Role of Radiation safety officer

Practicum / Sessional:

- Seminar -2; Journal Club – 2; Group Discussion-1; Case Study – 1
- Hospital Departmental Posting 18 hours in the entire semester for this module

Each Seminar/JC/GD/Case study presentation lasts for 2 hours. The list of topics will be notified at the beginning of each semester.

Text Books & Key Readings:

1. Essentials of Hospital Infection Control by Apurba S Sastry Jaypee Brothers Medical Publishers (P) Ltd.
2. Bio-Medical Waste Act & Rules Govt. of India
3. Current Issues in BMW Waste Handling-ISHA, Bangalore
4. BMW management by J Kishore, Century Publications
5. Hospital Waste Management: Principles and Guidelines by Mohd Faisal Khan, Kanishka Publishers

Journals:

1. Khan S, Syed AT, Ahmad R, Rather TA, Ajaz M, Jan FA (2010). Radioactive waste management in a hospital. International Journal of Health Sciences, 4(1): 43-51.
2. Journal of Waste management & research (Sage Publication)
3. Journal of Hospital Infection
4. Journal of Patient Safety and Infection Control.

Module Code: HO71007

Credits: 03

Module Name: Strategic Management and Marketing Management in Hospitals

Learning Outcomes:

At the end of this module, the students will be able to:

1. *Recognize importance of strategic management and marketing management in hospitals*
2. *Understand about the hospital marketing services and strategic management*
3. *Create marketing activities for stakeholder engagement*
4. *Apply the principles of brand positioning in hospitals*
5. *Manage hospital marketing services and managing hospital departments*

Unit 1: Introduction to Marketing Management

- Concept, definition and scope of marketing
- Concept of Goods & Services
- Marketing principles and processes, Market analysis
- Consumer behavior, Customer relationship management
- Product and pricing strategies, pricing of services
- Service Marketing, Business development
- Market segmentation, targeting and product positioning
- Corporate marketing, Advertisement, branding and marketing promotional activities
- Social Marketing and marketing ethics

Unit 2: Market Research

- Introduction to marketing research
- Market information system, Market decision support systems
- Demand forecasting
- Market research process
- Marketing Implementation and control

Unit 3: Fundamentals of Strategic Management

- Strategic Management Process
- Situational and environmental analysis in health sector
- SWOT analysis; PEST analysis
- Organizational analysis: Financial, Marketing, Operational, Personnel, and General Management
- Functional Strategy analysis: Plans and policies, Financial, Marketing, Operational, Personnel, Information Technology and Integration
- Strategy formulation and strategy implementation
- Strategic alternatives and choices
- Strategic and operational control
- Strategic Marketing Management for Services: Matching Demand and Supply through Capacity Planning and Segmentation, Role of HR & Internal Marketing of a Service, External versus Internal Orientation of Service Strategy.
- Value chain concept
- Management ethics and social objectives and responsibilities of management
- Corporate social responsibility, hospitals and social responsibility

Practicum / Sessional:

- Seminar -2; Journal Club – 2; Group Discussion-1; Case Study – 1
- Hospital Departmental Posting 18 hours in the entire semester for this module

Each Seminar/JC/GD/Case study presentation lasts for 2 hours. The list of topics will be notified at the beginning of each semester.

Text Books & Key Readings:

1. Kotler Philip, Marketing Management (Millennium Edition), PH1, New Delhi, 2001.
2. Srinivasan.R, Services Marketing (The Indian context), Prentice- Hall India, New Delhi.
3. Advertising Management - S. Krishnan
4. Srivastava; Management Policy and Strategic Management; Himalaya Publications, Mumbai.
5. Kazhmi, Business Policy and strategic management, Tata Mc Graw Hill, New Delhi, 2002.

Journals:

1. Journal of Hospital Administration (JAHA)
2. Journal of Hospital Marketing & Public Relations

Module Code: HO71009

Credits: 03

Module Name: Quality Management in Healthcare and Hospitals

Learning Outcomes:

At the end of this module, the students will be able to:

1. *Describe different quality concepts and frameworks of quality management*
2. *Enumerate the dimensions of service quality*
3. *Understand the contribution of quality Gurus and their philosophies in quality management*
4. *Apply different quality assessment tools for the assessment and evaluation of hospital services*

5. *Understand the concept of patient safety and patient satisfaction*
6. *Apply tools and techniques to assess patient satisfaction*

Unit 1: Fundamentals of Quality Management

- Introduction - concept of quality care, evolution of quality in healthcare and perspectives of quality
- Dimensions of quality; Understanding quality management
- Principles of quality management; Role of a quality manager

Unit 2: Quality Assurance Programme

- Evolution of quality assurance in India
- Philosophy of Quality Management - Deming's Principles, Juran Trilogy, Kaizen approach, Philip Crosby's Principles
- Six-sigma and its role in healthcare, LEAN thinking
- Quality Improvement tools – Ishikawa's cause-and-effect, Pareto analysis, Checklist, Benchmarking, affinity diagrams, failure mode & effect analysis, Quality Circle
- Triggers of quality improvement
- Quality and Patient Safety – Concept of Patient safety, International patient safety goals, improving patient safety using quality improvement tools

Unit 3: Quality, Patient Safety and Patient Satisfaction

- Concept of patient safety; International patient safety goals
- Improving patient safety using quality improvement tools; Medication safety
- Overview and factors influencing patient satisfaction
- Assessment of patient satisfaction

Unit 4: Performance Management and Evaluation of Quality in Healthcare

- Standards and Indicators (what, importance, how to develop)
- International and Indian standards - ISO clauses, NABL, NABH, JCI, IPHS, BIS, etc.
- Quality indicators of a hospital – agency for Health Care Research & Quality (AHRQ) indicators, Joint Commission International (JCI) standards – patient care based, Organization based standards
- Evaluation of Quality and Patient safety - reducing medication errors in hospitals, audit and continuous quality improvement
- Challenges in improving quality and solutions to ensure quality in hospitals.

Practicum / Sessional:

- Seminar -2; Journal Club – 2; Group Discussion-1; Case Study – 1
- Hospital Departmental Posting 18 hours in the entire semester for this module

Each Seminar/JC/GD/Case study presentation lasts for 2 hours. The list of topics will be notified at the beginning of each semester.

Text Books & Key Readings:

1. Principles of Hospital Administration by S. A. Tabish
2. Total Quality Management by Aswathappa (Himalaya Books House)
3. Quality Management by Barnett (Pitman Publishing)



4. Quality Management: Tools, Methods and Standards- Guido Orzes, Marco Sartor.2019. Emerald Publishing Limited.

Journals:

1. Journal of Hospital Administration (JAHA)
2. Quality Management in Health Care (QMHC)
3. The International Journal for Quality in Health Care (IJQHC)
4. The Joint Commission Journal on Quality and Patient Safety

Special Tracks

Code: HE74101

Credits: 06

Special Track: Implementation Science and Operations Research

Learning Outcomes:

By the end of this course, the students will be able to:

1. *Recognize various factors that influence implementation of a programme*
2. *Design monitoring and evaluation tools for implementation of projects/programmes*
3. *Apply principles of research in conducting implementation research*
4. *Develop concept notes on implementing innovations in health and healthcare*
5. *Understand the quantitative methods and modern management techniques as applicable in health care settings as a tool to systems development and managerial control*
6. *Apply principles of operations research for optimum resource utilization*
7. *Apply important analytical tools and techniques of operations research in healthcare settings*

Unit 1: Basic Concepts of Implementation Science

- Definition of implementation science
- Domains of implementation
- Types and categories of implementation
- Consolidated framework for implementation research (CFIR)
- Role of health systems preparedness
- Implementation of evidence-based practices, programmes, or policies in healthcare

Unit 2: Theories and Model of Change and Implications

- Theory of change
- Designing implementation strategies
- Models of implementation and best practices
- Theories, models and frameworks
- Strategies and methods of evaluation

Unit 3: Emerging Trends in Implementation Research

- Emerging trends in implementation research
- Opportunities and challenges
- Health equity in implementation science
- Costs in implementation
- Information management systems in implementation

Unit 4: Fundamentals of Operations Research

- Evolution of Operations Research
- Formulation of models and using models for problem solving
- Limitations of Operations Research
- Recent developments in Operations Research
- Application of Operations Research in the field of health care

Unit 5: Operations Research Techniques

- Linear Programming Problems
- Network Analysis: PERT, CPM and Shortest Rout Algorithm
- Decision Tree Analysis
- Game theory
- Queuing theory
- Management by objective and management by result

Practical:

- Document Review
- Research Framework and Proposal Development
- Field visit

Text Books & Key Readings:

1. Oxford Textbook of Global Public Health, edited by Roger Detels, Quarraisha Abdool Karim, Fran Baum, Liming Li, and Alastair H. Leyland. Oxford University Press, 2021.
2. Practical Implementation Science: Moving Evidence Into Action, edited by Weinger Bryan J, Lewis Cara C, Sherr Kenneth. Springer Publishing.
3. Implementation Science 3.0. Editors: Aron Shlonsky, Bianca Albers, Robyn Mildon. 2020. Springer International Publishing
4. National Implementation Research Network. (2013). Active Implementation Hub. from <http://implementation.fpg.unc.edu/>
5. Nilsen, P. (2015). Making sense of implementation theories, models and frameworks. *Implement Sci*, 10, 53. doi: 10.1186/s13012-015-0242-0
6. Bauer, Mark S., and JoAnn Kirchner. "Implementation Science: What Is It and Why Should I Care?" *Psychiatry Research* 283 (January 2020): 112376. <https://doi.org/10.1016/j.psychres.2019.04.025>.
7. Bauer, Mark S., Laura Damschroder, Hildi Hagedorn, Jeffrey Smith, and Amy M. Kilbourne. "An Introduction to Implementation Science for the Non-Specialist." *BMC Psychology* 3, no. 1 (December 16, 2015): 32. <https://doi.org/10.1186/s40359-015-0089-9>.
8. Kothari C R. *Research Methodology Methods & Techniques*. New Age International Private Ltd., New Delhi:2000
9. Dharani Venkatakrishnan S. *Operations Research Principles and Problems*. Keerthi Publishing House, Coimbatore



Code: HE74201

Credits: 06

Special Track Name: Technology in Health and Health Informatics

Learning Outcomes:

By the end of this course, the students will be able to:

- 1. Critically appreciate the drivers and enablers of digital innovation in health and health care.*
- 2. Develop understanding of the barriers and challenges associated with digital innovation in health and health care settings.*
- 3. Recognize and assess the importance of ethics and risks associated with the use of digital technology in health.*
- 4. Evaluate technological solutions in health and healthcare settings through health technology assessment*
- 5. Develop strategies for implementation of digital health technology solutions project in real life settings.*
- 6. Reflect the changes that are happening in public health practice and professional accountability.*

Unit 1: Introduction to Technology in Health

- eHealth Systems, Standards, and Digital Services: healthcare information systems, electronic health records, personal health records, other digital services, and learning healthcare systems, cases studies on digital health interventions
- Digital health transformation: cultural, structural, and technology dynamics of transformation within organisations
- Bio-Medical Technology and its application in hospital environment
- Digital health research design: identify, understand, find and appraise scientifically valid evidence; an appreciation of the scientific discipline and rigour involved in creating and applying evidence; and the value of scientific research.
- Digital health and wellbeing: design, architecture, governance, interoperability, management, adaptability, personalization, evaluation and maintenance of such systems

Unit 2: Health Technology Assessment

- Health technology assessment (HTA); components of HTA, advantages and disadvantages of technological solutions; efficiency and effectiveness analysis of HTA in Indian context, hospital settings and healthcare organizations.
- Data science and AI in healthcare: application of big data analytics techniques and artificial intelligence (AI)/machine learning techniques in healthcare.
- Digital health mission: components, progress and future

Unit 3: Fundamentals of Healthcare Informatics

- Introduction to healthcare informatics, characteristics, framework, evolution and recent developments
- Technical, social and ethical considerations in healthcare informatics
- Issue and challenges in healthcare informatics



- Best practices and multidisciplinary approach to healthcare informatics
- Scope of healthcare informatics interventions
- Healthcare informatics solutions for decision support
- Application of data science techniques in healthcare informatics

Practical:

- Case studies of bigdata analytics in healthcare
- Applying Data Science techniques for decisions support in healthcare sector

Text Books & Key Readings:

1. Cook, A.M. & Polgar, J.M. (2015). Essentials of Assistive Technologies (4th edition). St Louis: Elsevier Mosby.
2. Fong, B., Fong, A.C.M. & Li, C.K. (2014). Telemedicine Technologies: Information Technologies in Medicine and Telehealth. Wiley on-line library.
3. Moss Richins, S. (2015). Emerging Technologies in Healthcare. Boca Raton: Productivity Press.
4. Information Technology for the Health Professions By Lillian Burke, Barbara Weill. 2013. Pearson Education
5. Adaptive Health Management Information Systems-Concepts, Cases, and Practical Applications-By Joseph K. H. Tan. 2019. Jones & Bartlett Learning
6. Big Data and Health Analytics. 2014 Springer International Publishing
7. Health Informatics-Practical Guide. Robert E. Hoyt, William R. Hersh. 2018. Informatics Education
8. Artificial Intelligence in Healthcare- Adam Bohr, Kaveh Memarzadeh. 2020 Elsevier Science
9. Data Science and Medical Informatics in Healthcare Technologies- By Nguyen Thi Dieu Linh, Zhongyu (Joan) Lu. Springer Nature 2021
10. Digital health mission. Government of India. 2022

Journals:

1. Journal of Digital Health
2. Journal of Telemedicine and Telecare

Code: HE74301**Credits: 06****Special Track Name: Health Insurance and Risk Management**

By the end of this course, the students will be able to:

1. *Understand about health insurance and its applications*
2. *Learn principles of health insurance to develop insurance products*
3. *Apply the tools for assessment of health risks of individuals*
4. *Engage with stakeholders involved in providing cash-less service to patients*
5. *Create suitable policy prescriptions for insurance coverage and risk mitigation*
6. *Assess work profile and challenges of Third-Party Administrators*

Unit 1: Introduction to Health Insurance

- History, recent trends and reforms in health insurance
- Concept of Health insurance and risk pooling

- Principles and models of Health Insurance
- Health Insurance products and product design
- Development and Evaluation of health insurance
- Health insurance versus health assurance
- Public funded and private funded insurance models
- Regulation of health insurance
- Recent developments in health insurance in developed and developing countries

Unit 2: Operations and Management of Health Insurance

- Risk assessment, production, premium setting, tax planning, underwriting, rate making, claims management, settlement, nature of claims from various classes of insurance
- Investment, financing and financial management of Health Insurance
- Accounting and Record Keeping
- Marketing and servicing of health insurance: elements of insurance marketing, uniqueness of insurance markets, distribution, selling insurance, agents and brokers professionalism, remuneration, responsibilities, classification, appointment and capital adequacy norms for broker
- Role of regulatory authority in supervising promotional activities, IRDA and legal framework in Health Insurance and ethical issues
- Third Party Administrators
- Applications of information technology in health insurance
- Government's role in health insurance: need for government intervention in- price controls, prevention and control of monopoly, protection of consumers' interest, economic liberalization, disinvestment

Unit 3: Forms of Health Insurance in India

- Social Health Insurance and non-profit social insurance scheme in India
- Mandatory health insurance schemes and provident fund
- Central Government Health Schemes (CGHS) and Employee and State Insurance Schemes (ESIS), Health insurance initiatives by the state government
- Actuarial Insurance and Employer based Scheme
- Voluntary health insurance schemes or private-for-profit schemes
- Case studies – BSKY, PM-JAY, DR YSR Arogyasri etc.
- Micro insurance in India

Text Books & Key Readings:

1. Dwivedi, D.N.: Micro Economic Theory, Vikas Publications, New Delh, 1996.
2. James Henderson: Health Economics and policy – South Western College publishing, International Thamson Publishing, USA 1999.
3. Kenneth Black,Jr. Harold D.Skipper,Jr, Lire and Health Insurance, thirteenth edition, Pearson Education Pte. Ltd., Delhi, 2003.
4. Principles Of Insurance Management: A Special Focus On Developments In Indian Insurance Sector Pre And Post Liberalisation-By Neelam C. Gulati. 2009. Excel Books
5. Insurance Chronicle, ICFAI Publications, Hyderabad.



6. National Insurance - Monographs on Insurance Management Programme documents of PM-JAY, BSKY, and DR YSR Arogyasri
7. UNDP: Human Development report (recent three Years)
8. IRDA Guidelines on Health Insurance - Govt. of India
9. Provident Fund Act 1952
10. Employees State Insurance Act 1948

Module Code: HO78001

Credits: 02

Hospital Posting and Seminar

Objectives of Hospital Posting: To get practical hands-on exposure on all that has been learnt during theoretical sessions.

Expected Outcomes: Practice, exposure and hands-on training

SEMESTER IV

Module Code: HO77002

Credits: 12

Project Work

Learning Objectives:

Each candidate is required to carry out a limited-scope project work on the functioning of a hospital, under the mentorship of a allotted guide from the KSPH or as decided by the Director of the School. A co-guide can be opted wherever required with prior approval of the Director. The report shall be submitted in the form of a project work of not less than 10000 words for evaluation. A manuscript based on the project work is to be submitted to an indexed journal for publication. Each candidate will conceptualize and finalize the project topic well in advance through consultation, discussion, presentation and literature review.

The project work is aimed at skilling postgraduate students in research methodology and techniques. It includes identification of the problem, formulation of a hypothesis, review of literature, getting acquainted with recent advances, designing of a research study, collection of data, analysis and comparison of results and drawing conclusions. A project work based on secondary data analysis may be considered for international students with prior approval of the Director, KSPH.

Technical Review and Ethical Review:

Each proposal needs to be submitted for technical and ethical clearance (wherever necessary) before data collection begins.

Submission of the Project Work Report:

The project work complete in all respects and duly certified by the Guide, Co-Guide and Head/Director will be submitted to the School which will be then forwarded to the External Examiner for evaluation.



Module Code: HO78002

Credits: 06

Internship

The MHA student will undergo internship(s) at any reputed local, national or international hospital of their choice to acquire practical experience in Hospital Administration. He/she will be assigned a local supervisor from the hospital/organization of posting. At the end of the internship period, an internship report of not less than 10000 words comprising of (a) diary (log book) duly signed by the local supervisor from the organization; (b) internship report; and (c) attendance sheet duly signed by the local supervisor will be submitted to the allotted guide and finally to Head of the School.

KIIT School of Public Health
Kalinga Institute of Industrial Technology (KIIT)
Deemed to be University
Bhubaneswar, Odisha, India

