



**National Commission for Allied and Healthcare
Professions**

COMPETENCY BASED CURRICULUM

for

“Health Information Management”



As per the NCAHP Act -2021

APPROVED SYLLABUS 2025

Ministry of Health & Family Welfare

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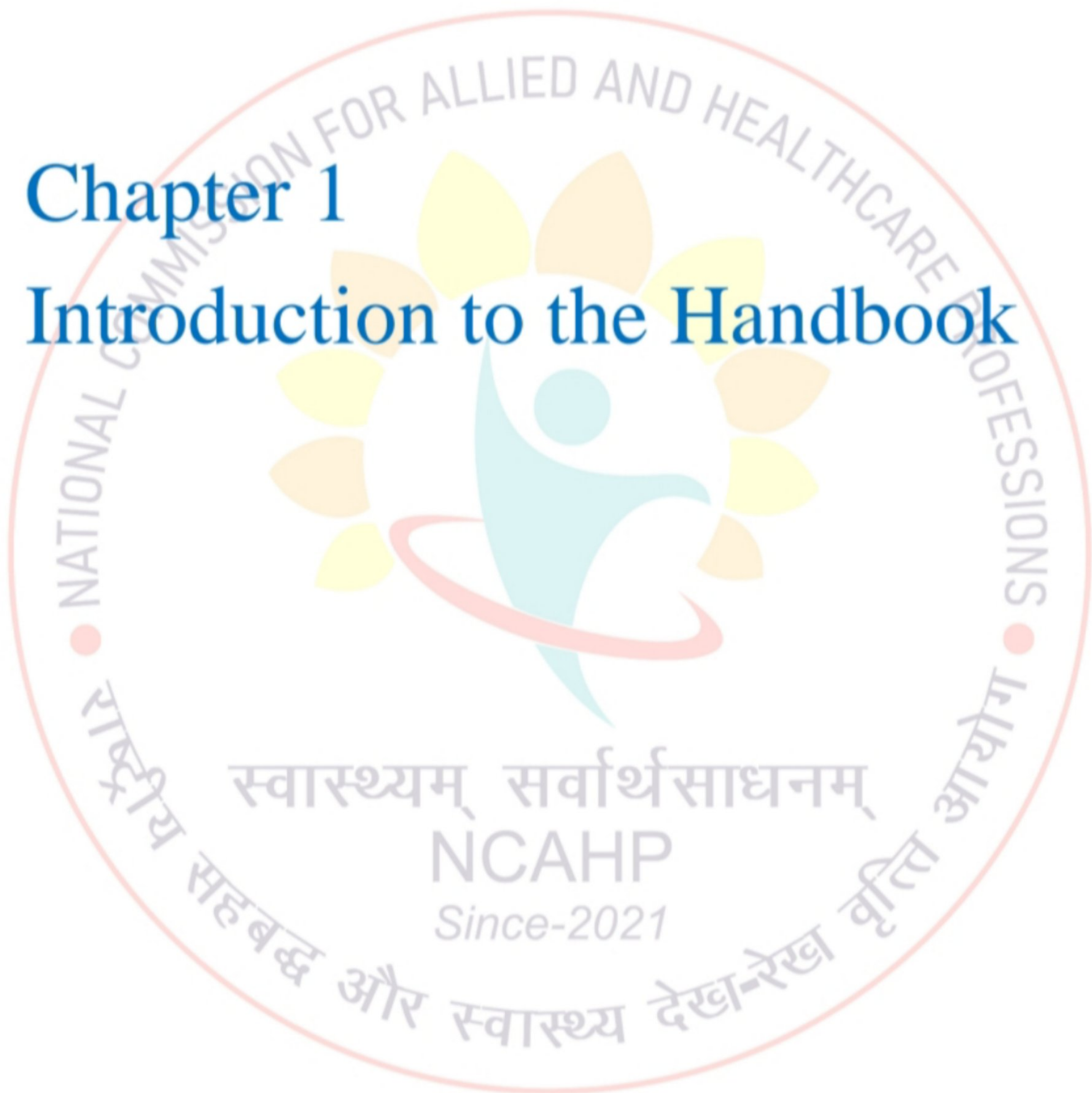
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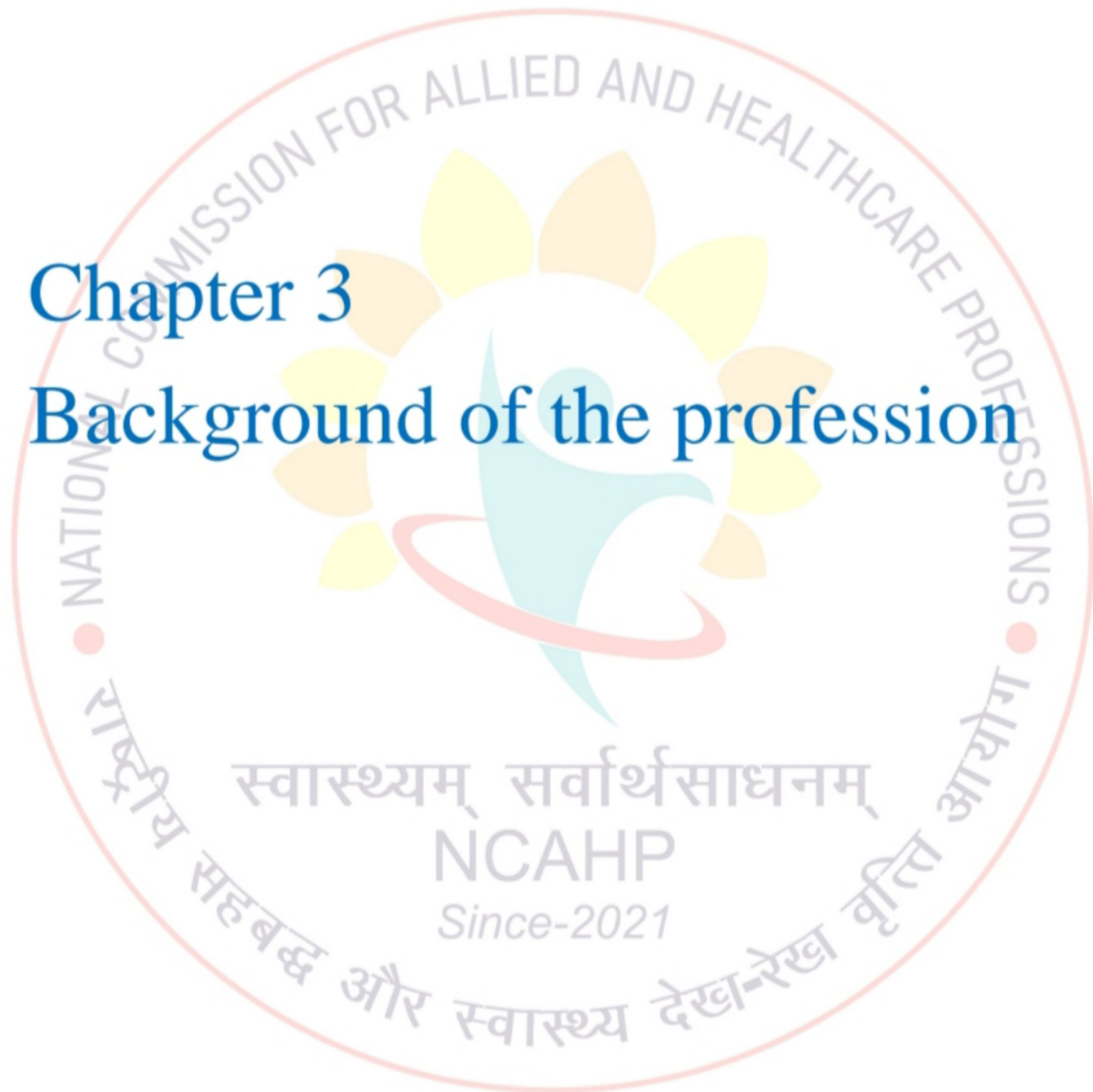
Chapter 1

Introduction to the Handbook



Chapter 3

Background of the profession



Chapter 3: Background of the profession

Statement of Philosophy– Why this profession holds so much importance?

A Health Information Management (HIM) Professional is one of the key positions in a healthcare organization responsible for management of various health related information of patient generated within the healthcare system. HIM involves maintaining, collecting, analysing protecting and disseminating traditional and digital medical information essential for delivery of quality care. The World Health Organization stated that the proper collection, management and use of information within the healthcare systems will determine the system's effectiveness in detecting health problems, defining priorities, identifying innovative solutions and allocating resources to improve health outcomes.

About Health Information Management

Health Information Management covers a broad spectrum of information pertaining to health of the people generated within or outside a healthcare system. Every day, tens of thousands of people across the country visits various healthcare facilities, and these facilities generate huge volume of information pertaining to people health. The majority of healthcare data of a person is captured in a medical record digitally or manually maintained and this includes a wide range of information such as socio-demographic details, family history, past and present illness, physical findings, investigation reports, diagnosis, treatment, medication, etc. Proper management of such vital health information is crucial for patient and physician for continuity of care as well as beneficial for different purposes: health insurance, statistics, research, healthcare administration, policy formulation, public health management, medico-legal cases etc.

Scope of practice

A Health Information Management professional responsibility cover the collection, storage, analysis and dissemination of healthcare information within the healthcare system. HIM personnel's in a healthcare setting would ensure the accuracy and timeliness of patient data for the continuity of quality care. The HIM professionals are essential for all healthcare setting to generate reports and records about patient care, design and manage health information systems, maintain security and legal aspects of patient records and establishing appropriate procedures to protect patient data. A well trained and skilled HIM professionals would be able to take up various challenging positions in public and private hospitals, public health services, health insurance sector, healthcare IT & research organizations and education institutions.

Recognition of Title and qualification

Within the healthcare team, the person responsible for collecting and managing a patient's information for efficient care is the HIM professional, also earlier referred to as a medical record keeper. However, HIM is the internationally accepted nomenclature for the profession.

The recommended title thus stands as the Health Information Management (HIM) professional for this group.

It is a known fact that with the career advancement the nomenclature will also vary and will also depend on the sector and profile of the professional. Thus the taskforce has provided the following nomenclature table to map the career pathways and progression in different sectors of professional practice for HIM professionals. The table also indicates the corresponding level of qualification with experience required by the professional to fulfil the requirements of each level.



Definition of Health Information Management Professional

A Health Information Management (HIM) Professional highly trained professionals maintains the medical records and clinical information of patients in a manner consistent with medical, administrative, ethical, legal, and regulatory requirements of the health care system. HIM professionals understand the clinical workflow of different healthcare settings and ensure the patient health information is complete, accurate and protected²². HIM professionals are responsible for the quality, integrity, security, and protection of patient's health information in manual as well as digital forms. HIM professionals often work as a bridge connecting clinical, operational, and administrative functions within the healthcare system²⁴. HIM professionals play vital role in the integration of information technology and digital health solutions for the effective use of healthcare data.

Education

When developing any educational Program, it is necessary that it should be planned such that it is outcome-based, and it meets not just the local and national manpower requirements, but also provides personal satisfaction and career potential for professionals with supporting pathways for their development. One of the major changes is the paradigm shift of the focus from traditional theoretical knowledge to one on skills- and competency-based education and training²⁴. Optimal education/training requires that the student is able to integrate knowledge, skills and attitude in order to be able to perform a professional act adequately in a given situation. Thus the following curriculum has been designed accordingly in a prescriptive fashion, with an aim to standardize the content across the nation.

The student would follow the path of a diploma, a bachelors' and a masters' degree to practice in this field.

Entry requirements

It is recommended that the students entering this Program should have completed the recognized secondary school studies as the qualification stipulated for the Health Information Management program (diploma/degree), i.e. **10+2 or equivalent examination with PCB/PCMB** from a recognized university or board which would provide the foundation for and prepare them for higher education studies.

Job availability

As per the ILO documentation, employers worldwide are not looking for job applicants who can only apply technical skills in the workplace, but for those who can also communicate effectively, including with customers; can work in teams, with good interpersonal skills; can solve problems; have good ICT skills; are willing and able to learn; and are flexible in their approach to work.²⁴

Graduates can expect to be employed in hospitals as Health Information Management Technologists and Health Information Management Officers.



Chapter 4: Model Curriculum

Background

Information is the life blood of health care delivery system. The medical record, in manual or automated form, houses the medical information that describes all aspects of patient care. Physicians, nurses, and other health care providers require medical information for treating a patient. The medical record serves as a communication link among care-givers. Documentation in the medical record also serves to protect the legal interests of the patient, health care provider, and health care facility. A Health Information Management (HIM) Professional is one of the key positions in a healthcare organization responsible for management of various health related information of patient generated within the healthcare system. HIM involves maintaining, collecting, analysing protecting and disseminating traditional and digital medical information essential for delivery of quality care. The World Health Organization stated that the proper collection, management and use of information within the healthcare systems will determine the system's effectiveness in detecting health problems, defining priorities, identifying innovative solutions and allocating resources to improve health outcomes.

The aim of the recommended curriculum is to produce HIM professionals who understand the:

- Definition and characteristics of good Health Information
- Values of 'Good' Medical Record/Health Information to various users
- Required Characteristics of entries in medical Records
- Responsibility for Medical Record/ Health Information Quality
- Application of IT in the management of clinical and healthcare data.
- Integration of digital health solutions for the better management and use of health information.

They should be able to manage:

- Evaluate knowledge of practice relevant to health information management.
- Work collaboratively with other health care professionals to achieve a quality service.
- Enable health care organizations for better management of patient information
- Support health care administrators in routine activities
- Apply the knowledge obtained in specialized areas effectively in the health care system.
- Use interpersonal skills to facilitate effective communication with various health care professionals
- Develop health information standards, according to the health care requirements
- Uphold legal, ethical standards of Health Information
- Utilization of data analytics, interoperability, and information governance to improve healthcare outcomes on a systemic level.

- Interoperability, population health analytics, and compliance with regulatory requirements to protect patient privacy and confidentiality.
- The benefits data science and artificial intelligence for predictive analytics, personalized medicine, and more effective population health management.

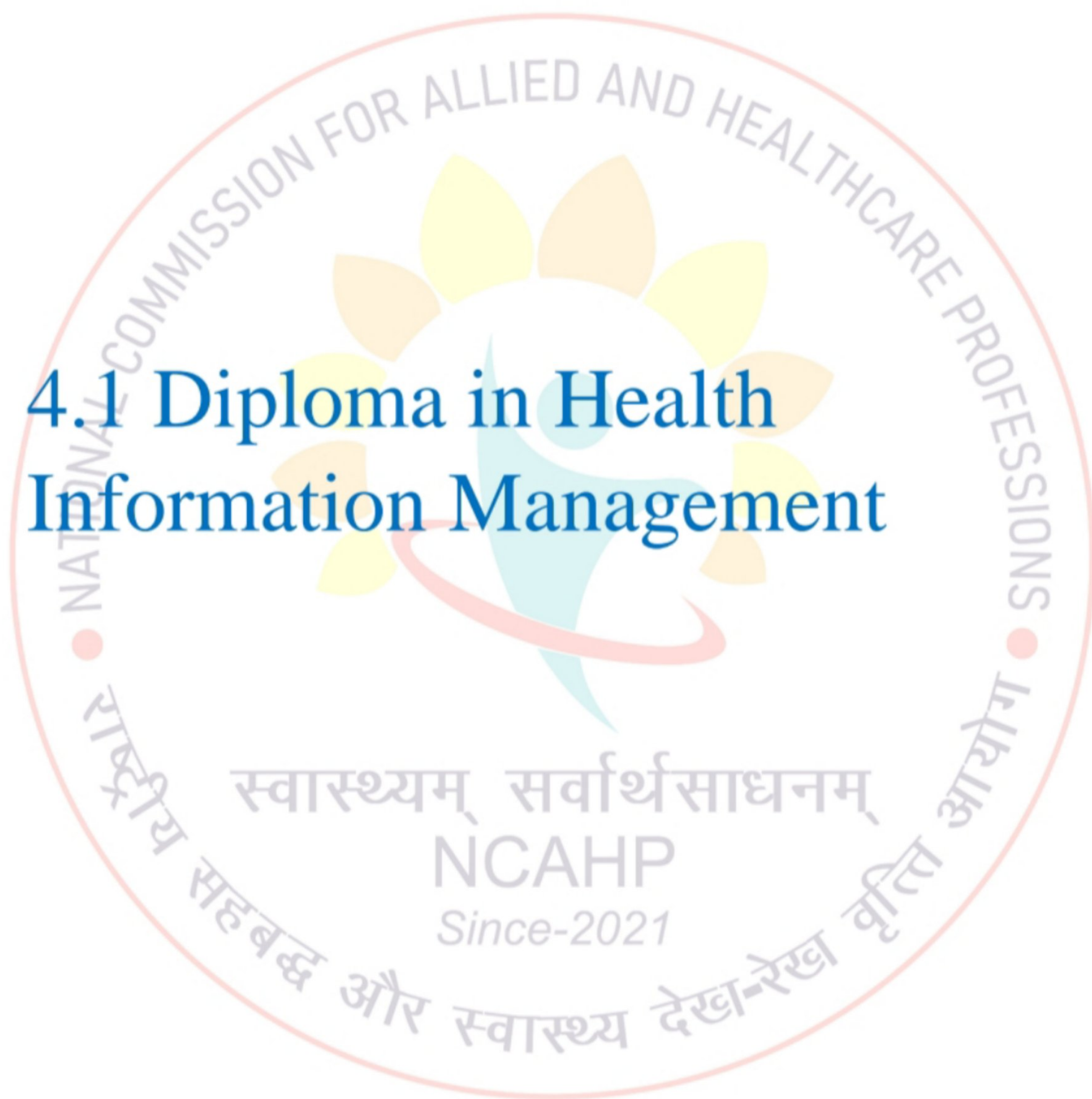
All aspects of Health Information Management have been considered in the development of this curriculum together with the identification of the roles expected for different levels of HIM professionals based on their qualification and experience. The need to bridge the dots between the education and employment practices has been the road map for this curriculum.

The National Curriculum Taskforce on Health Information Management has successfully designed the career and qualification map indicating the growth opportunities for a professional in the career pathway based on the level as indicated in the National Skills Qualification Framework (NSQF). The career pathway indicates the entry level after the completion of a minimum 2.5 years of diploma level Program, with internship (Diploma in Health Information Management) as well as the entry level after completion of a minimum 4 years of Baccalaureate level Program, with internship (B. Sc. in Health Information Management). The components of the programs starting from diploma and above has been detailed in the coming chapters.

A foundation course has also been designed to bring all the students at the same level of understanding with respect to basic healthcare related norms before the start of a career in a healthcare professional program. The foundation course is mandatory for all the allied health professional programs and for both entry level programs – diploma as well as degree. If a diploma holder has completed the foundation course and is willing to pursue the degree program, the candidate will directly get entry for next semester, however a pre-qualifier skill test will have to be satisfactorily completed, if not, then the candidate will have to undergo the first semester of foundation course again.

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4.1 Diploma in Health Information Management





Introduction:

Objectives/aim of the program:

To develop competent Health Information Management professionals that can:

- Enable the health care organization to better manage patient information
- Support health care administrators in routine activities
- Apply the knowledge obtained on specialized areas effectively in the health care system
- Work collaboratively with other health care professionals to achieve a quality service

Eligibility for admission:

Selection procedure

1. He/she has passed the Higher Secondary (10+2) or equivalent examination recognized by any Indian University or a duly constituted Board with pass marks in Physics, Chemistry, Biology/Mathematics.
2. He/she has attained the age of 17 years as on - (current year) & maximum age limit is 30 years.
3. He/she has to furnish at the time of submission of application form, a certificate of Physical fitness from a registered medical practitioner and two references from persons other than relatives testifying to satisfactory general character.

Duration of the program

Duration of the program is of 2.5 years or 5 semesters (inclusive of six months of internship) with 1465 hours of Theory & 655 hours of Practical Classes and 720 hours dedicated for internship.

Total number of hours – 2840.

Stipend for the internship:

During the internship period a student shall be paid a minimum of INR 2000/- month. The stipend shall be payable to all students who are carrying out a internship at designated hospitals only.

Medium of instruction:

English shall be the medium of instruction for all the subjects of study and for examination of the program.

Third Semester

Sl. No.	Course Titles	Hours		
		Theory	Practical	Total
DHIM-016	International Classification of Diseases (ICD-10) and Surgical Procedures (ICD-9CM) and SNOMED-CT	170	110	280
DHIM-017	Health Information Management – II	100	70	170
DHIM-018	Special Lectures	90	-	90
TOTAL		360	180	540

Fourth Semester

Sl. No.	Course Titles	Hours		
		Theory	Practical	Total
DHIM-019	Computer Skills	150	80	230
DHIM-020	Hospital Organization & Administration	150	70	220
DHIM-021	Special Lectures	90	-	90
TOTAL		390	150	540

Fifth Semester

Sl. No.	Course Titles	Hours		
		Theory	Practical	Total
DHIM-022	Internship		720	720

First Semester

Foundation course

Introduction to National Healthcare System

The course provides the students a basic insight into the main features of Indian health care delivery system and how it compares with the other systems of the world. Topics to be covered under the subject are as follows:

1. Introduction to healthcare delivery system
 - a. Healthcare delivery system in India at primary, secondary and tertiary care
 - b. Community participation in healthcare delivery system
 - c. Health system in developed countries.
 - d. Private Sector
 - e. National Health Mission
 - f. National Health Policy
 - g. Issues in Health Care Delivery System in India
2. National Health Program- Background objectives, action plan, targets, operations, achievements and constraints in various National Health Program.
3. Introduction to AYUSH system of medicine
 - a. Introduction to Ayurveda.
 - b. Yoga and Naturopathy
 - c. Unani
 - d. Siddha
 - e. Homeopathy
 - f. Need for integration of various system of medicine
4. Health scenario of India- past, present and future
5. Demography & Vital Statistics-
 - a. Demography – its concept
 - b. Vital events of life & its impact on demography
 - c. Significance and recording of vital statistics
 - d. Census & its impact on health policy
6. Epidemiology
 - a. Principles of Epidemiology
 - b. Natural History of disease
 - c. Methods of Epidemiological studies
 - d. Epidemiology of communicable & non-communicable diseases, disease transmission, host defense immunizing agents, cold chain, immunization, disease monitoring and surveillance.

Medical terminologies and record keeping

This course introduces the elements of medical terminology. Emphasis is placed on building familiarity with medical words through knowledge of roots, prefixes, and suffixes. Topics include: origin, word building, abbreviations and symbols, terminology related to the human anatomy, reading medical orders and reports, and terminology specific to the student's field of study. Spelling is critical and will be counted when grading tests.²² Topics to be covered under the subject are as follows:

1. Derivation of medical terms.
2. Define word roots, prefixes, and suffixes.
3. Conventions for combined morphemes and the formation of plurals.
4. Basic medical terms.
5. Form medical terms utilizing roots, suffixes, prefixes, and combining roots.
6. Interpret basic medical abbreviations/symbols.
7. Utilize diagnostic, surgical, and procedural terms and abbreviations related to the integumentary system, musculoskeletal system, respiratory system, cardiovascular system, nervous system, and endocrine system.
8. Interpret medical orders/reports (Practical training to be included).
9. Data entry and management on electronic health record system.

Basic computers and information science

The students will be able to appreciate the role of computer technology. The course has focus on computer organization, computer operating system and software, and MS windows, Word processing, Excel data worksheet and PowerPoint presentation. Topics to be covered under the subject are as follows:

Introduction to computer: **Introduction**, characteristics of computer, block diagram of computer, generations of computer, computer languages.

1. Input output devices: Input devices(keyboard, point and draw devices, data scanning devices, digitizer, electronic card reader, voice recognition devices, vision-input devices), output devices(monitors, pointers, plotters, screen image projector, voice response systems).
2. Processor and memory: The Central Processing Unit (CPU), main memory.
3. Storage Devices: Sequential and direct access devices, magnetic tape, magnetic disk, optical disk, mass storage devices.
4. Introduction of windows: History, features, desktop, taskbar, icons on the desktop, operation with folder, creating shortcuts, operation with windows (opening, closing, moving, resizing, minimizing and maximizing, etc.).
5. Introduction to MS-Word: introduction, components of a word window, creating, opening and inserting files, editing a document file, page setting and formatting the text, saving the document, spell checking, printing the document file, creating and editing of table, mail merge.
6. Introduction to Excel: introduction, about worksheet, entering information, saving workbooks and formatting, printing the worksheet, creating graphs.

7. Introduction to power-point: introduction, creating and manipulating presentation, views, formatting and enhancing text, slide with graphs.
8. Introduction of Operating System: introduction, operating system concepts, types of operating system.
9. Computer networks: introduction, types of network (LAN, MAN, WAN, Internet, Intranet), network topologies (star, ring, bus, mesh, tree, hybrid), components of network.
10. Internet and its Applications: definition, brief history, basic services (E-Mail, File Transfer Protocol, telnet, the World Wide Web (WWW)), www browsers, use of the internet.
11. Application of Computers in clinical settings.

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Practical on fundamentals of computers -

1. Learning to use MS office: MS word, MS PowerPoint, MS Excel.
2. To install different software.
3. Data entry efficiency
4. Miscellaneous: Scanning of documents (of various sizes) and in different conditions (for e.g., mutilated), file naming, saving, uploading, etc. Copying of original medical document, back up of old data/ records.

Medical law and ethics

Legal and ethical considerations are firmly believed to be an integral part of medical practice in planning patient care. Advances in medical sciences, growing sophistication of the modern society's legal framework, increasing awareness of human rights and changing moral principles of the community at large, now result in frequent occurrences of healthcare professionals being caught in dilemmas over aspects arising from daily practice.²³

Medical ethics has developed into a well based discipline which acts as a "bridge" between theoretical bioethics and the bedside. The goal is "to improve the quality of patient care by identifying, analyzing, and attempting to resolve the ethical problems that arise in practice".²⁷ Doctors are bound by, not just moral obligations, but also by laws and official regulations that form the legal framework to regulate medical practice. Hence, it is now a universal consensus that legal and ethical considerations are inherent and inseparable parts of good medical practice across the whole spectrum. Few of the important and relevant topics that need to focus on are as follows:

1. Medical ethics - Definition - Goal - Scope
2. Introduction to Code of conduct
3. Basic principles of medical ethics – Confidentiality
4. Malpractice and negligence - Rational and irrational drug therapy
5. Autonomy and informed consent - Right of patients
6. Care of the terminally ill- Euthanasia

7. Organ transplantation
8. Medico legal aspects of Health Information Management – Medico legal case and type- Records and document related to MLC - ownership of medical records - Confidentiality Privilege communication - Release of medical information - Unauthorized disclosure - retention of medical records - other various aspects.
9. Professional Indemnity insurance policy
10. Development of standardized protocol to avoid near miss or sentinel events
11. Obtaining an informed consent.

Communication and soft skills

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Major topics to be covered under Communication course²⁴ –

1. Basic Language Skills: Grammar and Usage.
2. Business Communication Skills. With focus on speaking - Conversations, discussions, dialogues, short presentations, pronunciation.
3. Teaching the different methods of writing like letters, E-mails, report, case study, collecting the patient data etc. Basic compositions, journals, with a focus on paragraph form and organization.
4. Basic concepts & principles of good communication
5. Special characteristics of health communication
6. Types & process of communication
7. Barriers of communication & how to overcome

Introduction to Quality and patient safety

1. Quality assurance and management - The objective of the course is to help students understand the basic concepts of quality in health Care and develop skills to implement sustainable quality assurance program in the health system.
 - a. Concepts of Quality of Care
 - b. Quality Improvement Approaches
 - c. Standards and Norms
 - d. Quality Improvement Tools
 - e. Introduction to NABH guidelines
2. Basics of emergency care and life support skills - Basic life support (BLS) is the foundation for saving lives following cardiac arrest. Fundamental aspects of BLS include immediate recognition of sudden cardiac arrest (SCA) and activation of the emergency response system, early cardiopulmonary resuscitation (CPR), and rapid defibrillation with an automated external defibrillator (AED). Initial recognition and response to heart attack and stroke are also considered part of BLS. The student is also expected to learn about basic emergency care including first aid and triage. Topics to be covered under the subject are as follows:

- a. Vital signs and primary assessment
- b. Basic emergency care – first aid and triage
- c. Ventilations including use of bag-valve-masks (BVMs)
- d. Choking, rescue breathing methods
- e. One- and Two-rescuer CPR
- f. Using an AED (Automated external defibrillator).
- g. Managing an emergency including moving a patient

At the end of this topic, focus should be to teach the students to perform the maneuvers in simulation lab and to test their skills with focus on airways management and chest compressions. At the end of the foundation course, each student should be able to perform and execute/operate on the above mentioned modules.

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3. Bio medical waste management and environment safety- The aim of this section will be to help prevent harm to workers, property, the environment and the general public. Topics to be covered under the subject are as follows:
 - a. Definition of Biomedical Waste
 - b. Waste minimization
 - c. BMW – Segregation, collection, transportation, treatment and disposal (including color coding)
 - d. Liquid BMW, Radioactive waste, Metals / Chemicals / Drug waste
 - e. BMW Management & methods of disinfection
 - f. Modern technology for handling BMW
 - g. Use of Personal protective equipment (PPE)
 - h. Monitoring & controlling of cross infection (Protective devices)
4. Infection prevention and control - The objective of this section will be to provide a broad understanding of the core subject areas of infection prevention and control and to equip AHPs with the fundamental skills required to reduce the incidence of hospital acquired infections and improve health outcomes. Concepts taught should include –
 - a. Evidence-based infection control principles and practices [such as sterilization, disinfection, effective hand hygiene and use of Personal protective equipment (PPE)],
 - b. Prevention & control of common healthcare associated infections,
 - c. Components of an effective infection control program, and
 - d. Guidelines (NABH and JCI) for Hospital Infection Control
5. Antibiotic Resistance-
 - a. History of Antibiotics
 - b. How Resistance Happens and Spreads
 - c. Types of resistance- Intrinsic, Acquired, Passive
 - d. Trends in Drug Resistance
 - e. Actions to Fight Resistance
 - f. Bacterial persistence

- g. Antibiotic sensitivity
 - h. Consequences of antibiotic resistance
 - i. Antimicrobial Stewardship- Barriers and opportunities, Tools and models in hospitals
6. Disaster preparedness and management- The objective of this section will be to provide knowledge on the principles of on-site disaster management. Concepts to be taught should include-
- a. Fundamentals of emergency management,
 - b. Psychological impact management,
 - c. Resource management,
 - d. Preparedness and risk reduction,
 - e. Key response functions (including public health, logistics, recovery, rehabilitation and reconstruction), information management, incident command and institutional mechanisms.

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Professionalism and Values

The course on professionalism will deliver the concept of what it means to be a professional and how a specialized profession is different from a usual vocation. It also explains how relevant is professionalism in terms of healthcare system and how it affects the overall patient environment.

1. Professional values- Integrity, Objectivity, Professional competence and due care, Confidentiality
2. Personal values- ethical or moral values
3. Attitude and behavior- professional behavior, treating people equally
4. Code of conduct , professional accountability and responsibility, misconduct
5. Differences between professions and importance of team efforts
6. Cultural issues in the healthcare environment

Research Methodology and Biostatistics

The objective of this is to help the students understand the basic principles of research and methods applied to draw inferences from the research findings.

1. Introduction to research methods
2. Identifying research problem
3. Ethical issues in research
4. Research design
5. Basic Concepts of Biostatistics
6. Types of Data
7. Research tools and Data collection methods
8. Sampling methods
9. Developing a research proposal

Health Information Management – I:

I. Characteristics of quality Health Information Management:

- Definition, Characteristics of 'Good' Medical Record
- Values of 'Good' Medical Record to various users
- Required Characteristics of entries in medical Records
- Source-oriented, Problem-oriented, and Integrated medical records
- Medical Record Forms and their Content
- Standard Order of Arrangement of Medical Record forms
- Analysis of Medical Record-Quantitative & Qualitative
- Incomplete Record Control
- Practical: Actual handling of medical records

II. Medical Records for different patient encounters with health care facilities

- Ambulatory Care Records [Emergency & Outpatient Records]
- Clinical Records in Long Term Care and Rehabilitation Facilities
- Mental Health Records

III. Filing Methods, Storage, and Retention

- Numbering and Filing Systems
- Filing
- Storage- Microfilming and Disk Storage
- Retention
- Registers & Indexes
- Record movement control & Tracking system

IV. Organizational Aspects of Health Information Management Department/Services

- Policies
- Functions
- Location, Space and Layout
- Equipment
- Forms Designing and Control
- Medical Records Flow and Processing

V. Organizational Aspects of the Centralized Admitting Services

- Principles of Identification of a Patient
- Methods of Collection of Identification Data
- Types of Central Admitting Services
- Admitting Policies
- Procedure Outlines for Admissions

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- Flow of Records following Admissions
- Advantages of good Admitting Policies and Procedures
- Pre-requisites for smooth & efficient functioning of the Centralized Admitting Services

VI. Medical Record Department Management

- Planning, Organizing, Directing and Controlling
- Personnel
- Principal Responsibilities and Duties of the Medical Record Administrator/Director
- Tools of Management in the Hands of the Medical Record Administrator/Director

VII. Intradepartmental and Interdepartmental Relationships

- Developing Intradepartmental Relationship
- Developing Interdepartmental Relationships with various L Hospital

VIII. Quality Management

- External and Internal Pressures for quality
- Quality Assessment and Quality Improvement
- Quality Assurance & Medical Care Evaluation
- Utilization management
- Peer Review
- Utilization review processing & outcomes of Utilization management
- Risk management program [Organization & Operation]
- International Standards Organization [ISO], Quality Council of India, & National Accreditation Board of Hospitals [NABH]

IX. Health Care Statistics, Quality control of Data Collection & Presentation

- Incomplete Record Control
- Inpatient census and rates computed from it.
- Ambulatory care statistics
- Long term Care Statistics
- Processing and reporting of Reproductive Health Statistics
- Reporting of Notifiable Diseases to Public Health Authorities

X. Medico-Legal Aspects of Health Information Management

- Medical Ethics, Hippocratic Oath, and Code of Ethics for the HIM Professionals
- Ownership of the Medical Record
- Privileged Communication and confidentiality of Medical Records
- Release of Information: To the Patient, To Authorized Persons /Agencies Legal Implications of release of Information to unauthorized, Persons/Agencies.
- Consents: Different types and their validity, invalidity blanket, and improper consents.

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- Corrections in identification data medical documentations
- Rights and responsibilities of patients
- Medical Record in a Court of Law
- Legal requirements in Retention of Medical Records

Anatomy, Physiology, & lab science:

Understand the technical functions of various organs and systems of the body
Acquire knowledge about various body fluids, hormones and enzymes Topics Covered:



- Corrections in identification data medical documentations
- Rights and responsibilities of patients
- Medical Record in a Court of Law
- Legal requirements in Retention of Medical Records

Anatomy, Physiology, & lab science:

Understand the technical functions of various organs and systems of the body

Acquire knowledge about various body fluids, hormones and enzymes Topics Covered:

- Integumentary system,
- Musculoskeletal system,
- Respiratory system,
- Cardiovascular system,
- Blood and lymphatic system,
- Digestive system,
- Urogenital systems
- Nervous system,
- Organs of special sense.

General statistics & Biostatistics:

General Bio-statistics

- Definition of Statistics and Biostatistics
- Frequency Distribution: Measures of Central Tendency – Arithmetic Mean, Median and Mode for un-grouped and grouped data
- Presentation of data: Bar diagram, Pie Diagram, Histogram, Frequency polygon, Frequency curve, and Line diagram.
- Measures of Variation: Range, Inter Quartiles, Mean Deviation, Standard Deviation Co-efficient of Variation
- Probability: Definitions of Classical Probability (Priori) and Frequency, Probability (Posteriori), Addition and Multiplicative Theorems of Probability
- Probability Distribution: Binomial distribution, Poisson distribution and Normal distribution
- Sampling- Definition: Population and simple Sampling, Simple Random Sampling, Stratified Random Sampling, Systematic Random Sampling and Cluster Sampling
- Correlation and Regression: Scatter Diagram, Linear Correlation and Linear Regression Equation Test of Significance – Procedure Test of Significance for large samples and for small samples Chi-square Test – Testing for association Misuse of Chi-square Test

Hospital Statistics

- Definition of hospital statistics and important Hospital Terms
- Sources of Hospital Statistics – Registers, Medical Records and Daily Ward Census
- Analysis of Hospital Services and Discharges → Important Rates, Ratio and Percentages with Formula
- Uses and Limitations of Hospital Statistics
- Hospital Statistics Reporting
- Practical: Hands-on training in hospital statistics – collection and analysis

Communication skills:

- Basics of Communication: Process of and models of communications,
- Types of communications: a). Oral communication b). Written Communication c). Non-verbal communication & Body language, Barriers to communications
- Reading Skills: →Types of readings: Skimming, Scanning, intensive reading, map reading → Sample passages for reading with comprehension Tables and Graphic Organizers
- Listening skills → Definition of listening →Types of Listening → Purposes of listening → Obstacles for listening →Contexts of listening →To be a good listener → Listening to a Lecture
- Speaking Skills: Formal & Informal Conversation: Agreeing, Emphasizing, thinking ahead, correcting oneself, interrupting, politely expressing reservations, opinions, disagreeing, accepting invitations declining invitations etc. Telephone Conversation and Interviews

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Medical Terminology – II:

I. Introduction to Medical Terminology

1. Definition and Origin of Medical Terms.
2. Components of Medical Terms
3. Prefixes
4. Suffixes
5. Roots and Combining forms
6. External Anatomy and Internal Anatomy
7. Additional Lists and their combining forms grouped as: Verbs, Adjectives, Body Fluids, Body Substances, Chemicals, Colours and Phobias

II. Terms Relating to the Body as a Whole

1. Study of the Body
2. Basic Structures
3. Cells
4. Tissues
5. Organs
6. Systems
7. Directions
8. Anatomic Planes and Position

III. The Skeletal System

1. Pathologic conditions (Inflammations and Infections)
2. Hereditary, Congenital and Developmental Disorders
3. Fractures
4. Metabolic and Deficiency Diseases
5. Symptomatic Terms
6. Diagnostic Terms
7. Oncology Terms
8. Operative Terms
9. Laboratory Tests and Procedures
10. Standard Abbreviations

IV. The Muscular System

1. Pathologic Conditions
2. Degenerative and Innervative Disorders
3. Hereditary, Congenital and Developmental Disorders
4. Symptomatic Terms
5. Diagnostic Terms
6. Oncology Terms
7. Operative Terms
8. Laboratory Tests and Procedures.
9. Standard Abbreviations

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International Classification of Diseases (ICD-10) and Surgical Procedures (ICD-9CM) and SNOMED-CT:

- Coding of final diagnosis and secondary diagnosis.
- Disease and operation nomenclatures, International Classification of Disease 10, International Classification of Disease – 9CM indexing of patient care data.
- Introduction and usage of International Classification of Disease in practicals
- International Classification of Diseases
- ICD-10, ICD-9 CM (Surgical Procedures)
- CPT – Current Procedural Terminology (Introduction)
- HCPCS – Healthcare Common Procedure Coding System (Introduction)
- ICD-10 - Alpha-numeric coding
- Volume 1 – Tabular list
- Volume 2 – Instruction manual
- Volume 3 – Alphabetical Index
- Classification of Diseases according to Clinical Pertinence
- ICD-9CM (Procedure) coding – International Classification of Diseases – Clinical modification
- CPT – Introduction of CPT and HCPCS – 3 levels of codes
- SNOMED-CT

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Health Information Management – II:

Health Information Management serves the healthcare industry and the public by managing, analyzing, and utilizing the data vital for patient care and making the data accessible to healthcare providers. Enhancing individual patient care through timely and relevant information is one of the primary goals for the Health Information Management Technology.

1. Development of Health Care Information
 - Health Care Information standards, Paper based Health Records, Computer based patient records, Ethical issues in Health Information Management
2. Comparative data
 - Research methods, Clinical quality management
3. Management of Health Information Services
 - Principles of Management and Leadership, Work Design and Performance improved, Human Resources Management, Training and Development, Project Management, Strategic Management.

Special Lectures:

Medical Language & Classification Systems

Subject expose student to the healthcare vocabularies and also the representation of clinical data through the use of medical vocabularies and clinical classification systems. Emphasis is on developing expertise in identifying appropriate clinical classification systems and medical vocabularies, identifying their appropriate uses and sources, and applying them within and among health information systems to promote effective communication. Standard clinical terminologies including SNOMED, ICD 10, ICD-9-CM, ICD-10-CM, and ICD-9-PCS, ICPM, CPT/HCPCS, National Drug Codes and healthcare vocabularies and clinical terminologies in the electronic health record.

Change Leadership

Develop a systems-based way of thinking about leadership and how people function in the workplace, self-assess leadership thinking and behavior, establish goals for a higher level of leadership functioning, and integrate System-based Leadership and Change Management with models of change management and transition. Also, identify patterns of behavior that sabotage change in your system and internalize behavior for leading change in the organization.

Standard documentation Practices & Implementation

Subject covers components of EHR implementation as identified through case studies of best practices. Examine how the EHR impacts patient care through the availability of information and clinical decision support, create and use rules and clinical protocols/tools for the EHR, and develop training methodologies.

5. Operating Systems

- Identify operating systems and their attributes (i.e., Unix, Macintosh, Windows)
- Identify the advantages and disadvantages of the computer to individuals and business.
- Identify the roles and equipment used for input, processing, and output in an information system.
- Identify correct safety procedures

6. Demonstrate basic computer literacy

- Create directories/folders and sub-directories
- Format disks
- Manipulate files (copy, rename, delete)
- Keyboard proficiently by touch

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Hospital Organization & Administration:

1. Introduction to Hospital Administration

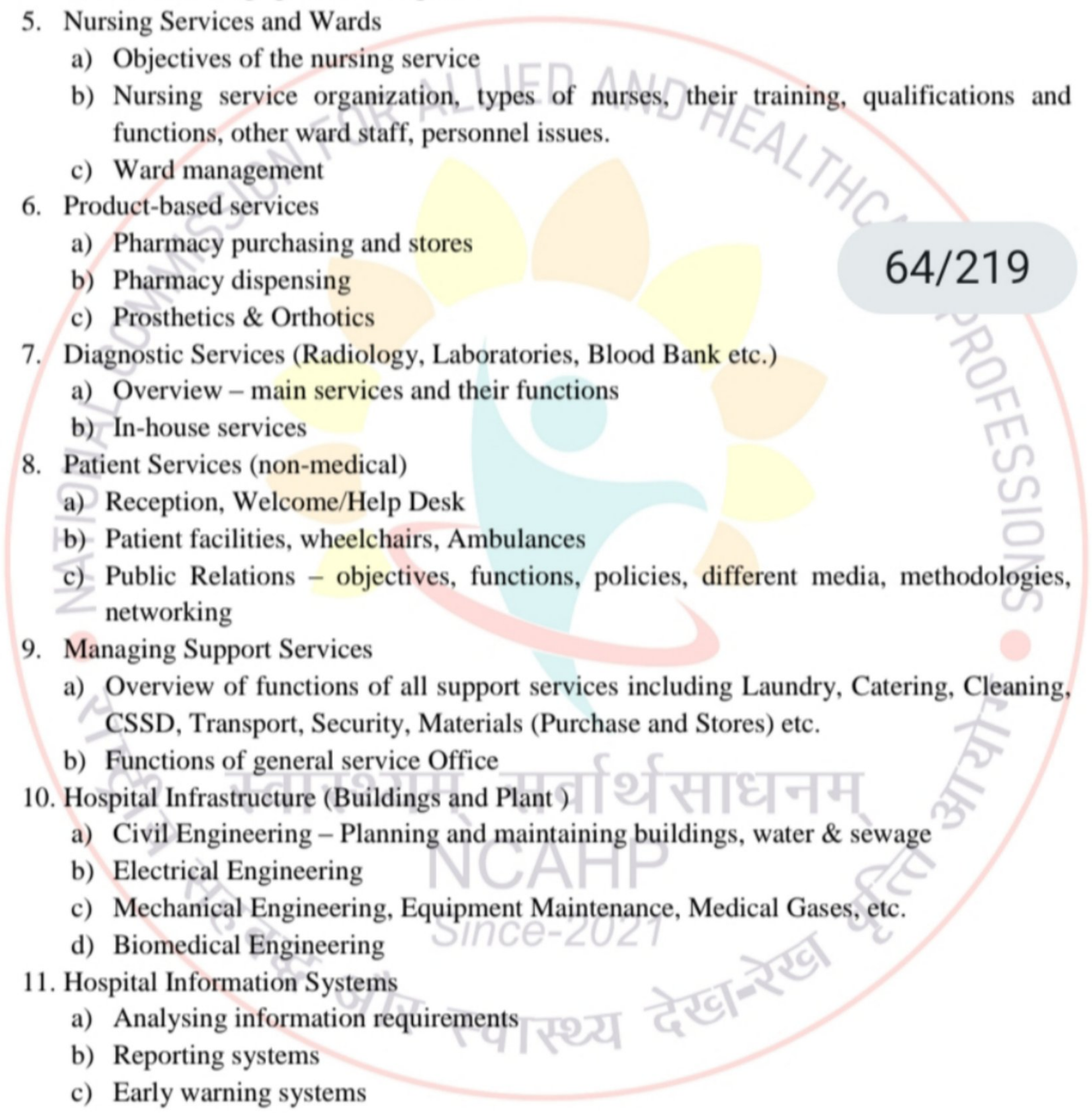
- a) Who's Who in hospital – Key administrators and their functions, overview of medical and para-medical specialties, main service departments:
- b) Overview of health services – government services: private & not for profit: primary, secondary & tertiary health care: types of hospital: community, super-specialty etc.

2. Principles of Organizational Management

- a) Culture, Values and Mission
- b) Organizational Structure
- c) Planning and Controlling
- d) Hospital Organizational Structures – Government, Private and Not for Profit.

3. Managing People (Human Resources)

- a) Overview – scope and functions of HR dept., HR planning
- b) Recruitment and Appointment
- c) Training and Development
- d) Goal setting, rewards systems and motivation
- e) Performance Appraisal
- f) Promotion, internal transfers
- g) Problems and Legal issues
- h) Leadership
- i) Working in teams

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4. Clinical Services
- a) Overview of clinical departments and services – OPD, In-patients, ICU, Surgical, Emergency, Community/family Health, Paramedical & Rehabilitation
 - b) Types of doctors, their training, roles and responsibilities
 - c) The role & responsibilities of the HOD
 - d) Medical Audit
 - e) Medical Negligence & Litigation
5. Nursing Services and Wards
- a) Objectives of the nursing service
 - b) Nursing service organization, types of nurses, their training, qualifications and functions, other ward staff, personnel issues.
 - c) Ward management
6. Product-based services
- a) Pharmacy purchasing and stores
 - b) Pharmacy dispensing
 - c) Prosthetics & Orthotics
7. Diagnostic Services (Radiology, Laboratories, Blood Bank etc.)
- a) Overview – main services and their functions
 - b) In-house services
8. Patient Services (non-medical)
- a) Reception, Welcome/Help Desk
 - b) Patient facilities, wheelchairs, Ambulances
 - c) Public Relations – objectives, functions, policies, different media, methodologies, networking
9. Managing Support Services
- a) Overview of functions of all support services including Laundry, Catering, Cleaning, CSSD, Transport, Security, Materials (Purchase and Stores) etc.
 - b) Functions of general service Office
10. Hospital Infrastructure (Buildings and Plant)
- a) Civil Engineering – Planning and maintaining buildings, water & sewage
 - b) Electrical Engineering
 - c) Mechanical Engineering, Equipment Maintenance, Medical Gases, etc.
 - d) Biomedical Engineering
11. Hospital Information Systems
- a) Analysing information requirements
 - b) Reporting systems
 - c) Early warning systems
 - d) Computerized Systems, intranet
12. Managing the Organization (putting it all together)
- a) Planning: strategy and corporate planning
 - b) Dealing with risk and uncertainty
 - c) Organizational Development and Change management
 - d) Corporate Governance & legal matters
 - e) Relationships with other institutions and organizations

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Special Lectures:

Quality Management in Health Services (Quality Assurance in healthcare)

Subject covers diverse perspectives in quality management and regulation including relevant research and management methodologies of quality, cost and access to healthcare with a focus on the role of health information management. Overview of performance improvement, methods and applications in the area of outcomes research including practice variation, risk adjustment, quality measures and quality management (or quality improvement), practice guidelines, evidence-based medicine, clinical decision support, health-related quality of life, utility assessment, economic evaluations (including cost-effectiveness studies).

Legal Issues in Health Information Technology and Systems

Examination of legal issues related to electronic-based health information; the growth of computer and communication technologies, including privacy, security, electronic data interchange and compliance related issues; policy, regulatory and related concerns; interpretation and implementation of enterprise information policy. Principles of law applied to the health field with emphasis on federal, state, and local laws affecting health information management practice, confidentiality, and security of information.

Leadership for Health Information Technology and Systems

Strategic management and planning, change management, leadership in e-health environment, project management including planning, scheduling, monitoring and reporting, process modeling. This course builds on the foundations of health information management or other professional preparation. Discussion of implementation of electronic health record systems, systems analysis from the enterprise level will be the focus of the class. Students are expected to develop a systems-thinking approach to leading health IT projects.

Fifth Semester

Internship:

The internship will span 6 months/ 1 semester.

As a part of this, the students will choose a relevant subject and prepare an in-depth project report of not less than 1000 words which will be handed over to the supervisor or trainer. The report can include objective, scope of the project and an in-depth report.

Professional Competencies

Professional Conduct

Professional conduct is of utmost importance for individuals pursuing a Diploma in Health Information Management (HIM). As HIM professionals, they are entrusted with the responsibility of managing and safeguarding sensitive patient health information. Professional conduct in this field entails adhering to ethical standards, maintaining strict confidentiality, and demonstrating integrity in all aspects of their work. They must handle patient data with utmost care, ensuring its accuracy, privacy, and security. HIM professionals should also exhibit professionalism in their interactions, communicate effectively, and collaborate with interdisciplinary teams. They should stay updated with the evolving healthcare landscape, comply with relevant regulations, and actively engage in continuous education to enhance their knowledge and skills. By upholding these principles of professional conduct, individuals pursuing a Diploma in Health Information Management can contribute to the effective management and protection of health information, ultimately supporting quality healthcare delivery.

Provide Description / required tools:

Performance Criteria	Indicators		
	Knowledge	Skill	Behaviors
Demonstrate a thorough understanding of the principles, concepts, and theories of health information management, including healthcare data management, medical coding and classification systems, health information technologies, privacy and security regulations, and healthcare reimbursement methods.	1. Understanding of the principles and concepts of health information management 2. Knowledge of healthcare data management, including data collection, storage, and retrieval methods 3. Familiarity with medical coding and classification systems, such as ICD, CPT, ICPM, ICD-Oncology, DSM-III etc. 4. Knowledge of health information technologies, including electronic health record systems and health information exchange	1. Ability to effectively manage healthcare data, including data collection, organization, and analysis. 2. Proficiency in medical coding and classification systems to assign accurate codes for diagnoses, procedures, and services. 3. Competence in using health information technologies and electronic health record systems. 4. Skill in ensuring compliance with privacy and security regulations and implementing appropriate safeguards for health information.	1. Demonstrating a commitment to continuous learning and staying updated with emerging trends and advancements in health information management 2. Adhering to professional ethics and maintaining confidentiality and privacy of health information 3. Collaborating effectively with healthcare professionals, patients, and other stakeholders 4. Demonstrating attention to detail and accuracy in managing health information

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	5. Understanding of privacy and security regulations, and their implications for health information management 6. Knowledge of healthcare reimbursement methods and their impact on health information management	5. Ability to analyze healthcare reimbursement methods and their implications for health information management	5. Applying critical thinking and problem-solving skills to address challenges related to health information management
Gather, organize, and analyze healthcare data using appropriate tools and techniques.	1. Understanding of healthcare data sources and collection methods 2. Knowledge of data standards and terminology used in healthcare. 3. Familiarity with data validation and quality assurance techniques 4. Understanding of data management principles and best practices	1. Proficiency in data collection methods, such as data abstraction from medical records or electronic health records 2. Ability to organize and structure healthcare data in a meaningful and logical manner. 3. Competence in using data management tools and software applications for data organization and storage. 4. Skill in data analysis techniques, including statistical analysis, data visualization, and reporting.	1. Attention to detail and accuracy in collecting 2. Effective time management skills to ensure timely and efficient data gathering and organization. 3. Collaboration and teamwork to work with healthcare professionals and stakeholders involved in data collection. 4. Commitment to maintaining data privacy and confidentiality throughout the data handling process.



	5. Knowledge of data analysis techniques, including statistical analysis and data modeling	5. Ability to identify and address data quality issues through validation and verification processes	5. Critical thinking and problem-solving skills to identify data analysis needs and select appropriate tools and techniques
Utilize health information systems and electronic health record (EHR) platforms effectively.	1. Understanding of health information systems and their components 2. Knowledge of electronic health record (EHR) platforms and their functionalities 3. Familiarity with health information exchange standards and interoperability 4. Understanding of data security and privacy requirements in health information systems 5. Knowledge of health informatics principles and practices	1. Proficiency in navigating and using different health information systems and EHR platforms. 2. Ability to input, retrieve, and update patient information in EHR systems accurately and efficiently. 3. Competence in utilizing health information exchange methods and protocols. 4. Skill in troubleshooting and resolving basic technical issues related to health information systems. 5. Ability to collaborate and communicate effectively with IT professionals and system administrators for system implementation and maintenance	1. Adhering to professional ethics and maintaining patient confidentiality and privacy when accessing and using health information systems 2. Attention to detail and accuracy in entering and managing patient data in EHR platforms. 3. Effective time management skills to ensure efficient utilization of health information systems. 4. Collaboration and teamwork to effectively communicate and coordinate with healthcare professionals and stakeholders using health information systems. 5. Continuous learning and adaptability to keep up with advancements in health information systems and technology

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Apply knowledge of coding systems such as International Classification of Diseases (ICD), Current Procedural Terminology (CPT), and Healthcare Common Procedure Coding System (HCPCS) to accurately assign codes to diagnoses, procedures, and services for proper reimbursement and healthcare data analysis.	1. Understanding of the structure and purpose of coding systems such as ICD, CPT, and HCPCS. 2. Knowledge of coding guidelines and conventions specific to each coding system. 3. Familiarity with medical terminology, anatomy, and physiology to accurately assign codes. 4. Understanding of coding classifications and categories for diagnoses, procedures, and services. 5. Knowledge of coding compliance and regulatory requirements.	1. Proficiency in assigning accurate codes for diagnoses, procedures, and services using ICD, CPT, ICPM, ICD-Oncology, DSM-III etc. 2. Coding systems. 3. Ability to interpret and apply coding guidelines and conventions correctly. 4. Competence in using coding references and software tools to support accurate coding. 5. Skill in reviewing medical documentation and extracting relevant information for coding purposes. 6. Ability to identify and resolve coding discrepancies or documentation gaps.	1. Adhering to professional ethics and maintaining confidentiality when working with patient health information during coding processes. 2. Attention to detail and accuracy in assigning codes to ensure proper reimbursement and data analysis. 3. Effective time management skills to meet coding deadlines and productivity targets. 4. communication with healthcare professionals and coding team members to clarify documentation or coding queries. 5. Continuous learning and staying updated with coding updates, regulations, and industry best practices.
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Understand and adhere to legal and ethical principles related to health information privacy and security.	1. Understanding of legal and ethical principles related to health information privacy and security, including relevant laws and regulations such as HIPAA. 2. Knowledge of data governance and stewardship principles in healthcare organizations. 3. Familiarity with security measures and best practices for protecting health information. 4. Understanding of statistical analysis methods and techniques used in health information management. 5. Knowledge of data reporting standards and requirements in healthcare.	1. Ability to apply legal and ethical principles to ensure compliance with privacy and security regulations. 2. Competence in implementing appropriate safeguards to protect health information from unauthorized access or disclosure. 3. Proficiency in data analysis techniques, including data cleansing, aggregation, and statistical analysis. 4. Skill in using data analysis software and tools to generate reports and statistical summaries. 5. Ability to interpret and communicate meaningful insights derived from health information data.	1. Adhering to professional ethics and maintaining confidentiality and privacy of health information. 2. Attention to detail and accuracy in handling health information data to ensure data integrity. 3. Collaboration and teamwork in working with stakeholders to understand their data analysis needs. 4. Effective communication and presentation skills to convey findings and insights derived from health information data. 5. Commitment to continuous learning and staying updated with advancements in privacy, security, and data analysis in healthcare.
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Analyze health information data to generate reports, statistical summaries, and meaningful insights that support decision-making processes in healthcare organizations.	1. Understanding of data analysis principles and techniques used in healthcare. 2. Knowledge of statistical methods and tools commonly used in health information management. 3. Familiarity with data visualization techniques to present information effectively. 4. Understanding of healthcare terminology and concepts to interpret and analyze health information data. 5. Knowledge of relevant regulations and standards for data analysis and reporting in healthcare.	1. Proficiency in using data analysis software and tools to manipulate and analyze health information data. 2. Ability to extract, transform, and load data from various sources for analysis. 3. Competence in applying statistical methods to identify patterns, trends, and correlations in health information data. 4. Skill in generating reports, statistical summaries, and visualizations that effectively communicate findings. 5. Ability to interpret and draw meaningful insights from health information data.	1. Attention to detail and accuracy in data analysis to ensure the integrity and reliability of findings. 2. Adhering to professional ethics and maintaining confidentiality and privacy of health information during analysis. 3. Collaboration and teamwork to work with healthcare professionals and stakeholders to understand their data analysis needs. 4. Effectively communicating findings to diverse audiences. 5. Commitment to continuous learning and staying updated with advancements in data analysis techniques and tools in healthcare.
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Demonstrate professionalism, effective communication, and interpersonal skills in working with healthcare professionals, patients, and other stakeholders.	1. Understanding of professional ethics and standards in healthcare and health information management. 2. Knowledge of effective communication techniques and strategies. 3. Familiarity with healthcare organizational structures and roles of different stakeholders. 4. Understanding of patient-centered care principles and the importance of patient engagement	1. Proficiency in verbal and written communication to effectively convey information and collaborate with healthcare professionals, patients, and stakeholders. 2. Ability to adapt communication style to different audiences and contexts. 3. Competence in active listening to understand and respond to the needs of healthcare professionals, patients, and stakeholders. 4. Skill in conflict resolution and problem-solving to address any challenges that may arise during interactions. 5. Ability to build rapport and establish positive relationships with healthcare professionals, patients, and stakeholders.	1. Demonstrating professionalism and ethical behavior in all interactions. 2. Respectful and empathetic communication with healthcare professionals, patients, and stakeholders. 3. Collaboration and teamwork to effectively work with interdisciplinary healthcare teams. 4. Cultural sensitivity and awareness to address diverse needs and perspectives. 5. Maintaining confidentiality and privacy of health information and adhering to data protection regulations.
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