

B.Sc.
Medical Record
Technology

Faculty of Allied
Health Sciences

Scheme of Examination

Ist Semester

S.NO	Subject Name	Paper Code	Theory Examination		Practical Examination		Total Marks	Credit
			Univ. Exam.	Internal Assessment	Univ. Exam.	Internal Assessment		
1.	Introduction to Medical Record Science		60	40			100	4
2.	Human Anatomy and Physiology		60	40	30	20	150	4+2
3.	Clinical and General Pathology		60	40	30	20	150	4+2
4.	Communication Skills and Personality Development		60	40	-	-	100	4
	Total		240	160	60	40	500	20

IInd Semester

S.No	Subject Name	Paper Code	Theory Examination		Practical Examination		Total Marks	Credit
			Univ. Exam.	Internal Assessment	Univ. Exam.	Internal Assessment		
1.	Microbiology, Biochemistry		60	40	30	20	150	4+2
2.	Pharmacology		60	40			100	4
3.	Forensic Medicine		60	40	-	-	100	4
4.	Medical Terminology I		60	40			100	4
5.	Fundamentals of Computer Science		60	40	30	20	150	4+2
	Total		300	200	60	40	600	24

IIIrd Semester

S.No	Subject Name	Paper Code	Theory Examination		Practical Examination		Total Marks	Credit
			Univ. Exam.	Internal Assessment	Univ. Exam.	Internal Assessment		
1.	Bio-Statistics		60	40	30	20	150	4+2
2.	Medical Terminology II		60	40			100	4
3.	Information Technology		60	40	30	20	150	4+2
4.	Medical Record Science		60	40	-	-	100	4
5.	Environmental Science		60	40	-	-	100	4
	Total		300	200	60	40	600	24

IVth Semester

S.NO	Subject Name	Paper Code	Theory Examination		Practical Examination		Total Marks	Credit
			Univ. Exam.	Internal Assessment	Univ. Exam.	Internal Assessment		
1.	Health Information System		60	40	30	20	150	4+2
2.	Hospital Statistics		60	40	-	-	100	4
3.	Management Information System in Health Care		60	40	-	-	100	4
4.	Hospital planning and Organization		60	40	-	-	100	4
5.	Legal issue in Health care		60	40	-	-	100	4
	Total		300	200	30	20	550	22

Vth Sem

S.NO	Subject Name	Paper Code	Theory Examination		Practical Examination		Total Marks	Credit
			Univ. Exam	Internal Assessment	Univ. Exam.	Internal Assessment		
1.	Internal Classification of disease (ICD-10) & Surgical Procedures		60	40	30	20	150	4+2
2.	Hospital Organization and Administration		60	40	30	20	150	4+2
3.	Medical Ethics & Consumer Protection Act		60	40			100	4
4.	Current Procedural Terminology (CPT)		60	40	-	-	100	4
	Total		240	160	60	40	500	20

VIth Sem

S.NO	Subject Name	Paper Code	Theory Examination		Practical Examination		Total Marks	Credit
			Univ. Exam.	Internal Assessment	Univ. Exam	Internal Assessment		
1.	Health Information Management II, medical		60	40	30	20	150	4+2
4.	Health Insurance		60	40	-	-	100	4
2.	Medical Transcription & Telemedicine		60	40			100	4
3.	Hospital Accounting & Financial Accounting & Billing Design		60	40			100	4
	Total		240	160	30	20	450	18

Medical Record Technology
(SEMESTER-I)
Paper 1-
HUMAN ANATOMY AND PHYSIOLOGY

Total hours: 47

A, HUMAN ANATOMY

Unit-1
Anatomical
terminology and
Integumentary
system

- The position of the body;
- Anatomical planes;
- Term used in Gross Anatomy;
- Terms used in Embryology;
- Terms related to limbs, hollow organs and solid organs;
- Terms used for indicating the side and describing the muscle & movements
- Introduction, Structure and functions of integumentary system
- Superficial Fascia: Distribution of fat, functions.
- Deep Fascia: Features, , functions
- Modifications of deep fascia and applied anatomy in brief.

Unit-2
Musculoskeletal
system

- Definition, Classification and functions of bone; Parts, types of epiphyses, Blood supply of long bone,
- Classification, synovial joints in detail,
- Blood supply & nerve supply.
- Definition and Classification, Skeletal muscle in detail,
- Cartilage - Definition, types, structure
- Applied Anatomy of bones , joints and muscle in brief

Unit-3
Respiratory
system

- Identification of bones of thoracic cage
- Gross anatomy of respiratory system (parts, features and functions of trachea pleura and lungs)
- Surface marking of heart and lungs
- Applied anatomy in brief

Unit 4
Cardiovascular
system

- Gross anatomy of respiratory system (parts, features and functions of pericardium, heart)
- Brief about arterial supply of heart
- Applied anatomy in brief

Unit-5
Nervous system

- Classification of nervous system, Cell in the nervous system,
- Structure of a neuron, Structure of a typical spinal nerve
- Brief about cerebrum, spinal cord and cerebellum
- Applied anatomy in brief

Unit-6

Blood and lymphatic system

- Salient features of great vessels of heart.
- Classification and structure of blood vessels
- Structure of lymph node , Lymph vessels,
- Salient features of different Lymphoid tissue (tonsil, spleen ,thymus)
- Applied anatomy in brief

Unit-7

**1. Digestive system
2. Urogenital systems**

- Anatomy of digestive organs -oesophagus, stomach, intestine, liver, pancreas,
- Anatomy of the kidneys, Uterus, Urinary bladder
- Anatomy of the reproductive organs in brief :Testes, uterus, ovary ,fallopian tube
- Biliary system.
- Urethra
- Accessory reproductive organs

- Applied anatomy in brief

**Unit-8
Endocrine system,**

Organs of special sense

- Anatomy of Thyroid, Suprarenal Pituitary glands brief.
- Brief anatomy of eye , ear ,tongue
- Parathyroid and other minor endocrine glands in brief.
- Applied anatomy in brief.

B. HUMAN PHYSIOLOGY

Unit-1 Integumentary system,

- Structure and functions of skin, skin glands
- Body temperature , hyperthermia, Hypothermia
- Structure , properties & function of hairs, nails and other integments of body
- Structure and properties of epidermis, hypodermis and dermis

Unit-2 Musculoskeletal system,

- The skeletal muscle
- Mechanism of muscle contraction
- Smooth muscle
- Cardiac muscle
- Types and properties of different muscle
- Properties of skeletal muscle
- skeletal muscle disorder

Unit-3 Respiratory system,

- Transport of gases
- Mechanics of respiration
- Cardio respiratory response to exercise and effects of training.
- Alteration of pulmonary function –signs and symptoms of pulmonary diseases, asthma, ILD

Cardiovascular system,

Unit-4 Structure and function of heart, blood vessels

- Cardiac output
- Blood pressure
- Alteration of cardiovascular functions
- Heart failure , hypertension

Nervous system,

- Organisation of CNS & PNS
- Conduction of nerve impulse
- Synapse
- Hypothalamus and its role in body functions- obesity, sleep, memory
- Evoked potentials
- Disorders CNS
- Cerebellum & basal ganglia

Blood and lymphatic system,

- Blood, formation , composition
- Erythropoiesis
- Haemostasis
- Blood grouping, cross matching , Rh incompatibility
- WBC

- Anemia and clinical manifestations
- Thalassemia and haemoglobinopathies
- Jaundice
- Immunity
- Physiology of the lymphatic vascular structures, Lymph nodes,
- Tonsils and other mucosa-associated lymphatic tissue, Spleen and thymus.

Digestive system & Urogenital systems

Unit-6

- Physiology of the Mouth
- Salivary glands & Pharynx
- Physiology of Esophagus, stomach,
- Intestine,
- Digestion & absorption in stomach, Small intestine, pancreas & liver
- Kidney : structure & function
- Neural control
- Micturation - neural control
- Liver, biliary system & peritoneal cavity
- pancreas,
- Circulation of the skin- body fluid-electrolyte balance
- Neurogenic bladder

Unit-7 Endocrine system & organs of special sense

- Physiology of Thyroid, Pituitary gland , Parathyroid gland ,Suprarenal glands
- Reproductive system
- Physiology of Special Senses: Eye, Ear , skin, smell & taste.
- Pineal gland and organs with a minor endocrine function,

Medical Record Technology
(SEMESTER-I)
Paper 2-
CLINICAL AND GENERAL PATHOLOGY

Total hours: 50

General Pathology (Definitions, Terms and Examples)

- Unit-1**
1. Introduction to Pathology & Various branches of Pathology
 2. Definitions and terms used in Pathology – with examples. Cell injury – hyperplasia, Hypertrophy, Hypoplasia and atrophy.
 3. Inflammation and repair - Definition, Types with examples.
 4. Definitions and Classifications of diseases, Inflammatory diseases- viral, fungal and parasitic
 5. Degenerative diseases – Fatty degeneration, amyloid etc.
 6. Tumours – definition, etiology and classification
 7. Hemodynamic changes- Edema, Thrombosis, Embolism, Infarction, Necrosis and Gangrene – Definitions, Types and Examples
 8. Nutritional disorders- Causes and deficiency diseases - Vitamin A, B, C and D - Kwashiorkar, Marasmus and Obesity.

Clinical Pathology and Haematology (Brief Outline)

- Unit-2**
1. Normal composition of blood
 2. Diseases of RBCs, WBCs, and platelets
 3. Coagulation factors and disorders
 4. Blood groups and cross matching, Blood transfusion
 5. Urine composition: variation in common diseases, CSF and body fluids- tests done

Systemic Pathology (Definitions, Terms and Examples)

- Unit-3**
1. **Diseases of the Bone** – Osteomyelitis – Type and examples, Sequestrum, Involucrum, cold abscess, Pyogenic abscess, Osteoporosis, Arthritis (Stress on Rheumatoid and Osteoarthritis) and Fractures - Definitions & Examples.

Brief account on Tuberculosis of Bone and Spine, Tumours – Osteochondroma.

2. **Diseases of the Lung** – Pneumonia, Pleural effusion, Emphysema – Definitions, Types and Examples.
Brief note on TB Lung including primary complex, Lung tumours (Bronchogenic Carcinoma)
3. **Diseases of Paranasal Sinuses** – Sinusitis, Epistaxis – Cause, Nasal Polyps
4. **Renal System** – Congenital anomalies, Calculus, Hydronephrosis Tumours of the kidney and Bladder.
5. **GIT** – Achalasia cardia, Hiatus hernia, Causes of stenosis and Strictures of Oesophagus, Ca oesophagus, Gastric ulcer, Ca Stomach Duodenal ulcer, Pyloric stenosis, Leather bottle stomach, Ca Colon, Ulcers in the intestines
6. **Liver & Gall Bladder** – Gall Stones, Cholecystitis, Fatty liver, Cirrhosis, Ca Liver – Definition and brief account.
7. **Cardiovascular System** – Rheumatic heart disease, Myocardial infarction, Aneurysm of aorta, Pericardial effusion, causes of Cardiomegaly.
8. **Thyroid** – Goiter, Thyrotoxicosis – Definition causes and types, Carcinoma of Thyroid – Names

9. **Breast** – Fibroadenoma, Phylloides tumour, Carcinoma Breast, -
Brief account.
10. **Female Genital Tract** – Fibroid uterus, Ovarian tumours,
Carcinoma Cervix and Endometrium – Brief account.

Medical Record Technology
(SEMESTER-I)
Paper 3-
MEDICAL RECORD SCIENCE

Total hours: 45

- Unit-1**
- I. History of Development of Medical Records During different periods
- Early Ancient Times to Renaissance Period (16th & 17th Centuries)
 - 18th -20th Centuries and Till Date
 - In U.S.A.
 - At International Level
 - In India
- Unit-2**
- II. Characteristics of quality Medical Records:
- Definition, Characteristics of 'Good' Medical Record
 - Values of 'Good' Medical Record to various users
 - Required Characteristics of entries in medical Records
 - Responsibility for Medical Record Quality
 - 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

Medical Record Technology

(SEMESTER-I)

Paper 4-

Communication skill and personality development

Total hours: 50

Listening Comprehension

Unit-I

- Speeches
- Interviews
- audio-video clippings followed by exercises
- Introduction to Communication
- Importance of Communication
- Barriers to Communication and ways to overcome them

Conversation Skills

Unit-II

- Greetings and Introducing oneself
- Framing questions and answers
- Role play
- Buying: asking details etc
- Word formation strategies
- Vocabulary building: Antonyms, Synonyms, Affixation, Suffixation, One word substitution

Reading Comprehension

Unit-III

- Simple narration and Stories
- Newspaper and articles clippings
- Sentence types
- Note Making
- Paragraph Writing
- Comprehension
- Report Writing: types, characteristics

Pronunciation

Unit-IV

- Pronunciation
- Syllable and Stress
- Intonation and Modulation

Writing Comprehension

Unit-V

- Letters: types, format, style
- Précis Writing
- Paragraph: Order, Topic sentence, consistency, coherence
- Report and Proposal
- Project Writing: Features, Structure

Medical Record Technology
(SEMESTER-II)
Paper 1-
MICROBIOLOGY, BIOCHEMISTRY

Total hours: 50

- Unit-1**
- Introduction to Microbiology,
 - General characteristics of Bacteria, Virus, Fungi, Parasites
 - General introduction of instruments-Hot air oven, Autoclave
 - Safety measures in Laboratory
- Unit-2**
- Sterilization and Disinfection-Importance, Types, General methods for physical and chemical sterilization
 - Cultivation and identification of common pathogenic bacteria- Staphylococcus, Streptococcus, E.coli, Salmonella.
- Unit-3**
- Immunity- definition and types
 - Hypersensitivity-Definition and types
 - Healthcare personnel vaccination
- Unit-4**
- Normal flora of human body
 - Common characteristics of Pathogenic organisms-Klebsiella, Pseudomonas, Entamoeba histolytica, Giardia, Candida
- Unit 5**
- Chemistry of the human body fluids in health and diseases
 - Cerebrospinal fluid
 - Definition, Pathway, Functions, Lumber Puncture
- Unit-6**
- Clotting mechanism of the blood,
 - Enzymes produced in the G.I.Tract
- Unit-7**
- Vitamins, Hormones, Proteins and Non-proteins, Nitrogenous substances,
 - lipids,
 - carbohydrates,
- Unit 8**
- Electrolytes
 - Metabolism,
 - Acid-base balance,
 - Normal values
 - Ranges of biochemistry investigations

Medical Record Technology
(SEMESTER-II)
Paper 2-
PHARMACOLOGY

Total hours: 45

- Unit-1**
- Introduction to pharmacology**
 - General and Local anaesthetics**
 - Hypnotics and Sedatives**
- Unit-2**
- Narcotic analgesics**
 - Narcotic antagonists**
 - Non-narcotic analgesics**
- Unit-3**
- Antipyretics**
 - Benzodiazepines**
- Unit-4**
- Drugs acting on autonomic nervous system**
 - Alpha blocker
 - Beta blocker
 - Antihistamines**
 - PPI**
- Unit-5**
- Bronchial Asthma**
 - Antihypertensive drugs**
- Unit-6**
- Diuretics**
 - Hormones**
 - Corticosteroids
 - Oral Contraceptive
- Unit 7**
- Chemotherapy**
 - Penicillin Group
 - Cephalosporin
 - Anti Tubercular
 - Anti Helmintics

Medical Record Technology
(SEMESTER-II)
Paper 3-
FORENSIC MEDICINE

Total hours: 45

- Unit-1** ➤ Medico-legal cases
 - Definition
 - Types

- Unit-2** ➤ Medico-legal aspects of different Medico-legal cases

- Unit-3** ➤ Documentation of Medico-legal cases

- Unit-4** ➤ Handling of Medico-legal documents

Medical Record Technology
(SEMESTER-II)
Paper 4-
Medical Terminology I

**Total
hours: 45**

- Unit-1** **I. 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
 - Phobias
- Unit-2** **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
- Unit-3** **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

Unit-4 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

Unit-5 V. Integumentary System

1. Pathologic Conditions
2. Fungal, Viral and Parasitic Infections
3. Hereditary, Congenital and Developmental Disorders
4. Symptomatic Terms
5. Diagnostic Terms
6. Oncology Terms
7. Operative Terms
8. Laboratory Tests and Procedures

Medical Record Technology
(SEMESTER-II)
Paper 4-
Fundamentals of computer science

Total hours: 45

- 1 Introduction about computers**
What are Computers? Its various characteristics, applications and limitations.
Functional Block Diagram of computer.
Computer Architecture: Classification of computer on basis of Purpose, signal and size and portability.
Evolution of computer from 1st generation to fourth generation. Some description about fifth generation.
Data representation in memory.

- 2 Hardware:**
To study the various input devices used: Keyboard, mouse, OMR, OCR, MICR, BCR, Scanner etc.
To study the internal structure of CPU: Registers, ALU, Motherboard, HD, Memory, Cache, and Virtual Memory.
TO study the various Secondary storage devices: Magnetic Disk, Optical Disk, Flash memory

To cover what are Monitor, Its types, Printer: Dot matrix, Daisy wheel. Line printer, Laser printer, Thermal Printer, Ink Jet printers etc.

- 3** To cover the types of Software, Languages and their types (High level and low level language.) To cover the definition of operating system, its types and what are the various functions and types of operating system.
Basic introduction about Interfaces: its types character user and graphical user interface (DOS and Windows)
Basic introduction about linux, Unix operating system
To study the various HTML tags (Bold tags, Italic, Underline, Marquee, Img, anchor etc.)

- 4 Network:**
Data Communication,
Structure of Universal Resource Locator, Domains (.com, .in, .country specific, .org and rationale behind them),
HTTP
Practicals: TO cover the various MS Excel Formulas and preparation of spreadsheets.
Basics of E-mail, Web browsers (IE, Google Chrome, Mozilla),

LAN, LAN topologies, WAN, MAN, Internet: Introduction, Internet, extranet and Intranet.
Network devices (Hub, Switches, Modems, Routers etc), DNS, Network Security and Search Engine
IP address, Structure of IP Address
Backbone network, Network connecting devices,

Medical Record Technology
(SEMESTER-III)
Paper 1-
Bio-Statistics

Total hours: 50

- Unit-1**
- Statistics and Biostatistics
 - Definition
- Unit-2**
- Frequency Distribution:
 - Measures of Central Tendency – Arithmetic Mean,
 - Median and Mode for un-grouped and grouped data
- Unit-3** Presentation of data:
- Bar diagram,
 - Pie Diagram,
 - Histogram,
 - Frequency polygon
 - Frequency curve, and Line diagram.
- Unit-4**
- Measures of Variation:
 - Range,
 - Inter Quartiles,
 - Mean Deviation,
 - Standard Deviation Co-efficient of Variation
- Unit 5**
- Sampling-
 - Definition: Population and simple Sampling,
 - Simple Random Sampling,
 - Stratified Random Sampling,
 - Systematic Random Sampling and Cluster Sampling

Medical Record Technology
(SEMESTER-III)
Paper 2-
Medical Terminology II

**Total
hours: 50**

- Unit-1** I. The Cardiovascular System
1. Pathologic Conditions
 2. Hemorrhages and related Conditions
 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
- Unit-2** II. The Respiratory System
1. Pathologic Conditions
 2. Symptomatic Terms
 3. Diagnostic Terms
 4. Oncology Terms
 5. Operative Terms
 6. Laboratory Tests and Procedures
 7. Standard Abbreviations
- Unit-3** III. The Gastro-Intestinal System
1. Pathologic Conditions
 2. Hereditary, Congenital and Developmental Disorders
 3. Symptomatic Terms
 4. Diagnostic Terms
 5. Oncology Terms
 6. Surgical Procedures
 7. Laboratory Tests and Procedures
 9. Standard Abbreviations
- Unit-4** IV. The Genito-Urinary System
- (A). Urinary Tract
1. Pathologic Conditions
 2. Hereditary, Congenital and Developmental Disorders
 3. Symptomatic Terms
 4. Diagnostic Terms
 5. Oncology
 6. Surgical Procedures
 7. Laboratory Tests and Procedures
 8. Standard Abbreviations
- (B) Male Reproductive Organs
1. Hereditary, Congenital and Developmental Disorders
 2. Sexually Transmitted Disorders (STD)
 3. Symptomatic Terms, Diagnostic Terms, Operative Procedures
- (C) Female Reproductive Organs
1. Hereditary, Congenital and Developmental Disorders
 2. Sexually Transmitted Disorders (STD)
 3. Symptomatic Terms
 4. Diagnostic Terms, Operative Procedures
 6. Laboratory tests and Procedures

Unit-5 V. The Endocrine System (Pituitary-Anterior & Posterior: Hypothalamus; Thyroid; Parathyroid; Adrenal-Cortex and Medulla; Pineal body; Pancreas; Gonads-Ovaries & Testes & Thymus)

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

Unit-6 VI. The Nervous System

(A). Neurological Disorders

1. Pathologic conditions
2. Hereditary Congenital and Developmental Disorders
3. Circulatory Disturbances
4. Other Organic Abnormalities
5. Oncology
6. Diagnostic Terms
7. Surgical and other Procedures
8. Laboratory Tests and Procedures

(B). Psychiatric Disorders

1. Psychiatric Disorders
2. Other Descriptive and Diagnostic Terms
3. Various Tests
4. Treatment Methods for Psychiatric Conditions

Unit-7 VII. The Sensory Organs

(A). Sense of Vision

1. Pathologic conditions
2. Hereditary, Congenital and Developmental Disorders
3. Diagnostic Terms
4. Operative terms
5. Oncology
6. Vision Tests and Procedures

(B). Sense of Hearing

1. Pathologic condition
2. Hereditary, Congenital and Developmental Disorders
3. Oncology
4. Surgical Procedures
5. Hearing Tests.

(C). Sense of Smell 1. Pathologic and Other terms 2. Laboratory Tests (D). Sense of Taste

1. Pathologic and Other terms

(E). Touch and Other Cutaneous Senses

1. Terms referring to these senses

Unit-8 XII Multiple-System Diseases

1. Inflammations and Infections
2. Symptomatic Terms
3. Diagnostic Terms
4. Laboratory Tests and Procedures

Medical Record Technology

(SEMESTER-III)

Paper 3- Information Technology for MRT

Total hours: 50

Unit-1 The Internet

- Define the Internet How the Internet works Internet capabilities and limitations
- How to connect to the Internet via modem ISDN, etc.
- Navigate the World Wide Web
- Identify services and tools offered on the Internet Use services and tools offered on the Internet
- Explain book marks Safety

Email :

- Define electronic mail Compose electronic messages
- Send electronic messages using appropriate format
- Transmit document using electronic mail system

Basic knowledge of networks

- Explain communications standards Describe network structures
- Explain network types and protocols Explain network connectivity
- Explain the function of servers in a graphic network Describe various network operating systems
- Explain the difference between network software and individual use software
- Use a network to access, file, and store files

Information processing activities

Unit-2

- Key, process, print and store text and data information using integrated software
- Troubleshoot basic computer malfunctions Load media devices Set up print devices
- Operate scanner devices Operate Print devices
- Maintain print devices Monitor peripheral equipment operations Operating Systems
- Identify operating systems and their attributes (i.e., DOS, 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 24 Demonstrate basic computer literacy.
- Create directories/folders and sub-directories Format disks Manipulate files (copy, rename, delete)
- Keyboard proficiently by touch Computer File Manipulation
- Create data directory and subdirectories/folders and place files in subdirectories/folder.
- Copy, rename, move and delete files. Copy a disk. Make backup disks/files of a data directory or Subdirectory/folder and delete data from backup disks/files
 - a) Personal computer systems
 - Monitor system status and performance Run diagnostics Report computer system malfunction(s) Report software malfunction(s) Maintain security Perform backup procedure(s) Perform preventive maintenance Follow log-

- off and power-down procedure(s) Follow equipment maintenance procedures
- Follow quality control procedures
- b) Maintain computer security requirements Follow security rules, regulations, and codes Implement security procedures
- c) Software applications
 - Define software types and functions Describe need for application software
 - Describe different types of software applications Explain advantages and disadvantages of integrated and dedicated software
 - Explain software copyright laws Explain data compression techniques
 - Explain use of passwords/security Utilize desktop productivity tools
 - Operation of peripheral devices
 - Identify peripherals and operating requirements of each Explain purpose of input devices (e.g., keyboard, mouse, scanners, pens, bar code readers, credit/debit/smart cards, voice, video, gloves)
 - Describe operation of output devices (e.g. voice, speaker output devices, printers, plotters, printer sharing units, SCSI interface, video display) Describe operation of multimedia (video, audio sound)
 - Information Processing Cycle
 - Describe difference between data files and program file

- Database :
- Define database Explain terms used in database systems
 - Describe common functions of database systems Use database to create, input, edit, and display fields and records Analyze structure of database
 - file Perform calculations with a database file Alter structure of database file Sort records based on multiple fields
 - Identify advanced database technology Use appropriate reference materials Utilize relational database Enter elements into database Proofread database
 - Explain database Design report formats Transfer data to and from remote database Print reports using data from multiple databases
 - Use database files with other application software Verify accuracy of output (e.g., edit reports)
 - Basic Data Processing :Input, update and store data into records in an existing database Open stored spreadsheet, input and update data into spreadsheet, store revised spreadsheet and print revised spreadsheet
 - Database and Spreadsheet Operations
 - Plan and create database, input and update data into records, store database and print quick reports from database. Create spreadsheet, input data into spreadsheet, update data in spreadsheet and store spreadsheet.

- Introduction to Spread sheet packages
- Introduction to Word Processing packages
- Document processing Key, print and store merge documents (form letters, mailing labels and envelopes) 26 Scan documents onto a formatted storage medium and import into a word processing program Locate and retrieve information from
 - a variety of electronic sources Prepare, place and send information on the internet Key, Print and store transparency masters for presentation from legible longhand or edited rough draft using presentation software.

Unit-5 Basic Computer Concepts and Applications

- Explain how data is stored in main computer memory
- Explain how computer system executes program instruction Explain computer storage capacity
- Explain how data is represented Describe data storage devices Identify types of memory Describe back-up and archival disciplines Merge a database application and a spreadsheet application with a word processing document. Use available software to input personal, business, and organizational names in proper indexing order, and produce an alphabetical list.
- Integrate database, spreadsheet and graphic files Convert documents from one system to another.
- Demonstrate use of computer thesaurus Use multimedia techniques/resources Perform merge functions

Hospital Information System (HIS) with Electronic Medical Records (EMR).

Medical Record Technology

(SEMESTER-III)

Paper 3- Medical Record Sciences

Total hours: 45

- Unit-1**
- III. Medical Records for different patient encounters with health care facility
- i. Ambulatory Care Records {Emergency & Outpatient Records}
 - ii. Clinical Records in Long Term Care and Rehabilitation Facilities
 - iii. Mental Health Records
- IV. Filing Methods, Storage, and Retention
- Numbering and Filing Systems
 - Filing
 - Storage- Microfilming and Disk Storage
 - Retention
 - Registers & Indexes
 - Record movement control & Tracking system
- V. Organizational Aspects of Medical Record Department/Services
- Policies
 - Functions
 - Location, Space and Layout
 - Equipment
 - Forms Designing and Control
 - Medical Records Flow and Processing
- Unit-2**
- VI. 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
 - Flow of Records following Admissions
 - Advantages of good Admitting Policies and Procedures
 - Pre-requisites for smooth & efficient functioning of the Centralized Admitting Services
- VII. Medical Record Department Management
- i. Planning, Organizing, Directing and Controlling
 - ii. Personnel
 - iii. Principal Responsibilities and Duties of the Medical Record Administrator/Director
 - iv. Tools of Management in the Hands of the Medical Record Administrator/Director

VIII. Intradepartmental and Interdepartmental Relationships

- i. Developing Intradepartmental Relationship
- ii. Developing Interdepartmental Relationships with various Departments of the Hospital

IX. Quality Management

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

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

- i. Incomplete Record Control
- ii. Inpatient census and rates computed from it.
- Unit-3** iii. Ambulatory care statistics
- iv. Long term Care Statistics
- v. Processing and reporting of Reproductive Health Statistics
- vi. Reporting of Notifiable Diseases to Public Health Authorities

XI. Nomenclatures and Classification Systems:

- Unit-4** 1. Standard Nomenclatures of diseases (SNDO).
- 2. Current Medical Information Terminology.
- 3. Systematized Nomenclature of Pathology (SNOP)
- 4. Systematized Nomenclature of Medicine (SNOMED)
- 5. Common Procedures Coding System (HCPCS)
- 6. Current Procedural Terminology
- 7. International Classification of Functioning, Disability and Health (ICF)
- 8. Case-Mix Classifications
- 9. Diagnosis Related Groups
- 10. ICD – 9 (CM)
- 11. ICD – 10
- 12. ICD- Oncology (ICD - O)

Medical Record Technology
(SEMESTER-III)
Paper 4-
ENVIRONMENTAL SCIENCE

Total Hours : 50

1. The Multidisciplinary nature of environmental studies
2.
 - Definition, scope and importance.
 - Need for public awareness
3. Natural Resources
Renewable and non-renewable resources: Natural resources and associated problems
4. Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.
5. Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams benefits and problems.
6. Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.
7. Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.
8. Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources. Case studies.
9. Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.
10. **Unit 2:**
Ecosystems
Concept of an ecosystem.
Structure and function of an ecosystem.
Producers, consumers and decomposers.
11. Energy flow in the ecosystem.
Ecological succession.
Food chains, food webs and ecological pyramids.
12. Biodiversity and its conservation
Hot-spots of biodiversity.
Threats to biodiversity : habitat loss, poaching of wildlife, man-wildlife conflicts
Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity
13. **Unit 3:**
Environmental Pollution
Definition, causes, effects and control measures of:-
14.
 - a. Air pollution
15.
 - b. Water pollution
16.
 - c. Soil pollution

17. d. Marine pollution
18. e. Noise pollution
19. f. Thermal pollution
20. g. Nuclear hazards
21. Solid waste Management: Causes, effects and control measures of urban and industrial wastes.
22. Fireworks, their impacts and hazards
23. Pollution case studies.
24. Disaster management: floods, earthquake, cyclone and landslides.
25. **Unit 4 :**
Social Issues and the Environment
From Unsustainable to Sustainable development
26. Urban problems related to energy
Water conservation, rain water harvesting, watershed management
27. Resettlement and rehabilitation of people; its problems and concerns. Case studies.
28. Environmental ethics: Issues and possible solutions.
Consumerism and waste products.
Environmental Legislation (Acts and Laws)
29. Issues involved in enforcement of environmental legislation
Human Population and the Environment
30. Population growth, variation among nations with case studies
Population explosion – Family Welfare Programmes and Family Planning Programmes
31. Human Rights.
Value Education.
Women and Child Welfare.

Medical Record Technology

(SEMESTER-IV)

Paper 1- Health Information

Total hours: 46

- 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.

Unit-1

- Enhancing individual patient care through timely and relevant information is one of the primary goals for the Health Information Management Technology.

Unit-2

- **Unit-3** Nomenclature, Introduction to Nomenclature, Early Nomenclature, Specialty Nomenclature, other classification

Medical Record Technology

(SEMESTER-IV)

Paper 2- Hospital Statistics

Total hours: 45

- Unit-1** • 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. VITAL STATISTICS : Definition and Uses of Vital statistics • Methods of Collection of Vital Statistics • Formulae for processing Vital Statistics: Crude Rates Specific Rate
- Unit-2** Mortality Rates – Crude Death Rate, Specific Death Rates with respect to age , sex etc. Cause-of-death Rates; Infant Mortality Rates; Neonatal Mortality Rates Post-Neonatal Mortality Rate or Late Infant Mortality Rate
- Unit-3** IV. Health Statistics i. Introduction ii. Uses and Sources iii. Collection of hospital statistical data: Birth,Death,fetal death,live birth and immature infants,reporting,determination of basic data,daily analysis of hospital service,discharge analysis procedure,cumulative method,monthly and annual reports,computation of percentage (ratios) inpatient census and bed occupancy rate (computerized and manual), presentation of hospital data. iv. Criteria of ill health v. Classification of healthy and sick vi. Measurement of morbidity
- Research Methods:
- Unit-4** 1) Research in medicine and health care
2) Clinical research and clinical trials
3) Health record data in research
4) Research process
a) Defining the research question (problem)
b) Determining a research design and method
c) Data collection procedures
d) Data analysis
e) Presenting results
f) Publishing researcher
g) quality improvement and the use of aggregate data
h) The role of HIM professionals in quality improvement programs
i) Collecting data through questionnaire and Record forms, Methods of collecting data, literature review and steps in research methods

Presentation of Data – Bar Diagram; Pie Diagram; Histogram; Frequency, Polygon, Frequency Curve; Cumulative Frequency Curve and Line Diagram.

Uses of Medical Records:

Patient

Physician

Institution

Health Authority

Definition of Medical Records

Characteristics of good MR

Major functions of MR

Type of record:

1. OPD Record
2. Filing Record
3. Numbering Record

Medico Legal Record

Medical Record Committee

Retention of Records

Computerisation of Medical Record

Census Discharge Analysis

Assembling of Record and Deficiency check

Patient order

Coding

Indexing

Filing

Vital and Health Statistics

Compilation of health statistics

Correspondence

Medical Record Technology

(SEMESTER-IV)

Paper 3-

Principles of Health Management

Total hours: 50

- Unit1** Basic management concepts, functions and managerial process, managerial skills and competencies History, evolution and recent development in management theories: classical, non- classical and modern continuing management themes- quality management, learning organization. Application of management concepts to healthcare organizations.
- Unit-2** Planning: meaning and nature of planning, types of plans, steps in planning process: Objectives: meaning, setting objectives- MBO method: concept and process of managing by objectives: strategy: definition, level of strategies: Policies: meaning, formulation of policies; programmes; Decision making, steps in decision making, approaches to decision making, types of decisions and various techniques used for decision making.
- Unit-3** Organizing: organizing as managerial function- organization structures- functional, divisional, matrix, team structure, network structure, boundary less structure. Organising- chain of command, span of control, delegation and decentralization, organizational design, hospital organizational structure and its nature. Leadership- meaning, styles and theories.
- Unit-4** Motivation- concept, theories of motivation. Health management control: concept and process, types of control, feed forward, concurrent and feedback controls: and overview of controlled technique – managerial ethics and social responsibilities in healthcare.

Medical Record Technology
(SEMESTER-IV)
Paper 4-
Hospital Planning and Organization

Total hours: 45

- Unit1** **Definition of a Hospital** (including difference of hospital from other business organization, classification of hospitals, Overview of various types of speciality-clinical and supportive services required in a hospital depending on its size), Planning a new hospital- Principles guiding planning, steps of planning (including feasibility report, detailed project report and market survey), Financial planning/ equipment planning, Operation/ functional/ master plans, Permanent hospital organization.
- Designing:**
The Design tem- constituents, how to choose it and function of all members, Design development (drawings- small scale, working), (documents- specifications/ tender), (site/plan, bed distribution), Principles/ general features of
- Unit-2** planning, preparing for operational readiness, Commissioning, Inauguration, Various process of architecture.
- Organization:**
Definition, Four aspects of an organizational design, Purpose of an organization, constituent element of an organizational structure, Various designs of
- Unit-3** organization structure or Organizational charts, Dual line of authority, The Organization triad, Delegation of authority or span of management, Role of various committees in a hospital, Roles and responsibilities of a hospital CEO.
- Disease Management:**
- Unit-4** Basics of disaster management and Mass casualties, Phases of a Disaster, the concept of Triage in a Disaster, Disaster Preparedness- pre hospital and hospital plan. Disaster alertness in hospital, Disaster management planning, organization and implementation.

Medical Record Technology

(SEMESTER-IV)

Paper 5-

Legal Issues in Health Care

Total hours: 45

Unit1 Introduction to Medical Jurisprudence - Medical Ethics, Hippocratic Oath, Code of Medical Ethics, Professional secrecy, Privileged communication

Unit-2 • Legal Procedure in India

Unit-3 • Consent in Medical Practice - Types, Forms, Informed consent, Importance.

Unit-4 • Laws in Relation to Medical Records - Right to Information Act, Release of information to Patient/ Relatives/ Authorised person/ Agencies

Medical Record Technology

(SEMESTER-V)

Paper 1-

International Classification of disease (ICD-10) & Surgical Procedures (ICD9CM)

Total hours: 50

- Coding of final diagnosis and secondary diagnosis. Disease and operation nomenclatures,
International Classification of Disease 10,
Unit1 International Classification of Disease – 9CM indexing of patient care data.
- Introduction and usage of International Classification of Disease in practicals.
- Unit-2** International Classification of Diseases
ICD-10, ICD-9 CM (Surgical Procedures)
CPT – Current Procedural Terminology (Introduction)
HCPCS – Healthcare Common Procedure Coding System (Introduction)
- Unit-3** ICD-10 - Alpha-numeric coding Volume 1 – Tabular list Volume 2 – Instruction manual Volume 3 – Alphabetical Index
Classification of Diseases according to Clinical Pertinence
- Unit-4** ICD-9CM (Procedure) coding – International
- Unit 5** Classification of Diseases – Clinical modification
CPT – Introduction of CPT and HCPCS – 3 levels of codes

Medical Record Technology

(SEMESTER-V)

Paper 2-

Hospital Organization and Administration

Total hours: 45

- Unit1**
- 1.Introduction to Hospital Administration
 - a) Who's Who in hospital – Key administrators and their functions, overview
 - medical and para-medical specialities, main service departments: b) Overview of health
 - services – government services: private & not for profit: primary, secondary & tertiary
 - health care: types of hospital: community, super – speciality 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
 - 4.Clinical Services
 - a) Overview of clinical departments and services – OPD, In-patients, ICU, Surgical,
- Unit-2**
- 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.
 - 34 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

Unit-3

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 GS
- Office

10.Hospital Infrastructure (Buildings and Plant)

- a) Civil Engineering – Planning and maintaining buildings, water & sewage b) Electrical

Unit-4

- Engineering c) Mechanical Engineering, Equipment Maintenance, Medical Gases, etc
- 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

Medical Record Technology
(SEMESTER-V)
Paper 3-
Medical Ethics & Consumer Protection Act

Total hours: 45

Structure of Indian Judicial System:

Subordinate courts- Various Tribunals- High court and Supreme court- their working relationships and effect of orders.

Unit1

Medico- legal cases:

IPC – Medical Termination of Pregnancy Act 1971, Transplantation of Human Organs Act.

Law of Contract:

Patient as a consumer- Law of Tort- Composition of D.C.D.R.F.S.C.D.R.C and N.C.D.R.C- powers, terms and jurisdiction, enforcement of orders.

Medical Negligence:

Negligence- Medical Negligence- Contributory Negligence- Cross Negligence- Criminal Negligence- Onus of Proof- Prevention of such Negligence.

Liability and Compensation:

Vicarious Liability- Liability of Medical Professionals and Para- medical staff- Quantum of Compensation- Applicability of provisions of Consumer Protection Act for various institutions.

Unit-2

Consumer Protection Act 1986:

Various provisions- structure, power and jurisdictions of various forums constituted in C.P Act- Orders- how enforced.

Consent:

Consent- Medical Consent- Various types of Consent- Consent forms- “informed consent” in clinical trials- Consent as process- full proof methods for proper Consent- various defects in obtaining Consent.

Important case studies:

District Forums, State Consumer Disputes Redressal Commission- National Consumer Disputes Redressal Commission Case study as how cases were decided.

Medical Record Technology

(SEMESTER-V)

Paper 4-

Current Procedural Terminology (CPT)

Total hours: 45

Unit1

1. Introduction to the CPT Coding Manual Learn about the CPT coding manual and the requirements for applying CPT codes to medical services and procedures.

2. Modifiers, Symbols, and Sections of CPT

The CPT has six sections. Find out why the CPT book is divided into sections. A modifier changes the meaning of the CPT code. Find out how.

3. Evaluation & Management CPT Section

Visits made to a doctor are made up of a five digit CPT code. This code explains to an insurance company the severity of the patient's visit.

4. Anesthesia Section

When a patient has surgery, anesthesia is provided by an Anesthesiologist or another healthcare provider. Modifiers are applied to the codes found in this section to inform the insurance carrier of special circumstances. CPT codes found in the Medicine Section are also discussed in this lesson.

5. Surgery & the Surgical Package

Did you know that some services are bundled into a surgery code? Find out the importance of bundling and unbundling in the lesson.

1. General & Integumentary CPT Section

Diseases of the skin sometimes require detailed surgery or procedures. An injection to aspirate a cyst or lesion is considered a surgery.

Unit-2

Explore keywords in this section to help you code the correct procedure(s) involving the skin.

2. Musculoskeletal System CPT Section

Find out why you are unable to code for strappings and casts when a patient is treated for fracture care. You will also get detailed information about coding surgery relating to the muscles and skeletal structures.

3. Respiratory CPT Section

Common procedures in the Respiratory System are found in this lesson. Learn to code bronchoscopies, nasal endoscopies, and much more

4. Cardiovascular CPT Section

The Cardiovascular System is a complex system as is coding for surgeries and procedures involving the heart and related structures. Other services related to the heart are found in the Medicine Section and will also be discussed in this lesson.

5. Digestive system CPT Section

This lesson focuses on coding endoscopies of the gastrointestinal tract. Endoscopies in this section are for the upper and lower GI system. We will also explore coding for hernia repair and appendectomies.

Unit-3

1. Urinary CPT section
Coding for urinary procedures and surgeries will be discussed in this lesson.
Kidney-related procedures are covered in this lesson.
Codes from the Medicine Section will also be a topic of this lesson.

2. Male and Female Genital CPT Section

3. Maternity CPT Section
Find out how to code for deliveries in this lesson. Have you ever wondered how doctors get paid for multiple births?

4. Nervous System CPT Section
This lesson covers surgery on the brain and spine (nervous system).

5. Radiology and Pathology CPT Sections
Coding for x-rays, CT scans, and other radiographs are covered in this lesson.
Lab/Pathology is also a part of this lesson

Medical Record Technology
(SEMESTER-VI)
Paper 1-
Health Information Management II

Total hours: 45

Development of Health Care Information:

Unit1

Health Care Information standards, Paper based Health Records, Computer based patient records, Ethical Issues in Health Information Management.

Comparative Data:

Unit-2

Research methods, Clinical quality management

Management of Health Information Services:

Unit-3

Principles of Management and Leadership, Work Design and Performance improved, Human Resources Management, Training and Development, Project Management, Strategic Management.

Medical Record Technology

(SEMESTER-VI)

Paper 2- Health Insurance

Total hours: 45

Unit-1 Insurance- Meaning, principles, types of insurance and their importance. Health Insurance- need, present scenario healthcare sector, factors affecting the growth of health insurance sector in India. Role of IRDA as a regulator on health insurance sector.

Unit-2 Operations and distribution of Health Insurance: Health Insurance plans and segmentations, re- insurance, underwriting, actuary, Distribution channels in health insurance- online v/s offline mode of distribution, insurance brokers and agents, banking outlets.

Unit-3 Third Party Administration (TPA): Origin of TPA, role of TPA as mediator, functions of TPA, process of claim administration, prerequisites to become TPA.

Unit-4 Health Insurance plan Formulation and Evaluation: agenda setting the formulation of health insurance plan in India, problems faced during the implementation of health insurance plan, analysis and evaluation of health insurance plan.

Medical Record Technology
(SEMESTER-VI)
Paper 3-
Medical Transcription & Telemedicine

Total hours: 45

Medical Transcription:

Unit1

- Basics of Medical Transcription
- Objectives of Medical Transcription
- Rules of Medical Transcription
- Advantages of Medical Transcription
- Divisions of Medical word into their component parts
- Forms, Suffixes, Prefixes and Terminology
- Laboratory tests, Clinical procedures and Abbreviations

Telemedicine:

Unit-2

- Basic health care
- Classification of Telemedicine
- Technology of Telemedicine
- Objectives of Telemedicine
- Rules of Telemedicine
- Telemedicine Act
- Merits of Telemedicine
- Future Telemedicine plans
- Research

Medical Record Technology

(SEMESTER-VI)

Paper 4-

Hospital Accounting & Financial Accounting & Billing Design

Total hours: 50

The Nature and purpose of Accounting, Accounting Concepts and Accounting records

Unit1

- a. What is accounting information? Who needs it? Why they need or expect?
- b. What do accountants do?
- c. Single Entry Book- keeping
- d. Double Entry Book- keeping
- e. What is an Accountant? Making entries.
- f. Five types of Accounts (Income, Expense, Assets, Liability, Capital)
- g. Book- keeping rules
- h. Accounting books? ledgers (Normal, Purchase, Sales, Journal, etc)
- i. Dealing with cash, imprest system

Preparation of various Financial Statements:

Unit-2

- a. Trial Balance
- b. Receipts and Payments
- c. Income and Expenditure Account
- d. Balance Sheet

Fixed Assets and Depreciation:

Unit-3

- a. What are fixed assets and why are they different?
- b. What is depreciation and why do we need it?
- c. How do we calculate depreciation? (pros and cons of different method)
- d. Accounting entries for depreciation.

Coding and Pricing:

Unit-4

- a. Financial accounting Vs Cost accounting
- b. Key terms: Direct/indirect, fixed/variable/semi- variable
- c. Analyzing results: Standard/budgeted/actual
- d. Costing hospital services
- e. Taken action: controllable/uncontrollable
- f. Making decisions: Marginal/book/out- of pocket costs
- g. Reporting costs: Costs Centers, allocation and apportionment of costs
- h. Pricing methods and decisions

Unit 5 Inventory Accounting:

- a. Inventory/stocks
Valuation (FIFO, LIFO, WAC, etc)
Optimum balance and reorder levels

Analysis of Financial Statements:

- a. Ratio analysis- meaning and purposes
- b. Ratios applicable to Non- profit making organizations

Financial Planning and Control:

- a. Budgets and Budgetary control

Unit 6 Use of Computers in Accounting:

- a. Computerized ledger systems
- b. Spreadsheets and excel based accounting

Accounting and Audit Procedures in Health Care Sectors:

- a. Accounting system in hospital
- b. Purpose of an audit and auditing principles
- c. What the auditor does?
- d. The audit report- "True and Fair view"
- e. Legal requirements: layout, audit and filing of accounts