MAHARASHTRA STATE BOARD OF VOCATIONAL EDUCATION EXAMINATION, MUMBAI -51		
1	Name of Course	**Diploma Course in Medical Records Technology (2020-2021)**
2	Course Code	201422
3	Max.No.of Students Per Batch	25 students
4	Duration	2 years
5	Type	Full time
6	No.Of Days / Week	6 Days
7	No.Of Hours /Days	7 hrs
8	Space Required	Theory Class Room – 200 sqft, Lab Sub.– 400 sqft, **Total = 200 sq. ft + 400 sq.ft. = 600 Sq.Ft.** 1) IT Lab – 400 sqft (either at hospital or at institute) OR 2) MOU with Hospital having MRD department Distance between hospital and Institute Should not be more than 20Km.
9	Minimum Entry Qualification	HSC pass
10	Objective Of Course	1) Function as a Medical records technician under the supervision of the Manager or Hospital Administrator.2) Understand the process of capturing and collecting correct patient data. 3) Apply knowledge & skills to give safe & effective patient care requiring hospitalization. 4) Understanding of relevant computer application and software for maintaining and retrieving the patients medical records. 5) Application of data analysis and medical billing knowledge
11	Employment opportunity	1) Technician in Medical records department of Hospital *2) TeamLeader/Supervisor- Healthcare BPO or KPO*
12	Teachers qualification	For vocational subject- Medical graduate with MHA with one years of experience or Non- medical graduate with MBA in hospital administration with 3 years of working experience or Diploma in Medical records science with 5 years of working experience in Medical records department.

13 Teaching Scheme – First Year

Sr No	Subject	Subject	Clock Hours/Week		
		Code	Theory	Practical	Total
1	English (Communication Skill)	90000001	2 hrs	1 hrs	3 hrs
2	Elective-I	-	2 hrs	1 hrs	3 hrs
3	Elective-II	-	2 hrs	1 hrs	3 hrs
4	Medical Terminology	20142211 20142221	3 Hrs	8 Hrs	11 Hrs
5	Bio Statistics and Hospital Statistics	20142212 20142222	3 Hrs	8 Hrs	11 Hrs
6	Medical Records science	20142213 20142223	3 Hrs	8 Hrs	11 Hrs
Total					42 Hrs

Teaching Scheme – Second Year

Sr No	Subject	Subject	Clock Hours/Week		
		Code	Theory	Practical	Total
1	English (Communication Skill)	90000001	2 hrs	1 hrs	3 hrs
2	Elective-I	-	2 hrs	1 hrs	3 hrs
3	Elective-II	-	2 hrs	1 hrs	3 hrs
4	Medical Coding & Billing	20142214 20142224	3 Hrs	8 Hrs	11 Hrs
5	Medical Ethics, Medical Jurispendences, Medical Toxicology	20142215 20142225	3 Hrs	8 Hrs	11 Hrs
6	Informatics and Health Information Management	20142216 20142226	3 Hrs	8 Hrs	11 Hrs
Total					42 Hrs

14 Internship : Four Month Summer Internship from 1st April to 30th July is Compulsory

15 Examination Scheme- Final Examination will be based on syllabus of both years

Subject			Theory			Practical			Total	
Sr No	**Subject Name**	**Code**	**Duration**	**Max**	**Min**	**Duration**	**Max**	**Min**	**Max**	**Min**
1	English	90000001	3 Hrs	70	25	3 Hrs	30	15	100	40
2	Elective-I		3 Hrs	70	25	3 Hrs	30	15	100	40
3	Elective-II		3 Hrs	70	25	3 Hrs	30	15	100	40
4	Medical terminology	20142211	3 Hrs	100	35	3 Hrs	100	50	200	85
5	Bio Statistics and Hospital Statistics	20142212	3 Hrs	100	35	3 Hrs	100	50	200	85
6	Medical Records Science	20142313	3 Hrs	100	35	3 Hrs	100	50	200	85
7	Medical Coding & Medical Billing	20142214	3 Hrs	100	35	3 Hrs	100	50	200	85
8	Medical Ethics, Medical Jurispendences, Medical Toxicology	20142215	3 Hrs	100	35	3 Hrs	100	50	200	85
9	Informatics and Health Information Management	20142216	3 Hrs	100	35	3 Hrs	100	50	200	85
	Total								1500	630

16 Teachers –Three Teachers per batch for vocational component. For English,Elective-I & II guest faculty on clock hour basis.

17 Student have to choose any one subject for Elective-I and Elective-II from below given subjects

18

a) For Elective I – Student can choose any one subject Code Subject Name	a) For Elective I – Student can choose any one subject Code Subject Name
90000011 Applied Mathematics	90000021 Applied Sciences (Physics & Chemistry)
90000012 Business Economics	90000022 Computer Application
90000013 Physical Biology (Botany & Zoology)	90000023 Business Mathematics
90000014 Entrepreneurship	
90000015 Psychology	

Theory & Practical - I - Diploma in Medical Records technology-1st year

Subject	Theory	Practicals
Medical terminology	**Medical Terminology related to systems systems**	**Introduction to Medical Terminology**
	The Cardiovascular System	Review origination of Medical terms
	1. Pathologic Conditions	Legal components
	2. Hemorrhages and related Conditions	Ethical Components
	3. Hereditary, Congenital and Developmental Disorders	**Components of Medical Terms**
	4. Symptomatic Terms	Basic Word building
	5. Diagnostic terms	Pronunciation
	6. Oncology Terms	Spelling
	7. Operative Terms	Meaning & Placement of Prefixes
	8. Laboratory Tests and Procedures	Meaning & Placement of Roots
	9. Standard Abbreviations	Meaning & Placement of Suffixes
	The Respiratory System	**Reference Material**
	1. Pathologic Conditions	Books
	2. Symptomatic Terms	Videos
	3. Diagnostic Terms	Medical Libraries
	4. Oncology Terms	**Use of medical terms in relation to body structure**
	5. Operative Terms	
	6. Laboratory Tests and Procedures	
	7. Standard Abbreviations	
	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	
	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	
	4. Diagnostic Terms	
	5. Operative Procedures	
	(C) Female Reproductive Organs	
	1. Hereditary, Congenital and Developmental Disorders	
	2. Sexually Transmitted Disorders (STD)	
	3. Symptomatic Terms	
	4. Diagnostic Terms	
	5. Operative Procedures	
	6. Laboratory tests and Procedures	
	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	
	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	
	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	
	BLOCK-XII Multiple-System Diseases	
	1. Inflammations and Infections	
	2. Symptomatic Terms	
	3. Diagnostic Terms	
	4. Laboratory Tests and Procedures	
Bio Statistics and Hospital Statistics	**VITAL STATISTICS**	
	• Definition and Uses of Vital statistics	

	• Methods of Collection of Vital Statistics	
	• Formulae for processing Vital Statistics:	
	Crude Rates	
	Specific Rate	
	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	
	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	
	Heath Care Statistics, Quality control of Data Collection & Presentation	
	i. Incomplete Record Control	
	ii. Inpatient census and rates computed from it.	
	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	
Medical Records Science	**Introduction**	**Medical Records for different patient encounters with health care**

		facility
	About the Program	i. Ambulatory Care Records {Emergency & Outpatient Records]
	Healthcare Delivery System	ii. Clinical Records in Long Term Care and Rehabilitation Facilities
	Key Terms and Equipment	iii. Mental Health Records
	Basic of Anatomy, Physiology and Pathology	**Methods for Filing, Storage and Retention of Medical records**
	Brief Knowledge of Parts and Position	• Numbering and Filing
	Anatomy of all system in brief	• Storage- Microfilming and Disk Storage
	General Physiology	• Retention
	General Pathology	• Registers & Indexes
	History of Medical records science	• Record movement control & Tracking system
	16th &17th Centuries	**Organizational Aspects of Medical Record Department/Services**
	18th -20th Centuries and Till Date	• Policies
	. U.S.A.- development and progression of Records keeping in the field of medical sciences	• Functions
	. International Standards of record keeping	• Location, Space and Layout
	. Medical records scenario in India	• Equipment
	Medical record Science Introduction	• Forms Designing and Control
	Definition	• Medical Records Flow and Processing
	Scope	
	Carrier Opportunities	
	Role of Medical record department	
	Medical record department	
	Overview	
	Organization	
	Law related to Medical record department	
	IT in healthcare	
	Need	
	Benefits	
	Introduction to hospital information services	
	Departmental HIS	

	Clinical department	
	Supporting department	
	HR and administration	
	Objective, Importance and Charecteristics of 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	
	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	
	Management of Medical Record Department	
	i. Planning, Organizing, Directing and Controlling	
	ii. Personnel	
	iii. Principal Responsibilities and Duties of the Medical Record Aministrator/Director	
	iv. Tools of Management in the Hands of the Medical Record Administrator/Director	

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

Theory & Practical - I - Diploma in Medical Records technology-2nd year

Subject	**Theory**	**Practicals**
Medical Coding & Medical Billing	**Nomenclatures and Classification Systems:**	Practice of Medical Coding on software
	. Standard Nomenclatures of diseases (SNDO).	Filling Claim Forms, Understanding Insurance coverage and cards
	. Current Medical Information Terminology.	Filling Authorization forms for cashless facility
	. Systematized Nomenclature of Pathology (SNOP)	
	. Systematized Nomenclature of Medicine (SNOMED)	
	. Common Procedures Coding System (HCPCS)	
	. Current Procedural Terminology	
	. International Classification of Functioning, Disability and Health (ICF)	
	. Case-Mix Classifications	
	. Diagnosis Related Groups	
	. ICD – (CM)	
	. ICD –	
	. ICD- Oncology (ICD - O)	
	International classification of Disease	
	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	
	Medical Billing and Health Insurance	
	Introduction to Medical Billing; Gathering & Entering Data Paper Claims Processing Electronic Claims Processing Posting Payments Generating Reports Billing Your Clients	
	Types of Insurance Coverage: Group Policy, Individual Policy, Medicare, Medicaid, Personal Injury, Worker compensation	
	Medical Procedures and Diagnosis	
	Life Cycle of an Insurance claim	
	Collection of Claim data	
	Claim Submission	
	Receiving and Posting Payments	
	Claim Generation	
	Accounts receivables and follow up	
Medical Ethics, Medical Jurispendences, Medical Toxicology	Laws relating to Hospital Administration:	
	1.Structure of Indian Judicial System:	
	Subordinate courts - Various Tribunals - High court and Supreme court - their	
	working relationships and effect of orders.	
	2.Medico – legal cases:	
	IPC – Medical Termination of Pregnancy Act 1971, Transplantation of Human	
	Organs Act.	
	3.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.	
	4.Medical Negligence:	
	Negligence - Medical Negligence - Contributory Negligence - Gross	
	Negligence - Criminal Negligence - Onus of Proof - Prevention of such	
	Negligence.	
	5.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.	
	6.Consumer Protection Act 1986:	
	Various provisions - structure, powers and jurisdiction of various forums	
	constituted in C.P Act - orders - how enforced.	
	7.Consent:	
	Consent - Medical Consent - various types of Consent - Consent forms -	
	"informed Consent" in clinical trials - Consent as a process - full proof methods	
	for proper Consent - various defects in obtaining Consent.	
	8.Important case studies:	
	District Forums, State Consumer Disputes Redressal Commission - National	
	Consumer Disputes Redressal Commission Case study as how cases were decided	
Informatics and Health Information Management	Introduction, Health care delivery systems, Informatics in Health Care, Health Information Management profession, Data and formation management, Information systems Development	Define database
	Aggregate Health care data	Explain terms used in database systems
	Secondary records and Health care database, Clinical classification and Terminologies, Reimbursement methodologies.	Describe common functions of database systems

	Nomenclature	Use database to create, input, edit, and display fields and records
	1. Introduction to Nomenclature	Analyze structure of database file
	2. Early Nomenclature	Perform calculations with a data base file
	3. Specialty Nomenclature	Alter structure of database file
	4. Statistical Classifications	Sort records based on multiple fields
	5. Other Classifications	Identify advanced database technology
	6. Choosing a Classification System	Use appropriate reference materials
	7. Encoding Systems	Utilize relational database
	8. Summary	Enter elements into database
	Development of Health Care Information	Proofread database
	Health Care Information standards, Paper based Health Records, Computer based patient records, Ethical issues in Health Information Management	Explain database
	Comparitive data	Design report formats
	Research methods, Clinical quality management	Transfer data to and from remote database
	Management of Health Information Services	Print reports using data from multiple databases
	Principles of Management and Leadership, Work Design and Performance improved, Human Resources Management, Training and Development, Project Management, Strategic Management.	Use database files with other application software
	Medical Transcription:	Verify accuracy of output (e.g., edit reports)
	• Basics of Medical Transcription	Basic Data Processing
	• Objectives of Medical Transcription	Input, update and store data into records in an existing database
	• Rules of Medical Transcription	Open stored spreadsheet, input and update data into spreadsheet, store revised spreadsheet
	• Advantages of Medical Transcription	and print revised spreadsheet

	• Division of medical words into their component parts	Database and Spreadsheet Operations
	• Forms, Suffixes, Prefixes and Terminology	Plan and create database, input and update data into records, store database and print quick
	• Laboratory tests, Clinical procedures and Abbreviations	reports from database.
	Telemedicine:	Create spreadsheet, input data into spreadsheet, update data in spreadsheet and store
	• Basic health care	spreadsheet.
	• Classification of Telemedicine	
	• Technology of Telemedicine	
	• Objectives of Telemedicine	
	• Rules of Telemedicine	
	• Telemedicine Act	
	• Merits of Telemedicine	
	• Future Telemedicine plans	
	• Research	

Infrastructure and Tool, Equipment required to be available in Institute

Sr No	**Name**	**Required Quantity**	**Cost in Rs**
1	Internet Facility	1	18000
2	Teaching aids-models, charts, videos	As per requirement	0
3	Administrative Office	1	60000
4	One Classroom with capacity for 25 students	1	7200
5	MOU with Hospital having relevant facility	As per requirement	
6	Chair and Desk	25	62500
7	Projector	1	8000
8	Computer with accessories	25	600000
9	Scanner	1	2500
10	Printer	1	2500
11	HMIS Hospital Management Information System	1	150000
	Total Cost		**910700**