

DESH BHAGAT UNIVERSITY, MANDI GOBINDGARH

FACULTY OF ALLIED HEALTH SCIENCES

Masters in Radio Imaging Technology

Program Outcomes (PO's):

PO1: Apply the knowledge of clinical, diagnostic and Medical physics, imaging technology, Clinical sciences, as well as an understanding of health care delivery diagnostic imaging system.

PO2: Find analyses, evaluate and apply the information systematically and shall make an appropriate diagnosis to provide quality of image along with patient care.

PO3: Demonstrate effective planning abilities including the prevention, detection, radiation Protection, diagnosis, and management of patient without compromising image quality.

PO4: Apply ethical principles like radiation protection and commit to professional ethics and responsibilities and norms of the Imaging techniques practice.

PO5: Conduct and present research and clinical studies which will contribute to the Advancement of Imaging techniques, quality, diagnosis and health sciences.

PO6: Explain theory of technology, instrumentation and physics i n Medical Imaging using discipline specific.

Course Code: MRIT - 101

Title of the Course: Management & Planning of a Radiology & Imaging Department

L	T	P	Credit
3	1	-	4

Course Outcomes:

CO1: Maintain and enhance professional activities through ongoing learning

CO2: Set priorities and manage time to balance professional responsibilities, outside activities and personal life

CO3: Recognize and respect the diversity of roles, responsibilities and competences of other professionals in the management of the patient

Course Code: MRIT - 102

Title of the Course: Management & Planning of a Radiology & Imaging Department – Practical

L	T	P	Credit
-	-	2	1

Course Outcomes:

CO1: Maintain and enhance professional activities through ongoing learning

CO2: Set priorities and manage time to balance professional responsibilities, outside activities and personal life

CO3: Recognize and respect the diversity of roles, responsibilities and competences of other professionals in the management of the patient

Course Code: MRIT - 103

Title of the Course: Modern Imaging Techniques including Fusion and Hybrid Imaging Technologies

L	T	P	Credit
3	1	-	4

Course Outcomes:

CO1: Understand access to state-of-the-art imaging systems and radioisotope production facilities.

CO2: Principles of operation of the gamma camera collimator characteristics.

CO3: Basics of quality assurance of gamma cameras.

Course Code: MRIT - 104

Title of the Course: Modern Imaging Techniques including Fusion and Hybrid Imaging Technologies – Practical

L	T	P	Credit
-	-	2	1

Course Outcomes:

CO1: Understand access to state-of-the-art imaging systems and radioisotope production facilities.

CO2: Principles of operation of the gamma camera collimator characteristics.

CO3: Basics of quality assurance of gamma cameras.

Course Code: MRIT -105

Title of the Course: Advanced Physics of Radiology & Imaging

L	T	P	Credit
3	-	-	3

Course Outcomes:

CO1: Provide knowledge of concepts and techniques in digital image processing

CO2: Provide access to characteristics and properties of different types of medical images

CO3: Describe the structure and components of PACS

Course Code: MRIT -106

Title of the Course: Advanced Physics of Radiology & Imaging – Practical

L	T	P	Credit
-	-	2	1

Course Outcomes:

CO1: Provide knowledge of concepts and techniques in digital image processing

CO2: Provide access to characteristics and properties of different types of medical images

CO3: Describe the structure and components of PACS

Course Code: MRIT - 201

Title of the Course: Radiation Safety and Protection

L	T	P	Credit
3	-	-	3

Course Outcomes:

CO1: Identify the parts of the x-ray machine and explain their purpose and function.

CO2: Explain how x-rays are produced and how they travel.

CO3: Demonstrate use of the controls on a x-ray machine and explain how they influence the x-ray beam

Course Code: MRIT - 202

Title of the Course: Radiation Safety and Protection– Practical

L	T	P	Credit
-	-	2	1

Course Outcomes:

CO1: Identify the parts of the x-ray machine and explain their purpose and function.

CO2: Explain how x-rays are produced and how they travel.

CO3: Demonstrate use of the controls on a x-ray machine and explain how they influence the x-ray beam

Course Code: MRIT - 203

Title of the Course: Modern Radiological and Imaging Equipment

L	T	P	Credit
3	-	-	3

Course Outcomes:

CO1: Provide knowledge of concepts and techniques in digital image processing

CO2: Provide access to characteristics and properties of different types of medical images

CO3: Understand the Special Techniques for disease etiology

Course Code: MRIT - 204

Title of the Course: Modern Radiological and Imaging Equipment– Practical

L	T	P	Credit
-	-	2	1

Course Outcomes:

CO1: Provide knowledge of concepts and techniques in digital image processing

CO2: Provide access to characteristics and properties of different types of medical images

CO3: Understand the Special Techniques for disease etiology

Course Code: MRIT - 205

Title of the Course: Radiological and Imaging Procedures

L	T	P	Credit
3	-	-	3

Course Outcomes:

CO1: Understand basic concepts of diseases

CO2: Understand the basic investigation procedures for diseases.

CO3: Understand disease etiology

Course Code: MRIT - 206

Title of the Course: Radiological and Imaging Procedures– Practical

L	T	P	Credit
-	-	2	1

Course Outcomes:

CO1: Understand basic concepts of diseases

CO2: Understand the basic investigation procedures for diseases.

CO3: Understand disease etiology

Course Code: MRIT - 301

Title of the Course: Quality Assurance and Quality Control in Diagnostic Radiology and Imaging

L	T	P	Credit
3	-	-	3

Course Outcomes:

CO1. Know about Electrical Supply & requirements for Radiology Equipment's.

CO2. To know about the safety rules for Radiographers.

CO3. Understanding the methods of improving radiographic quality.

Course Code: MRIT - 302

Title of the Course: Quality Assurance and Quality Control in Diagnostic Radiology and Imaging– Practical

L	T	P	Credit
-	-	2	1

Course Outcomes:

CO1. Know about Electrical Supply & requirements for Radiology Equipment's.

CO2. To know about the safety rules for Radiographers.

CO3. Understanding the methods of improving radiographic quality.

Course Code: MRIT - 303

Title of the Course: Newer Imaging Modalities

L	T	P	Credit
3	-	-	3

Course Outcomes:

CO1: Identify the parts of the x-ray machine and explain their purpose and function.

CO2: Explain how x-rays are produced and how they travel.

CO3: Demonstrate use of the controls on a x-ray machine and explain how they influence the x-ray beam

Course Code: MRIT - 304

Title of the Course: Newer Imaging Modalities– Practical

L	T	P	Credit
-	-	2	1

Course Outcomes:

CO1: Identify the parts of the x-ray machine and explain their purpose and function.

CO2: Explain how x-rays are produced and how they travel.

CO3: Demonstrate use of the controls on a x-ray machine and explain how they influence the x-ray beam

Course Code: MRIT - 305

Title of the Course: Intervention Radiological Techniques and Care of Patient

L	T	P	Credit
3	-	-	3

Course Outcomes:

CO1:The student will operate imaging equipment and accessory devices to produce quality radiographs

CO2: The student will practice appropriate radiation protection while performing radiologic procedures on children and adults.

CO3: The student will demonstrate the ability to solve clinical problems and assessment skills necessary to provide patient care

Course Code: MRIT - 306

Title of the Course: Intervention Radiological Techniques and Care of Patient– Practical

L	T	P	Credit
-	-	2	1

Course Outcomes:

CO1:The student will operate imaging equipment and accessory devices to produce quality radiographs

CO2: The student will practice appropriate radiation protection while performing radiologic procedures on children and adults.

CO3: The student will demonstrate the ability to solve clinical problems and assessment skills necessary to provide patient care

Course Code: MRIT - 401

Title of the Course: Newer Developments in Advanced Imaging Technology

L	T	P	Credit
3	-	-	3

Course Outcomes:

CO1: Provide knowledge of concepts and techniques in digital image processing

CO2: Provide access to characteristics and properties of different types of medical images

CO3: Understand the Special Techniques for disease etiology

Course Code: MRIT - 402

Title of the Course: Newer Developments in Advanced Imaging Technology– Practical

L	T	P	Credit
-	-	2	1

Course Outcomes:

CO1: Provide knowledge of concepts and techniques in digital image processing

CO2: Provide access to characteristics and properties of different types of medical images

CO3: Understand the Special Techniques for disease etiology

Course Code: MRIT - 403

Title of the Course: Biostatistics & Research Methodology

L	T	P	Credit
3	-	-	3

Course Outcomes:

CO1: Provide knowledge of concepts and techniques in digital image processing

CO2: Provide access to characteristics and properties of different types of medical images

CO3: Understand the Special Techniques for disease etiology .

Course Code: MRIT - 404

Title of the Course: Dissertation

L	T	P	Credit
-	-	2	1

Course Outcomes:

CO1: to provide the student with training in academic research and acquisition of practical skills,

CO2: Design of a research project, planning of experiments, dealing with practical problems, recording of, presenting and analyzing data.