MGM SCHOOL OF BIOMEDICAL SCIENCES

(A constituent unit of MGM INSTITUTE OF HEALTH SCIENCES)
(Deemed to be University u/s 3 of UGC Act 1956)
Grade "A^{++}" Accredited by NAAC
Sector 1, Kamothe, Navi Mumbai-410209, Tel.No.:022-2743763,27437632, 27432890
Email. sbsnm@mgmuhs.com/ Website: www.mgmsbsnm.edu.in

CHOICE BASED CREDIT SYSTEM (CBCS)

(Academic Year 2025 - 26)

Curriculum for

M.Sc. Allied Health Sciences

M.Sc. Medical Radiology and Imaging Technology

Semester I & II

DIRECTOR'S MESSAGE

Welcome Message from the Director

Dear Postgraduate Students,

Welcome to **MGM School of Biomedical Sciences (MGMSBS), MGMIHS**, a premier institution dedicated to advancing allied and health sciences education. As you embark on this transformative academic journey, you are joining a community that fosters excellence in research, clinical expertise, and innovation**.**

MGMIHS, accredited with **NAAC 'A^{++}' Grade (CGPA 3.55, 2022)** and recognized as a **Category I Institution by UGC**, offers an ecosystem that nurtures both academic and professional growth. With **NIRF (151-200 rank band) recognition, NABH-accredited hospitals, NABL-accredited diagnostic labs, and JCI accreditation for MGM New Bombay Hospital**, we uphold global benchmarks in education and healthcare.

At MGMSBS, our **15 postgraduate programs** are meticulously designed to align with the National Commission for Allied and Healthcare Professionals **(NCAHP)** standards**,** National Education Policy **(NEP)** 2020**,** and the National Credit Framework **(NCrF).** We have implemented the **Choice-Based Credit System (CBCS)** to provide academic flexibility while ensuring rigorous training in clinical and technical skills**.** Our state-of-the-art research laboratories, digital classrooms, and the Central Research Laboratory (CRL) foster an environment that encourages innovation and evidence-based learning**.**

Postgraduate education at MGMSBS goes beyond theoretical learning—our curriculum integrates **hands-on clinical training, interdisciplinary collaboration, and exposure to real-world healthcare challenges**. We emphasize **research-driven education**, encouraging students to actively participate in **scientific discoveries, publications, and international collaborations**.

Beyond academics, we believe in **holistic development**, with initiatives such as the **AARAMBH Science and Wellness Club**, which promotes **mental well-being, leadership, and professional networking**.

As you step into this **next phase of academic and professional growth**, we encourage you to explore new ideas, engage in impactful research, and contribute meaningfully to the **healthcare ecosystem**. We are confident that your journey at MGMSBS will shape you into **skilled, compassionate, and visionary professionals**, ready to lead in the ever-evolving healthcare landscape.

We look forward to witnessing your achievements and contributions!

Dr. Mansee Thakur
Director, MGM School of Biomedical Sciences
MGM Institute of Health Sciences, Navi Mumbai

ABOUT MGM SCHOOL OF BIOMEDICAL SCIENCES

Mission

To improve the quality of life, both at individual and community levels by imparting quality medical education to tomorrow's doctors and medical scientists and by advancing knowledge in all fields of health sciences though meaningful and ethical research.

Vision

By the year 2020, MGM Institute of Health Sciences aims to be top-ranking Centre of Excellence in Medical Education and Research. Students graduating from the Institute will have the required skills to deliver quality health care to all sections of the society with compassion and benevolence, without prejudice or discrimination, at an affordable cost. As a research Centre, it shall focus on finding better, safer and affordable ways of diagnosing, treating and preventing diseases. In doing so, it will maintain the highest ethical standards.

About – School of Biomedical Sciences

MGM School of Biomedical Sciences is formed under the aegis of MGM IHS with the vision of offering basic Allied Science and Medical courses for students who aspire to pursue their career in the Allied Health Sciences, teaching as well as research.

School of Biomedical Sciences is dedicated to the providing the highest quality education in basic medical sciences by offering a dynamic study environment with well-equipped labs. The school encompasses 24 courses each with its own distinct, specialized body of knowledge and skill. This includes 8 UG courses and 16 PG courses. The college at its growing years started with mere 100 students has recorded exponential growth and is now a full-fledged educational and research institution with the student strength reaching approximately **800** at present.

Our consistent theme throughout is to encourage students to become engaged, be active learners and to promote medical research so that ultimately they acquire knowledge, skills, and understanding so as to provide well qualified and trained professionals in Allied Health Sciences to improve the quality of life.

As there is increased need to deliver high quality, timely and easily accessible patient care system the collaborative efforts among physicians, nurses and allied health providers become ever more essential for an effective patient care. Thus the role of allied health professionals in ever-evolving medical system is very important in providing high-quality patient care.

Last but by no means least, School of Biomedical Sciences envisions to continuously grow and reform. Reformations are essential to any growing institution as it fulfills our bold aspirations of providing the best for the students, for us to serve long into the future and to get ourselves updated to changing and evolving trends in the health care systems.

Name of the Degree: M. Sc. Medical Radiology & Imaging Technology

Duration of Study: The duration of the study for M.Sc. Medical Radiology & Imaging Technology will be of 2 years

Program pattern:

- First Semester: July
- Second Semester: January
- Third Semester: July
- Fourth Semester: January

Eligibility Criteria:

B.Sc. in Medical Radiology& Imaging Technology/B.Sc. Medical Technology Radio diagnosis and Imaging/ B.Sc. Radiological Technology/B.Sc. in Radiography B.Sc. Medical Technology (X-ray) with a minimum 50% marks in B.Sc.

Selection of eligible candidates: Selection to the M.Sc. MRIT course shall be on the performance in interview conducted by MGM School of Biomedical Sciences, Navi Mumbai.

Attendance and Monitoring Progress of Study:

A candidate shall study in concerned department of the institute for the entire period as a full time student. No candidate is permitted to work in any other laboratory/college/hospital/pharmacy etc while studying. No candidate should join any other course of study or appear for any other degree examination conducted by this university or any university in India or Abroad during the period of registration.
A candidate who has put in a minimum of 75% of attendance in theory and practical separately and who has fulfilled other requirements of the course shall be permitted to appear for University Examination.

Clinical Training Evaluation:

Students shall be deputed to CT, MRI, DR & USG department wherein they shall undergo practical training of handling patients, special procedures, and interventional procedures.

Medium of Instruction:

English shall be the Medium of Instruction for all the Subjects of study and for examinations.

For any query visit the website: www.mgmsbsnm.edu.in

M.Sc. MEDICAL RADIOLOGY AND TECHNOLOGY

Program Outcome

Program Outcome	M.Sc. Medical Radiology and Imaging Technology
PO1	**Advanced Knowledge of Radiology and Imaging Techniques:** Graduates will possess in-depth knowledge of the principles, technologies, and clinical applications of various medical imaging modalities (X-ray, CT, MRI, ultrasound, nuclear medicine, etc.) and their role in diagnosis and treatment.
PO2	**Technical Proficiency in Imaging Equipment:** Graduates will demonstrate the ability to operate, troubleshoot, and maintain advanced radiology and imaging equipment, ensuring safe, accurate, and effective image acquisition.
PO3	**Radiation Safety and Protection:** Graduates will understand the principles of radiation protection and safety, and will be skilled in minimizing patient exposure to radiation while ensuring high-quality diagnostic images.
PO4	**Image Analysis and Interpretation:** Graduates will be proficient in the interpretation of diagnostic images, identifying normal and abnormal findings, and understanding their significance in clinical practice for accurate diagnosis and treatment planning.
PO5	**Research and Evidence-Based Practice:** Graduates will be able to critically evaluate and apply current research in medical imaging to enhance practice, contribute to the field's advancement, and engage in evidence-based decision-making in clinical settings.
PO6	**Ethical and Professional Practice:** Graduates will demonstrate high standards of professional and ethical behavior in patient care, maintaining patient confidentiality, consent, and dignity, while working collaboratively in multidisciplinary healthcare teams.
PO7	**Leadership and Management in Imaging Technology:** Graduates will be capable of leading and managing imaging departments or teams, contributing to healthcare administration, quality control, and continuous improvement in imaging practices.
PO8	**Continuing Education and Professional Development:** Graduates will engage in lifelong learning, staying current with emerging technologies, regulatory standards, and advancements in radiology and imaging technology, contributing to the continuous improvement of healthcare services.

Program Specific Outcome

Program Code	Program Specific Outcome
After taking this course...	
PO1	The student will learn principles of tomographic imaging with different modalities such as x-ray, PET and SPECT, NMR/MRI, ultra sound and optical with non-diffracting and diffracting energy sources.
PO2	Learn principles of non-invasive medical imaging techniques and non-destructive techniques for industrial imaging.
PO3	After completion of this curriculum, a Medical Radiology & Imaging Technologist gets opportunities to work at various health care institutes under designations as: ➢ Radiographer ➢ Radiological Technologist ➢ X-ray Technologist ➢ CT scan Technologist ➢ MRI Technologist ➢ Mammography Technologist ➢ Cathlab Technologist ➢ Ultrasonography Technologist ➢ Applications Specialist ➢ Radiological Safety Officer ➢ Interventional Technologist ➢ Quality control Technologist ➢ PACS manager ➢ Sales and marketing of radiology industry ➢ Diagnostic Manager ➢ Teaching & research faculty in medical colleges

Course Outcomes
Semester I

MMRIT 101 T & MMRIT 103 P	Principles of Radiographic Exposure	Mapped PO	Teaching-Learning Methodology	Assessment Tools
CO1	Understanding the basic concepts, theories & method, in applied physics relevant to radiological imaging techniques & image quality	**PO1, PO2, PO3, PO4, PO6, PO8**	Lecture, Practical, Journal, Assignment, E-Learning and Poster / Videos	Internal Assessment and University Exam, Theory exam, Practical Exam, MCQ, Viva-voce, Station Exercise, Seminar, Assignment
CO2	Categorizing provisions for radiation safety by various national & international regulatory bodies.	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Journal, Assignment, E-Learning and Poster / Videos	Internal Assessment and University Exam, Theory exam, Practical Exam, MCQ, Viva-voce, Station Exercise, Seminar, Assignment
CO3	Tagging of different imaging modalities in radiology department	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Journal, Assignment, E-Learning and Poster / Videos	Internal Assessment and University Exam, Theory exam, Practical Exam, MCQ, Viva-voce, Station Exercise, Seminar, Assignment
CO4	Differentiating EMR and its application in X –ray diagnosis and therapy.	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Journal, Assignment, E-Learning and Poster / Videos	Internal Assessment and University Exam, Theory exam, Practical Exam, MCQ, Viva-voce, Station Exercise, Seminar, Assignment
CO5	Evaluating the factors affecting the image quality from x ray.	**PO1, PO2, PO5, PO6, PO7, PO8**	Lecture, Journal, Assignment, E-Learning and Poster / Videos	Internal Assessment and University Exam, Theory exam, Practical Exam, MCQ, Viva-voce, Station Exercise, Seminar, Assignment

MMRIT 102 T	Radiation Protection in Diagnostic Radiology	Mapped PO	Teaching-Learning Methodology	Assessment Tools
CO1	Understanding the concepts and methods of radiation protection principles and their applications in radiology department.	**PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Seminar, Problem Based Learning, Guest Lecture, Assignment	Internal Assessment, University Exam, Theory exam, Seminar, MCQ, Assignment
CO2	Obtaining knowledge for management and handling the equipment for various procedures.	**PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Seminar, Problem Based Learning, Guest Lecture, Assignment	Internal Assessment, University Exam, Theory exam, Seminar, MCQ, Assignment
CO3	Applying the regulations of radiation practices according to internationally	**PO2, PO3, PO4, PO5,**	Lecture, Seminar, Problem Based	Internal Assessment, University Exam,

	accepted methods.	**PO6, PO7, PO8**	Learning, Guest Lecture, Assignment	Theory exam, Seminar, MCQ, Assignment
CO4	Practicing the techniques of radiation protection of patients, occupational workers and general public from secondary radiation.	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Seminar, Problem Based Learning, Guest Lecture, Assignment	Internal Assessment, University Exam, Theory exam, Seminar, MCQ, Assignment

CC 001 T & CC 001 P	**Research Methodology & Biostatistics (Core Course)**	**Mapped PO**	**Teaching-Learning Methodology**	**Assessment Tools**
CO1	Students will demonstrate the ability to design a research study, including the formulation of research questions, hypothesis generation, and selection of appropriate study design (e.g., experimental, observational).	**PO5, PO6, PO7, PO8**	Lecture, Practical, Assignment, Journal	Internal Assessment and University Exam, Theory exam, Practical Exam, Seminar, Viva-Voce, Station exercise, MCQ,

MMRIT 104 CP	**MMRIT Directed Clinical Education-I**	**Mapped PO**	**Teaching-Learning Methodology**	**Assessment Tools**
CO1	Build a robust theoretical foundation, enabling students to understand healthare practices, disease management, and patient care, thereby empowering them to make informed decisions and adapt to evolving medical technologies.	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Practical, Clinical Posting, Demonstration, Case-study, Clinical Simulation	Practical Exam, Station Exercise, Viva-voce, Case- Study
CO 2	Emphasize hands-on training, ensuring proficiency in clinical procedures, diagnostic techniques, and the use of advanced medical equipment. This practical exposure will bridge the gap between theory and practice, enhancing students' confidence and competence in delivering quality patient care.	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Practical, Clinical Posting, Demonstration, Case-study, Clinical Simulation	Practical Exam, Station Exercise, Viva-voce, Case- Study
CO 3	Focus on developing professionalism, empathy, ethical conduct, teamwork, and communication skills—key traits for holistic patient care and effective collaboration in interdisciplinary healthcare teams.	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Practical, Clinical Posting, Demonstration, Case-study, Clinical Simulation	Practical Exam, Station Exercise, Viva-voce, Case- Study

Semester II

MMRIT 105 T & MMRIT 108 P	Radiological Procedures	Mapped PO	Teaching-Learning Methodology	Assessment Tools
CO1	Annotating the basic concepts, theories, techniques & equipment, in and conventional radiography relevant to X-Ray equipment.	**PO1, PO2, PO4, PO5, PO6, PO7, PO8**	Lecture, Practical, Demonstration, Assignment, Journal	Internal Assessment and University Exam, Theory exam, Practical Exam, Seminar, Viva-Voce, Station exercise, MCQ, Assignment
CO2	Tagging related anatomy of organ for independently performing different diagnostic radiologic procedures.	**PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Practical, Demonstration, Assignment, Journal	Internal Assessment and University Exam, Theory exam, Practical Exam, Seminar, Viva-Voce, Station exercise, MCQ, Assignment
CO3	Discussing equipment and supplies necessary to complete special radiographic procedures with administration of contrast media.	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Practical, Demonstration, Assignment, Journal	Internal Assessment and University Exam, Theory exam, Practical Exam, Seminar, Viva-Voce, Station exercise, MCQ, Assignment
CO4	Evaluating the safety aspects of contrast media and describe the allergic reactions associated to use of different contrast media for diagnostic purpose.	**PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Practical, Demonstration, Assignment, Journal	Internal Assessment and University Exam, Theory exam, Practical Exam, Seminar, Viva-Voce, Station exercise, MCQ, Assignment

MMRIT 106 T	Instrumentation of Conventional Radiological Equipment	Mapped PO	Teaching-Learning Methodology	Assessment Tools
CO1	Understanding the basic concepts, theories & method, in applied physics relevant to radiological imaging techniques & image quality.	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Demonstration, Poster and Videos	Internal Assessment, University Exam, Theory exam, Seminar, MCQ
CO2	Expressing the components and working of equipment related to x-ray	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Demonstration, Poster and Videos	Internal Assessment, University Exam, Theory exam, Seminar, MCQ
CO3	Operating X-Ray imaging equipment independently	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Demonstration, Poster and Videos	Internal Assessment, University Exam, Theory exam, Seminar, MCQ
CO4	Demonstrating application of different components of x-ray.	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Demonstration, Poster and Videos	Internal Assessment, University Exam, Theory exam, Seminar, MCQ
CO5	Analyzing maintenance requirement and care of x ray equipment in radiology department.	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Demonstration, Poster and Videos	Internal Assessment, University Exam, Theory exam, Seminar, MCQ

MMRIT 107 T	Instrumentation of Specialized Radiological Equipment	Mapped PO	Teaching-Learning Methodology	Assessment Tools
CO1	Understanding the basic concepts, theories, techniques & equipment for different interventional radiological procedures.	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Demonstration, Industrial Visit	Internal Assessment, University Exam, Theory exam, Seminar, MCQ
CO2	Applying the patient preparations needed before & post procedure care in any interventional radiological examination.	**PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Demonstration, Industrial Visit	Internal Assessment, University Exam, Theory exam, Seminar, MCQ
CO3	Applying provisions for radiation safety and protection as prescribed by various national & international regulatory bodies.	**PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Demonstration, Industrial Visit	Internal Assessment, University Exam, Theory exam, Seminar, MCQ
CO4	Calculating the factors affecting the image quality	**PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Demonstration, Industrial Visit	Internal Assessment, University Exam, Theory exam, Seminar, MCQ
CO5	Applying Care, maintenance and tests, Quality assurance program for equipment.	**PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Lecture, Demonstration, Industrial Visit	Internal Assessment, University Exam, Theory exam, Seminar, MCQ

MMRIT 109 CP	MMRIT Directed Clinical Education-II	Mapped PO	Teaching-Learning Methodology	Assessment Tools
CO1	Build a robust theoretical foundation, enabling students to understand healthcare practices, disease management, and patient care, thereby empowering them to make informed decisions and adapt to evolving medical technologies.	**PO1, PO2, PO3, PO4, PO6, PO7, PO8**	Practical, Clinical Posting, Demonstration, Internship, Case-study, Clinical Simulation	Practical Exam, Station Exercise, Viva-voce
CO 2	Emphasize hands-on training, ensuring proficiency in clinical procedures, diagnostic techniques, and the use of advanced medical equipment. This practical exposure will bridge the gap between theory and practice, enhancing students' confidence and competence in delivering quality patient care.	**PO2, PO3, PO4, PO5, PO6, PO7, PO8**	Practical, Clinical Posting, Demonstration, Internship, Case-study, Clinical Simulation	Practical Exam, Station Exercise, Viva-voce
CO 3	Focus on developing professionalism, empathy, ethical conduct, teamwork, and communication skills—key traits for holistic patient care and effective collaboration in interdisciplinary healthcare teams.	**PO2, PO3, PO4, PO6, PO7, PO8**	Practical, Clinical Posting, Demonstration, Internship, Case-study, Clinical Simulation	Practical Exam, Station Exercise, Viva-voce

SEC 001 T	Innovation and Entrepreneurship	Mapped PO	Teaching- Learning Methodology	Assessment Tools
CO1	Students will grasp the concepts of innovation, its ecosystem, and the role of various stakeholders such as government policies, startups, and innovation hubs.	**PO1, PO5, PO6, PO7, PO8**	Lecture, E-Learning, Guest Lecture, Industrial Visit, Industrial Expert Talk, Poster and Videos	Internal Assessment, University Exam, Theory exam, Seminar, MCQ
CO2	Cultivating an entrepreneurial mindset and leadership qualities necessary for driving innovation and leading ventures.	**PO1, PO5, PO6, PO7, PO8**	Lecture, E-Learning, Guest Lecture, Industrial Visit, Industrial Expert Talk, Poster and Videos	Internal Assessment, University Exam, Theory exam, Seminar, MCQ
CO3	Understanding the intersection of technology and innovation and leveraging emerging technologies for entrepreneurial ventures.	**PO1, PO5, PO6, PO7, PO8**	Lecture, E-Learning, Guest Lecture, Industrial Visit, Industrial Expert Talk, Poster and Videos	Internal Assessment, University Exam, Theory exam, Seminar, MCQ

SEC 002 T	One Health (NPTEL)	Mapped PO	Teaching- Learning Methodology	Assessment Tools
CO1	A comprehensive understanding of One Health's role in global health challenges, emphasizing interconnectedness among human, animal, and environmental health.	**PO5, PO6, PO7, PO8**	E-Learning, Assignment, Theory	Online MCQ Test
CO2	Topics include research ethics, disease surveillance, and successes in controlling emerging infectious diseases.	**PO5, PO6, PO7, PO8**	E-Learning, Assignment, Theory	Online MCQ Test
CO3	Students explore disease emergence, transmission, antimicrobial resistance, and food safety, gaining insights into effective public health strategies.	**PO5, PO6, PO7, PO8**	E-Learning, Assignment, Theory	Online MCQ Test

OUTLINE OF COURSE CURRICULUM

M.Sc. Medical Radiology and Imaging Technology

Semester I

Code No.	Core Course	Credits/Week					Hrs/Semester					Marks		
		Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/ Rotation (CP)	Total Credits (C)	Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/ Rotation (CP)	Total (hrs.)	Internal Assement (IA)	Semester End Exam (SEE)	Total
Discipiline Specific Core Theory														
MMRIT 101 T	Principles of Radiographic Exposure	4	-	-	-	**4**	60	-	-	-	**60**	**20**	**80**	**100**
MMRIT 102 T	Radiation Protection in Diagnostic Radiology	4	-	-	-	**4**	60		-	-	**60**	**20**	**80**	**100**
CC 001 T	Research Methodology & Biostatistics (Core Course)	3	-	-	-	**3**	45	-	-	-	**45**	-	**50**	**50**
Discipiline Specific Core Practical														
MMRIT 103 P	Principles of Radiographic Exposure	-	-	4	-	**2**		-	60	-	**60**	**10**	**40**	**50**
MMRIT 104 CP	MMRIT Directed Clinical Education - I	-	-	-	15	**5**	-	-	-	**225**	**225**	-	**50**	**50**
CC 001 P	Research Methodology & Biostatistics (Core Course)	-	-	4	-	**2**	-	-	60	-	**60**	-	**50**	**50**
Total		**11**	**0**	**8**	**15**	**20**	**165**	**0**	**120**	**225**	**510**	**50**	**350**	**400**

OUTLINE OF COURSE CURRICULUM

M.Sc. Medical Radiology and Imaging Technology

Semester II

Code No.	Core Course	Credits/Week					Hrs/Semester					Marks		
		Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/ Rotation (CP)	Total Credits (C)	Lecture (L)	Tutorial (T)	Practical (P)	Clinical Posing/ Rotation (CP)	Total (hrs.)	Internal Assement (IA)	Semester End Exam (SEE)	Total
Discipiline Specific Core Theory														
MMRIT 105 T	Radiological Procedures	3	1	-	-	**4**	45	15	-	-	**60**	20	80	**100**
MMRIT 106 T	Instrumentation of Conventional Radiological Equipments	3	1	-	-	**4**	45	15	-	-	**60**	20	80	**100**
MMRIT 107 T	Insturmentation of Specialized Radiology Equipements	3	1	-	-	**4**	45	15	-	-	**60**	20	80	**100**
Discipiline Specific Core Practical														
MMRIT 108 P	Radiological Procedures	-	-	4	-	**2**	-	-	60	-	**60**	10	40	**50**
MMRIT 109 CP	MMRIT Directed Clinical Education - II	-	-	-	15	**5**	-	-	-	225	**225**	-	50	**50**
Skill Ehancement Course														
SEC 001 T	Innovation and Enterprenuarship	3	-	-	-	**3**	45	-	-	-	**45**	-	**50**	**50**
SEC 002 T	One Health (NPTEL)													
Total		**12**	**3**	**4**	**15**	**22**	**180**	**45**	**60**	**225**	**510**	**70**	**570**	**450**