

RULES, REGULATION AND SYLLABUS

Faculty of Paramedical Sciences



Master of Medical Radiology and Imaging Technology (MMRIT)

Sumit

(Signature)

Dean

Uttar Pradesh University of Medical Sciences, Saifai

RULES AND REGULATION FOR MASTER OF MEDICAL RADIOLOGY AND IMAGING TECHNOLOGY (MMRIT)

VISION:

To become an institute of excellence in the field of Medical Radiology & Imaging Technology by imparting professional ethics, develop skills and knowledge to produce highly qualified & skilled Radiologic Technologists to serve the nation

MISSION:

- To impart skilled and knowledgeable education of benchmark standards to our students and enable them to become successful Radiologic Technologists, upholding high human values.
- To enable the students for developing more creativity, innovative thinking to become skilled professionals in academic, clinical and research areas of Medical Radiology & Imaging Technology.
- To create educational pathways to students maximizing their optional career choices.
- To instill unity and honesty through curricular, co-curricular and extra-curricular activities.

Programs which focus on competency /Employability/Entrepreneurship/Skill development:

Fundamental Competencies	Applies fundamental competencies in the performance of tasks assigned.
Safe Work Practices	Conducts professional practice according to established protocols, safety guidelines and existing legislation.
Communication and Interactions	Interacts in a professional and competent manner, using effective listening, verbal and written communication in dealing with laboratory colleagues, patients, clients and other health professionals.
Film Processing	Perform X-ray film / image processing techniques (including dark room techniques)
Quality Assurance	Follows quality assurance policies and procedures and participants in quality assurance initiatives.
Communication	Collate and Communicate Health Information within and between the departments. Make decisions on information to be communicated based on needs of the individual and various regulations and guidelines
Professionalism	Meets the legal and ethical requirements of practice and protect the patient's right to an established standard of care. Professional responsibility encompasses scope of practice, accountability, and professional development.
Practical Skills	Able to Operate and oversee operation of radiologic equipment, To be able to process radiographic images and prepare and document reports, Recognise contrast induced adverse reactions Collate and communicate health information Ensure availability of medical and diagnostic supplies Maintain a safe, healthy and secure environment Making sure that the radiation safety guidelines are followed Making sure that biomedical waste disposal protocols are followed Making sure that the infection control policies and procedures are followed Monitor and assure quality.


[Handwritten signature]

[Handwritten signature]

Dean
Faculty of Paramedical Sciences,
UPUMS Saifal

Sr No.	Questions	Probable answer
1	What is the name of program? (Nomenclature)	Master of Medical Radiology & Imaging Technology
2	What is the broad area of profession? (Medical, Allied, Healthcare , others).	Allied and Healthcare Profession
3	What is the scope of this program?	<p>Welcome to the study of Medical Radiology & Imaging Technology! Whether you are already enrolled in this program or are taking this program as a prerequisite to entering a program. Medical Radiology and Imaging Technology is a specialty within the field of Allied and healthcare profession. Radiology and Imaging Technology is the world of sciences which include General Radiography, Special Radiography, Interventional Radiology, CT Scan, MRI, Ultrasonography, DEXA etc.</p> <p>Students admitted in this program has been educated in and practices in one or more of these fields viz. Radiography, Computed Tomography, Magnetic Resonance Imaging, Interventional Radiology, Mammography, Bone Densitometry, Diagnostic Medical Sonography, Forensic Imaging Technology, Quality Assurance, Image informatics.</p> <p>1. The professionals educated in this field can work as Radiologic Technologists/radiographers/ Radiologic Technologists (Intervention)/ Radiologic Technologists (CT Scan)/ Radiologic Technologists (MR)/ Radiologic Technologists (DEXA)/ Mammographers/ Sonographers/ Quality Assurance Technologists/ PACS Administrators/ Commercial Representative/ Application Specialist /RSO/ Radiology Administrator / Educator / Research Associates.</p>
4	What are the learning goals and objective of the profession?	<p>Medical Imaging Technology is a dynamic health care profession and an integral part of modern health care team concept. Thus M.Sc. MRIT Program aims to produce Professional Graduates in Medical Imaging Technology who are skilled, creative in nature and self reliant in performing all types of general radiography as well as CT, MRI and other digital imaging. They will also be capable of managing a radiology department and conduct theory as well as practical classes on Medical Imaging Technology. They should be able to conduct varying quality control tests related to diagnostic radiology and they should also have sound knowledge of patient care and radiation protection in the department of radio-diagnosis. They should also have sound theoretical and practical knowledge of the newer imaging modalities such as Computed tomography, Magnetic resonance imaging, and digital radiography. They should also have basic knowledge on Ultrasound, SPECT, PET, PET-CT and PET-MRI at the same time they should be able to cope with future developments in the field of radiology and imaging. Apart from the professional knowledge and skills the M. Sc.</p>

Handwritten signature


 Society of Paramedical Sciences
 114AS Saito

		<p>MRIT graduates will also have good knowledge of research methodology and bio statistics which enable them to write scientific papers and publish them in national and international journals.</p> <p>The main objective of this program is to produce a specialist medical imaging technologist who will be able to:</p> <ol style="list-style-type: none"> 1. Perform and supervise on all routine and special X-ray examinations. 2. Perform all CT and MRI examinations. 3. Teach and guide certificate level and bachelor level students of medical Imaging. 4. Demonstrate technical knowledge and skills on interventional radiological procedures. 5. Conduct quality control tests and maintain the highest quality of radiographic images. 6. Work as a radiation safety officer in the department of Radio-diagnosis. 7. Demonstrate basic knowledge of Nuclear medicine procedures. 8. Demonstrate sound knowledge on recent advances in radiology and newer imaging modalities in Radio-diagnosis. 9. Demonstrate necessary competence in matters of planning a Radiology Department and purchasing new imaging equipment. 10. Plan, conduct and carry out as well as guide research works in the specialty of Radiological technology. 11. Provide basic as well as advanced education in the field of Radiological technology.
5	What is the job responsibility of the Profession?	<ol style="list-style-type: none"> 1. Should be able to undertake Mammography, CT scan and MRI procedures independently. 2. Assist in specialized radiological procedures. 3. Able to do the image processing. 4. Should be able to handle all radiological and imaging equipment independently. 5. Should ensure radiation protection and quality assurance 6. Undertake care and maintenance of all radiological and imaging equipment 7. Able to evaluate images for technical quality 8. Able to identify and manage emergency situations. 9. Able to receive and document verbal, written and electronic orders in the patient's medical record. 10. Should have computer skills. 11. Should be able to provide empathetic professional patient care. 12. Able to demonstrate professional growth, sense of professionalism and desire to learn 13. Able to demonstrate the core values of caring, integrity and discovery. 14. To exhibit keen interest, initiative & drive in the overall development of the Department and 'Leadership Qualities' for others to follow. 15. He / She is expected to be confident and to perform all the duties diligently with utmost sincerity and honesty.

[Handwritten Signature]

Dean
Faculty of Paramedical Sciences,
IPUMS Saital



		16. Any other duty/task/work assigned by any higher authority like Director, Dean, Medical Superintendent, Head of the Department from time to time; either in "Public Interest" or in the interest of upkeep / development of the Department / Institutions.
6	Is any foundation Program required during this program?	NO
7	What is the duration of this program? (Including Teaching hours, Clinical Posting, Internship etc)	4 Semesters(2 years) Total hours =1380
8	What is the medium of Teaching?	English
9	What is intake capacity per year?	6
10	Is hospital training required during this program?	Yes
11	What are required facilities (No. of Bed) in the Hospital to conduct the program?	<p>The institute or College conducting Master in Medical Radiology & Imaging Technology (MMRIT) should mandatorily be associated with minimum 100 beds hospital whereby they can make use of the available patient load and medical infrastructure as a part of their training curriculum. For the institutes to be capable of providing high quality training to the student and exposure to all the related modalities, it should have the following:</p> <ol style="list-style-type: none"> 1. Processing Equipment: Automatic and manual Processing 2. Conventional and CR/DR X-ray Unit <ul style="list-style-type: none"> - High Capacity (500 mA and above) - Dedicated Chest X-Ray / Orthopedic / Casualty X-Ray Units - C-arm

Dr. Sunil

Dean
Faculty of Paramedical Sciences,
UPUMS Saifal.



		<p>3. Mobile X-ray unit</p> <p>4. Fluoroscopic unit</p> <p>- High Capacity (500 mA and above) with I.I.T.V/Flat panel</p> <p>5. Ultrasonography including Colour Doppler Equipment</p> <p>6. Multi-slice (Above 16 slice) C.T. Scanner</p> <p>- with accessories like laser camera, Pressure injector, Phantom for QCT and all application software</p> <p>7. Mammography Equipment</p> <p>8. MRI Scanner (1.5 Tesla or above)</p> <p>- With accessories like laser camera and all application software like for functional MRI, MR Spectroscopy.</p> <p>9. Cath lab/DSA Lab (preferably)</p> <p>10. DEXA (Preferably)</p> <p>11. Quality Assurance Tool Kits with all accessories</p>									
12	What is the required teaching faculty to student ratio?	<p>Faculty and student ratio of 1:3</p> <p>Total number of minimum faculty for all the two years will be as follows -:</p> <table> <tr> <td>Professor</td> <td>-</td> <td>01</td> </tr> <tr> <td>Associate Professor</td> <td>-</td> <td>01</td> </tr> <tr> <td>Assistant Professor</td> <td>-</td> <td>02</td> </tr> </table>	Professor	-	01	Associate Professor	-	01	Assistant Professor	-	02
Professor	-	01									
Associate Professor	-	01									
Assistant Professor	-	02									
13	What are required non-teaching staffs?	Clerk-01, Computer operator-01, Lab Technician(Medical Radiology & Imaging Technology) for each lab-02, Lab assistant for each lab-02, Driver-01, Peon-01									
14	What are role & responsibilities of Teaching Faculty and non Teaching staff?	Whoever adopts teaching as a profession assumes the obligation to conduct himself / herself in accordance with the ideal of the profession. A teacher is constantly under the scrutiny of his students and the society at large. Therefore, every teacher should see that there is no incompatibility between his precepts and practice. The national ideals of education which have already been set forth and which he/she should seek to inculcate among students must be his/her own ideals. The profession further requires that the teacher should be calm, patient and communicative by temperament and amiable in disposition.									
15	What are the minimum required infrastructure and facilities to	Annexure-A attached at the bottom of this questionnaire									

Signature

Dean
Faculty of Paramedical Sciences
UPUMS Saifal



	conduct the program?	
16	What is the selection process for the Program?	Admission to MMRIT program shall be made on the basis of merit obtained by the students in the entrance examination conducted by the UPUMS or by State regulatory body. Selected candidate has to be medically fit to join the program.
17	What are the eligibility criteria for the program?	Professional Qualification- A candidate seeking admission to degree in MMRIT program have completed the degree of Bachelor of Medical Radiology & Imaging Technology from any recognized Institute or University in India or a degree of a foreign university recognized as equivalent with at least 50% marks in aggregate.
18	Is lateral entry available in this program?	No
19	What is the eligibility criterion for lateral entry to this program?	N/A
20	Are additional Programs included under eligibility or not?	N/A
21	What is the minimum and maximum age for admission to this program?	The candidate seeking admission into the MMRIT program should have a minimum age of 20 years as on 31 st December of that academic year and there is no maximum age limit.
22	What are the Reservation Policy for admission including PH,FF, EWS, Ex Army etc.? (Explain Horizontal and Vertical)?	As per the govt. of Uttar Pradesh

Sumit

Dean
Faculty of Paramedical Sciences,
UPUMS Saifal.



23	Criteria for validation of reservation certificates?	As per the govt. of Uttar Pradesh
24	Criteria for admission from other states students? (Moolnivas / General Domicile)	Open to all Indian Nationals.
25	What are the documents required to be submitted for admission into the program?	<p>The following documents has to be submitted in original and 2 sets of self attested Xerox copies</p> <ol style="list-style-type: none"> 1. High school certificate (For DOB proof) 2. Intermediate /10+2/other equivalent certificate and marks sheet 3. Original or Provisional (valid for 6 months) BMRIT degree. 4. Internship completion certificate. 5. Migration/Transfer certificate 6. Domicile certificate 7. Caste certificate(if applicable) 8. Character certificate 9. Affidavit for gap in the education period. 10. Affidavit by student and parent/ Guardian for anti ragging declaration 11. Aadhar card (Xerox copy) 12. 4 latest color passport size photographs
26	What is the process of the enrollment of students?	<p>The admitted students in this program will be enrolled by UPUMS Saifai. The process of enrollment should be completed within one month after the closing of admission to that session. The required documents for enrollment are as follows:</p> <ol style="list-style-type: none"> 1. Enrollment form (Provided by University) 2. High school certificate 3. Intermediate /10+2/other equivalent certificate and marks sheet 4. Original or Provisional (valid for 6 months) BMRIT degree. 5. Internship completion certificate 6. Migration/Transfer certificate

Sunit


Dean
Faculty of Paramedical Sciences,
UPUMS Saifai.



		7. One Photographs 8. Enrollment fee
27	What are the required hours (working days) for students per semester?	Each semester shall consist of a maximum 90 -100 working days (90 x 6 hours per day = 540 hours / 100x6 = 600 hours) excluding examination days .
28	What are the attendance criteria to appear in university semester end Examination? (Theory and Practical Separately)	A candidate has to secure minimum of 75% attendance in theory and 80% in Practical/Clinical training to appear in the university semester end examination.
29	What are the Examination Criteria (for appear in examination)?	Candidate must obtain at least 35% marks in theory and practicals separately in internal assessment to be eligible for the university semester end examination.
30	What are the learning outcome / knowledge comprehension / application of this study? (per year)	Annexure-B attached at the bottom of this questionnaire
31	What are the Program specific objectives of this program?	PEO No. Education Objective
		PSO1: Develop expertise in various advanced imaging modalities such as Magnetic Resonance Imaging (MRI), Computed Tomography (CT), Ultrasound, Nuclear Medicine, and X-ray imaging.
		PSO2: Acquire hands-on skills and clinical experience in performing and interpreting radiological and imaging procedures with precision and accuracy.
		PSO3: Understand the principles of radiation safety and protection to ensure the well-being of patients, healthcare professionals, and the general public.
		PSO4: Implement quality control measures to maintain high standards in medical imaging equipment

Signature

Dean
Faculty of Paramedical Sciences
UNMS Selfal

		and procedures, ensuring accurate diagnosis and patient care.
		PSO5: Foster research abilities to contribute to the advancement of medical imaging technology and explore innovative approaches to imaging diagnosis and treatment
		PSO6: Develop effective communication skills and a patient-centric approach, ensuring ethical practice and empathy in dealing with patients and their families.
		PSO7: Radiology Management: Acquire knowledge of healthcare administration and management principles relevant to medical imaging departments and practices.
		PSO8: Interdisciplinary Collaboration: Collaborate effectively with other healthcare professionals, such as physicians, surgeons, and oncologists, to provide comprehensive patient care.
32	Model of Paper (For Theory & Practical both)	Annexure-C attached at the bottom of this questionnaire
33	What are Eligibility Criteria For Examiners? (External & Internal)	Minimum five years post PG Teaching Experience as Lecturer/ Asst. Professor and above.
34	What are the criteria for commencement of examination (Annual/Supple) twice annually?	University examinations are conducted Semester wise.

[Handwritten Signature]

[Handwritten Signature]
Dean
Faculty of Paramedical Sciences,
UPUMS Saifal

35	<p>What are the Criteria for Internal Assessment? (Notes/practical file/Chart/Attendance/Discipline/Dress)</p>	<p>INTERNAL ASSESSMENT: Two internal examinations shall be conducted in a semester.</p> <p>It will be for theory and practical both.</p> <p>It will be done throughout the semester.</p> <p>Candidate must obtain at least 35% marks in theory and practical separately in internal assessment to be eligible for the university semester end examination.</p> <p>Internal assessment (Theory) will be done as follows :</p> <p>a) Mid-semester examinations = 15 marks b) Assignments/Projects/Class test/Clinical Presentations = 05 marks c) Attendance = 05 marks Total = 25 marks</p> <p>Internal assessment (Practical) will be done as follows :</p> <p>a) Laboratory manual = 15 marks b) Day to day performance = 05 marks c) Attendance = 05 marks Total = 25 marks</p>						
36	<p>How many semesters are present in an academic year?</p>	<table border="1"> <thead> <tr> <th>Semester</th> <th>Starting Month</th> </tr> </thead> <tbody> <tr> <td>ODD Semester 1st, 3rd</td> <td>August to January</td> </tr> <tr> <td>EVEN Semester 2nd, 4th</td> <td>February to July</td> </tr> </tbody> </table>	Semester	Starting Month	ODD Semester 1 st , 3 rd	August to January	EVEN Semester 2 nd , 4 th	February to July
Semester	Starting Month							
ODD Semester 1 st , 3 rd	August to January							
EVEN Semester 2 nd , 4 th	February to July							
37	<p>What is the Examination Paper Pattern for internal and external examination? (Objective or Subjective)</p>	<p>Subjective</p> <p>Annexure C</p>						
38	<p>What are the Passing Criteria?</p>	<p>The passing marks for every course/Subject in the semester should be 50% marks. (Semester end examination combined with Internal examination marks) in theory and practical considered separately</p>						
39	<p>What are the Criteria for Semester back students?</p>	<ol style="list-style-type: none"> 1. If any student enrolled the end semester examination unable to appear in all the courses of that examination then he/she has to repeat the semester with the regular batch. 2. If the student is not fulfilling the eligibility criteria for semester end examination for what so ever reason, then he/she has to repeat the semester with the regular batch. 						
40	<p>What are the schedules for conduction of Odd and Even semester end examination?</p>	<p>Odd semester end examination will be conducted in the month of December/January and Even semester end examination will be conducted in the month of June/July.</p>						

Sumit


Dean
Faculty of Paramedical Sciences,
UPUMS Salfal.

41	What are the Criteria for the Promotion to next semester?	<ol style="list-style-type: none"> 1. The student will be promoted to next semester after Semester end University examination: 2. The student is allowed to carry forward the failed courses to the next semester only if he/she passes 50 % of the courses in that semester. 3. The student can carry forward such courses till 4th semester.
42	What are the eligibility criteria to appear in the final semester examination?	The candidate can carry forward the failed Courses till 4 th semester. The candidate shall pass all the failed Courses of previous semesters before appearing for 4 th semester.
43	What are the criteria for carry forward examinations?	<ol style="list-style-type: none"> 1. Attendance and Internal assessment marks as per the norms mentioned above. 2. Carry forward courses as per the norms mentioned above
43	What are the Criteria for Grace Marks?	The student has failed in only one course and has passed in all the other courses of a particular semester then grace marks of up to 5 marks to theory marks can be added for one course only, provided that by such an addition the student passes the course and end- semester examination.
44	What are the Criteria for Reviewing of answer paper of failed candidates (Scrutiny/Re-totaling, Re-checking)?	<ol style="list-style-type: none"> 1. The candidate seeking Scrutiny/Re-totaling of his / her answer script must apply within 10 days from the date of publications of the results. 2. No application will be entertained after the stipulated period mentioned above. 3. Scrutiny/Re-totaling in a maximum of only 2 (two) papers will be allowed. 4. Scrutiny/Re-totaling Fee - Rs.300.00 (rupees three hundred) per paper. 5. The application for Scrutiny/Re-totaling must be submitted directly to the examination department along required document(s). 6. Marks awarded after Scrutiny/Re-totaling shall be retained as the final marks even if such marks may be lower than the marks originally awarded and a fresh mark - sheet shall be issued. 7. No claim whatsoever for retaining the original marks shall be entertained. Application found without original mark sheet shall not be processed. 8. Re-checking is not allowed.
45	What are the Criteria for Challenge Evaluation?	<ol style="list-style-type: none"> 1. For Challenge Evaluation the fee Rs. 3,000/- for each Course is to be paid by the candidate for reevaluation by challenge. 2. The Challenge Evaluation will be carried out by a committee consisting of three members out of which one member may be nominated by Dean of the faculty from where the candidate has studied and two members will be nominated by the University. 3. The final marks will be the average of the marks awarded by the committee of three examiners.

Sumit

@k Dean
Faculty of Paramedical Sciences.
UPUMS Satal.



		4. The application for challenge evaluation must be submitted directly to the examination department..
46	What is the Maximum duration of the program?	Candidates should complete the Master of Medical Radiology & Imaging Technology program within a period of 4 (four) years from the date of joining in the program.
47	What is the classification of successful candidate?	A successful candidate A student obtaining 75% or above marks in any course in first attempt, he/she will be declared pass with distinction in that particular course, and a letter (D) shall be suffixed in the marks sheet against the subject. A student obtaining 60% or above in first attempt in aggregate of that semester will be declared to pass in First division. A candidate securing 50% aggregate or above in all courses of that semester will be declared Pass.
48	What are the criteria for Re-admission of students after break of studies?	Readmission in to the program is allowed only in the condition, that the total duration of the program is not exceeding 4 years.
49	What is the Rule for providing Provisional Passing Certificate?	After successful completion of Final semester (iv) and submission of Dissertation, the student shall have to apply for Provisional Passing Certificate in prescribed application format along with supporting documents to examination department of the university by paying the prescribed fee of Rs. 300/- only. The examination department of the university after scrutiny of application shall provide provisional certificate.
50	What is the Rule for providing original degree?	Original degree will be provided within 6(six) months of successful completion of program/Convocation of the University or whichever is earlier. The candidate shall have to apply for original degree to The, Registrar, Uttar Pradesh University of Medical Sciences, Saifai along with prescribed fee of Rs. 300/- only.
51	What are the Rules for Synopsis & Dissertation?	The candidate eligible for admission in Master of Medical Radiology & Imaging Technology (MMRIT) shall submit a detailed synopsis (5 copies) signed by the guide and by the candidate: 1. The evidence of his/her qualification 2. The topic of same specialty for MMRIT 3. The Course of the proposed research and dissertation 4. The outline of the proposed research work.

Sumit


Dean
Faculty of Paramedical Sciences,
IIPUMS Saifai.



5. The place/Institution where he/she proposes to carry on his/her research work.
6. The name of the guide under whom he/she proposes to carry on his/her research work.

Once the candidate is registered and enrolled for the admission in Master of Medical Radiology & Imaging Technology, he/she shall settle the Course of his/her dissertation work and prepare a brief outline under the guidance of the guide under whom he/she proposes to work and carry out his/her research works within three months of his admission to the program.

Note: A person shall not be appointed Guide to supervise his/her relatives (son, daughter, husband, wife, sister, brother and relative in law)

To consider the synopsis submitted for MMRIT programme of the University for approval the University shall look into the following matters:

- i) That the candidate possesses the requisite qualifications.
- ii) Affidavit from the Management of the College that adequate and appropriate faculty and facilities exist at the place of research for the proposed work.

Documents to be submitted at the time of submission of the Dissertation

- a. The dissertation shall be submitted three months prior to the final examination and approval of dissertation after plagiarism check will be the pre-requisite condition for the final examination eligibility.
- b. The candidate shall submit three copies of his/her dissertation in a format prescribed by the University with 1 research publication in indexed journal as annexure.
- c. Certificate from the guide to the effect that:-(i) The dissertation embodies the work of the candidate himself/ herself.
- e. A Certificate from the Principal of the College to the effect that -The candidate has worked for the period prescribed under the ordinance and has put in the required attendance during that period at the place/s of research and no dues are pending against the candidate.

Evaluation of Dissertation

The examiners shall examine the dissertation and submit their detail report and send final recommendation which shall be in the following form:

- a. The dissertation and any other contribution to the study of the Course of the candidate shall be evaluated by the examiners appointed by the University. The candidate shall be required to present him/herself at specified time and place to be tested orally or by means of written or practical or both.
- b. A dissertation shall be treated as having been accepted on the recommendation of the examiners stating that the dissertation and research work carried out by the candidate is to their satisfaction.
- c. If the examiner recommends revision, the candidate shall be permitted to submit the dissertation in a revised form within the time specified by the University.

Note: The copy of the dissertation in the library of the university and the library of the concerned

Sumit


Dean
Faculty of Paramedical Sciences,
The College



		college shall be kept. Certificate of Supervisor/ Guide This is to certify that work embodied in this dissertation entitled..... has been carried out by..... under my/our supervision and guidance. No part of this dissertation has been submitted for any other degree. The work included in this dissertation is original and is own work of the candidate. <i>Remark: All the research/Dissertation must follow DRC,IEC and IRC SOP of UPUMS as per the requirement.</i>
52	What are the criteria for eligibility of Guide/ supervisor?	The guide/Supervisor to be assigned for PG students should possess Master degree in concerned specialty with 5 years Post-P.G teaching experience in the rank of Lecturer/ Assistant Professor and above. The Guide: Student ratio is 1:3.
55	Whether MMRIT student during his/her program period will get stipend or not?	As per the University Norms.
56	What are the Criteria for Vacation in an academic year for students? (Academic calendar)	As per the academic calendar prepared every academic year approved by the University.
57	What are the criteria for award of Degree?	A candidate passing in all semesters/ courses and satisfactory completion of Dissertation is eligible for award of MPT degree.
58	Details for syllabus & curriculum?	Syllabus attached at the end of this table as Annexure D
59	Is curriculum credit hour based?	Yes. It is mentioned in Annexure D

[Handwritten Signature]

[Handwritten Signature]

Dean
Faculty of Paramedical Sciences,
IIPUMS Saifal



Is CGPA followed for evaluation and assessment?

The UGC has recommended system of awarding grades and CGPA for all the UG/PG programs. UPUMS would be following the absolute grading system, where the marks are compounded to grades based on pre-determined class intervals. The UGC recommended 10-point grading system with the following letter grades will be followed:

Table 1: CGPA Grading System - Marks Equivalence Table

Letter Grade	Grade Point	% of Marks
O (Outstanding)	10	86-100
A+ (Excellent)	9	70-85
A (Very Good)	8	60-69
B (Good)	7	55-59
C (Above Average) –	6	50-54
F (Fail) // RA (Reappear)	0	Less than 50
Ab (Absent)	0	-
NC- not completed	0	-
RC- Repeat the Program	0	0

A student obtaining Grade F/RA will be considered failed and will require reappearing in the examination.

Candidates with NC grading are those detained in a program (s); while RC indicate student not fulfilling the minimum criteria for academic progress or less than 50% attendance or less than 50% in internal assessments (IA). Registrations of such students for the respective programs shall be treated as cancelled. If the program is a core program, the candidate has to re-register and repeat the program when it is offered next time.

Table 2: Cumulative Grades and Grade Points

Letter Grade	Grade Point	CGPA
O (Outstanding)	10	9.01 - 10.00
A+ (Excellent)	9	8.01 - 9.00
A (Very Good)	8	7.01 - 8.00
B (Good)	7	6.00 - 7.00
C (Above Average)	6	5.01 - 6.00

Assessment of a Program:

Evaluation for a program shall be done on a continuous basis. Uniform procedure will be adopted under the CGPA to conduct internal assessments, followed by one end-semester university examination (ES) for each program.

Programs in programs where in Theory and Practical/Clinical are assessed jointly, the minimum passing head has to be 50% Grade each for theory and practical's separately. RA (Re appear) grade in either of the components will amount to reappearing in respective components only. i.e. the student failing in theory/practical shall appear in theory/practical respectively.

[Handwritten Signature]

[Handwritten Signature]
Dean
Faculty of Paramedical Sciences,
UPUMS Saifal



Computation of SGPA and CGPA

The UGC recommends the following procedure to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):

- i. The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the programs taken by a student and the sum of the number of credits of all the programs undergone & earned by a student, i.e.,

$$SGPA (S_i) = \frac{\sum(C_i \times G_i)}{\sum C_i}$$

where C_i is the number of credits of the i th program and G_i is the grade point scored by the student in the i th program.

- ii. The CGPA is also calculated in the same manner taking into account all the programs undergone & earned by a student over all the semesters of a programme, i.e.

$$CGPA = \frac{\sum(C_i \times S_i)}{\sum C_i}$$

where S_i is the SGPA of the i th semester and C_i is the total number of credits in that semester.

The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.

61	Is Sponsored candidate allowed to get admission in this program?	No
62	How many days of leave is allowed for the Students during a semester?	No leave is permitted.
63	How to Leave the program in between?	The student can be allowed to leave the program on submission of No dues certificate and no caution deposit will be refunded.
64	Academic calendar	ANNEXURE : E
65	Format for Various certificates issued by Faculty of paramedical sciences	ANNEXURE : F <ol style="list-style-type: none">1. Character certificate2. College leaving certificate3. Program completion certificate4. Internship completion certificate5. No objection certificate6. No dues form for Hostel

Sumit

Dean
Faculty of Paramedical Sciences,
IPJIMS Salfal



		<p>7. No dues form for college.</p> <p>8. Admission form</p> <p>9. Hostel admission form</p> <p>10. Caution money refund form</p> <p>11. Temporary Documents withdrawal form</p>
66	Fee structure	ANNEXURE G
67	Is there any Internship in the MMRIT program?	No Internship in MMRIT program.
68	What are the rules and regulations for forming DRC?	<p><i>Composition and SOP's of Departmental Research Committee (DRC)/Institutional research committee (IRC)- Annexure H</i></p> <p>If the proposed research work entails experimental work on humans or work in the animal laboratory, the application shall be accompanied by a certificate of clearance has to be obtained from concerned Govt. approved Institutional Ethics Committee (IEC).</p> <p>If the experimental study involves clinical trial (RCT), then the study should be registered with CTRI (Clinical trials registry of India)(As per the IEC SOP).</p> <p>External guide from outside Institution/place of clinical posting will be allowed to guide and supervise the research work of the candidate provided the external guide satisfies qualification as per norms.</p> <p>The candidate shall meet and discuss with the guide the plans and progress of his/her research work when the guide ask him/her to do so.</p> <p>The candidate shall submit the plans and progress of his/her research in a prescribed format once in 6 months. The progress reports will be reviewed by the Research Committee.</p> <p>The candidate should publish at least one article in any indexed journal and it should be annexed in the dissertation.</p> <p>When the dissertation is ready for submission to the university, the student shall also certify that the work presented in the dissertation is the candidate's own work and shall submit the draft thesis for plagiarism check in the University. The University will perform plagiarism checks of research work through an University approved software and only when it is satisfied that the research work is free of plagiarism shall the thesis work be accepted for submission for award of marks.</p>
69	How work dairy is maintained by the PG student?	<p>Every candidate shall maintain a work diary and record his/her participation in the training programmers conducted by the department such as journal reviews, seminars etc.</p> <p>Special mention may be made of the presentations by the candidate as well as details of clinical or laboratory procedures, if any conducted by the candidate. The work diary shall be scrutinized and</p>

[Handwritten Signature]

Dean
Faculty of Paramedical Sciences,
JSSM Saifai



	certified by the Head of the Department and Head of the Institution and presented in the university examination.
70 What are the rules for periodic evaluation of PG students ?	<p>The College may conduct periodic tests. The test may include written theory papers, practical and clinical tests in the pattern of university examination. Records and marks obtained in such tests will be maintained by the Head of Department and sent to the University, when called for.</p> <p>The assessment will be comprised of Formative and Summative assessments comprising of -</p> <ol style="list-style-type: none"> 1. Theory, inter-departmental meeting 2. Practical, clinical rounds and bed side evaluation & application. 3. Journal club 4. Dissertation 5. Open discussion, debate, Viva. 6. Seminars, recent advances, case presentation, discussion and clinical conference. <p>Learning Activities : Self Learning, Use of computers & library.</p> <p>Participation in departmental activities;</p> <ul style="list-style-type: none"> o Journal Review meetings o Seminars o Film Discussion o Inter departmental meetings o Dissertation work o Participation in conferences/ presentation of paper -Minimum 2 in two years o Any other – Specify (eg : CME) o Rotation and posting in department

Examination	
1	<p>Criteria for Processing of Admit Cards, Roll List & Verification?</p> <p>Admit Card</p> <p>1 The Admit Card is issued to all the eligible candidates admitted to the University examination.</p> <p>2 Admit Card shall contain information regarding the Name of the candidate, Father Name, Mother Name, Enrolment number, Roll number, centre name and address, Photograph, signature of candidate, Signature of COE, Programme of Study, Semester/Year,</p>

[Handwritten Signature]


Dean
 Faculty of Paramedical Sciences,
 UPUMS Saifal

		<p>Department and the Code numbers and name of the Subject (s) in which he/ she is registered for the current examination.</p> <p>3 The office of the COE shall send the Admit Cards to the concerned Departments at least 3 days before the commencement of the examinations. The Department office shall distribute it after due verification to the concerned student with due acknowledgement by signature. If any discrepancy or error is found in the Admit Card, it should be communicated to the concerned examination section with the recommendation of the Head of the Department</p>
2	<p>Procedure for sending Admit card, Roll List, Verification to college and respective Department?</p>	<p>A list of all eligible candidates for each examination shall be prepared after thorough scrutiny and accounting for attendance or other deficiencies.</p> <p>The list shall contain the candidate's name, Enrolment number, Roll number and the Code numbers of the courses/ subjects in which he/ she has registered for appearing in the Examination.</p> <p>The programme-wise list of candidates shall be sent to the concerned Departments of Teaching/ Study along with the printed Admit Cards.</p> <p>Programme-wise list shall also be made available at the Control Room of theory examinations centres for verification in certain exigencies/ circumstances by the Chief Superintendent.</p>
3	<p>What is the Criteria for Question Paper Pattern?</p>	<p>Annexure C</p>
4	<p>Who will be the question paper setter?</p>	<p>No one can claim appointment as paper setter/ moderator or any other examination work as a matter of right. The COE shall finalize the question paper setters/ scrutinizers from the BoE.</p> <p>No person shall be appointed as a paper-setter for an examination if any of his/her near relatives are appearing for that examination.</p> <p>The paper setters/ moderator are required to submit their intention of acceptance/ decline of the offer.</p> <p>The Internal paper setters/ moderator shall normally not decline the assignment of examination work except in extraordinary situations since examination duty is treated as an essential service by the University. The external paper setters/ moderator shall intimate their acceptance or otherwise as soon as they receive the communication from the University or in the prescribed time limit (one week). The acceptance of the offer may also be informed by email to the COE. If no communication is received within the prescribed time limit, it will be presumed that the assignment is not accepted by the paper setter/ scrutinizer.</p> <p>If by chance, a wrong subject has been assigned to the paper-setter, he shall indicate the same and decline the offer. He shall NOT accept an offer that is NOT related to his subject/ expertise/ knowledge domain.</p> <p>The paper setters/ scrutinizers/ examiners shall follow all the regulations of the University from time to time in respect of setting of question papers, scheme of evaluation etc.</p>

[Handwritten Signature]

[Handwritten Signature]
Dean
Faculty of Paramedical Sciences,
Sri Jayachamarajendra Medical College, Mysore



<p>Who will be the moderator of question paper and what are their role in moderation of Question paper?</p>	<p>1. Question paper moderator are appointed from the current Examiners panel as a validation process for the purpose of carefully examining the question papers for any aberrations, errors, spelling mistakes, pattern, scope, distribution of marks etc. or any other lapse and providing necessary corrections.</p> <p>2 The Question paper moderator shall be present in the office of the COE of the University on the assigned date and time to fulfil the given responsibility.</p>
<p>6 What will be required number of sets of Question Paper?</p>	<p>The Paper setter shall set the number of sets of question papers as requested, as per the prescribed pattern containing questions covering a wide range of contents of the courses for which they are set and send them all in sealed packets to the COE or in password protected file through e-mail.</p>
<p>7 What is the amount payable for Paper setting question paper, evaluation of answer scripts, etc ?</p>	<p>As per University norms</p>
<p>8 What are the criteria for Question Paper Printing, Content of paper and sealing process of question paper?</p>	<p>All arrangements shall be made to get the required sets of question papers for each paper of examination sufficiently in advance to the commencement of the examination period.</p> <p>The question paper (s) shall meet the specifications/ pattern as per the academic regulations of each programme of study in the University. Question papers for each subject shall be available in multiple sets to meet any eventuality</p>
<p>9 What is the process for sealing question paper?</p>	<p>The question paper-setters shall be communicated regarding their appointment together with the necessary instructions, syllabus, model question papers, question paper pattern, forms of acceptance, inner cover and outer cloth cover, remuneration forms and other related stationery etc or same with e-mail.</p> <p>The Paper setter shall ensure that the question papers set carry the correct name of the subject, Title and code of the paper, applicable Regulation (s). He/ she shall also indicate the duration of the paper, the maximum marks allotted to each question of the paper, choice, and maximum marks of the full paper. If the question paper is common to one or more schemes/courses, it shall be clearly indicated.</p> <p>The Paper setter must carefully paste the inner cover provided by the University and affix his/ her signature on the joints of the cover and fix a cellophane tape on the signatures. The Paper setter shall fill in all the details required on the inner cover. This inner cover shall then be enclosed in a cloth-lined outer envelope marked "CONFIDENTIAL" and sent through Speed Post/ Registered post to the Controller of Examinations, or delivered to the COE in person.</p>
<p>10 What is the process of transporting question Paper to the</p>	<p>It should be verified that sufficient quantum of Question Papers of each paper have been received in sealed envelopes. The sealed envelopes are arranged date-wise, hall-wise and paper-wise and kept inside a sealed almirah/safe/ locker. A copy of the time table is kept in the</p>

Handwritten signature

Dean
Faculty of Paramedical Sciences,
1101111111



<p>examination hall?</p>	<p>almirah/ safe with the envelopes of Question Papers. This should be available for ready reference every day. It should be seen every day before taking out the envelopes before the scheduled time of the examination</p>
<p>11 What are the criteria for UFM?</p>	<p>The following shall be the procedure for dealing with the cases of candidates found using or suspected of using unfair-means or involved in malpractice or misconduct in connection with the examinations:</p> <p>Where a candidate is suspected of using unfair means as defined above, the HS or the centre superintendent or any other member of the supervisory staff or observer shall search the candidate and/ or his belongings. Where any written or printed material is found in his possession as a consequence of the search, the matter is taken to the notice of the Centre Superintendent of Examination centre. The candidate's answer booklet shall be confiscated along with the material recovered.</p> <p>The Centre Superintendent shall hold a preliminary enquiry, record the report of the Hall Superintendent, the statement of the candidate in the presence of a teacher other than the HS concerned. On sufficient grounds, the Centre Superintendent shall forthwith suspend the candidate from writing the examination and withdraw the admission ticket.</p> <p>The Centre Superintendent shall thereafter obtain a statement/ undertaking of the student. The HS shall provide his/ her report. CS shall countersign both the report and the statement. The candidate shall be made to affix his/ her signature on the incriminating materials used in the malpractice. Answer scripts of all such cases are packed separately.</p> <p>If the candidate refuses to give a statement, he/she should be asked to record in writing his/her refusal to give a statement. If he/she refuses to give a statement, the facts shall be noted duly witnessed by two members of the supervisory staff.</p> <p>If the candidate refuses to hand over the incriminating material or destroys or runs away with the material (causes to disappear) the facts shall be noted duly witnessed by two members of the supervisory staff and the matter reported to the Centre Superintendent immediately.</p> <p>In case of Misconduct/ insolent behaviour (i.e. verbal or nonverbal e.g. gestures), the Supervisor or concerned authorized person shall record the facts in writing and shall report the same to the Controller of Examinations.</p> <p>The answer scripts, relevant question paper(s), statement of the errant-examinee and the incriminating materials confiscated shall be packed in a cover and labelled. This packet in turn shall be placed in an outer cover along with the HS Report(s) of all such cases along with the consolidated report of the CS on cases of malpractices for the session. It is reiterated that these Answer scripts should NOT be packed with the other Answer scripts. They should be placed in a separate packet and sealed. It is the responsibility of the Centre's Chief Superintendent to ensure that the malpractice related bundle is securely despatched to the COE with appropriate labelling.</p> <p>A record of such malpractice shall be maintained at the examination centre in order to prevent</p>

Signature

Dean
 Faculty of Paramedical Sciences,
 IIPUMS Saifal

such candidates from appearing in subsequent examinations by pretending to have lost the Admit Card.

The Office of the COE shall open only the outer cover containing the reports of HS/ CS and the inner cover/ packet containing the malpractice related answer scripts, statement of the errant-examinee and the incriminating materials confiscated shall not be opened. Based on the reports of HS/ CS, the COE shall place such cases before the Examination Malpractices Enquiry Committee (EMEC) along with all the materials and records received by him/ her.

Post-Examination, if the examiner at the time of assessment of answer-booklet(s) suspects that there is a prime facie evidence that the examinee(s) whose answer script(s) the examiner is assessing appears to have resorted to malpractice, he/ she shall forthwith stop further evaluation and return the answer script with a report prepared by him under his/ her name and signature to the Chairman of the Board in separate confidential sealed envelope marked as "Suspected Malpractice case". The Chairman shall forward the same to the COE along with his/ her remarks and signature. If the suspicion arises or malpractice is suspected after script is already valued, marks shall not be entered in the OMR Sheet or marks list along with other students but enter them in a separate list and hand over to the custodian who in turn shall forward the same to the COE in a sealed cover.

12 Procedure of evaluation of Answer sheet
Procedure of reevaluation of Answer sheet
Procedure of Scrutiny of Answer sheet
Procedure of challenge evaluation of Answer sheet

Dummy Number Printing of Answer-scripts is undertaken after due random shuffling of the Answer - scripts. The part revealing the identity of the candidate is then cut off from the cover page of the Answer-script in a secure manner and stored safely in the custody of the COE as quickly as possible.

The Identity masked and dummy number printed Answer-scripts are then packed in packets. On the day of commencement of Central Valuation, the Identity masked Answer-script packets shall be transferred to Valuation Centre and Custody Transfer to Chairman of the respective BoE. In the case of the valuation done by the course teacher himself/herself, he/she has to collect the answer scripts from the examination section after verifying the number of papers.

A period of Central valuation of answer scripts is finalized by the COE in consultation with the respective Chairman of the Board of Examiners.

The shortlisted examiners are issued appointment order to evaluate the answer-scripts of the University examination along with a form in which they shall express their acceptance/ decline of the offer within the stipulated period.

All theory answer scripts shall be sent to the central valuation center (CVC) securely after the due process of assigning Dummy numbers and removal of the flap containing the examinee's Register number.

Only examiners duly appointed by COE/ the Chairman, Board of Examiners, approved by the University should be assigned valuation work and none else.

The Chairman of the Board shall ensure that the Registers pertaining to issuing of Answer-scripts to the Examiners, receiving of assessed answer-scripts from the Examiner are

Signature


Gean
Faculty of Paramedical Sciences,
UPUMS Saifal



maintained properly

Only one packet of answer-scripts shall be given for valuation, one after another i.e., after completing the Valuation of answer scripts of the previous packets. Only 40-60 answer-scripts should be issued for evaluation to each examiner in a day.

The Chairman of the Board shall remind the examiners to ensure that the papers are valued strictly in accordance with the scheme of valuation, if any, and that the papers are not valued in a hurry.

Daily account to be maintained regarding the number of answer packets valued and number of OMR sheets sent to the COE from time to time with acknowledgement.

Re-evaluation:

Re-evaluation is applicable only for theory papers and shall not be entertained for other components such as practical/ Thesis/ Dissertation etc.

Every application for revaluation should be submitted by the candidate in the prescribed form along with the prescribed fee so as to be received by the Controller of Examinations within TWO WEEKS of obtaining the photocopy of the answer-script.

Re-evaluation of answer-scripts can be sought only with at least one affirmation by a teacher relevant to the subject as mentioned below and that any of the criteria below are satisfied:

Finds that any answer(s) to question(s) that has/ have not been evaluated

Finds that the answer-script valuation in full or part is not justified and there is reasonable ground for re-evaluation.

The application for revaluation shall be submitted to the Controller of Examinations through the HOD of the concerned Department of study.

The COE shall arrange for re-evaluation of such answer-scripts by an examiner from the approved panel of examiners. If there is a difference of more than 15% of maximum marks between the first valuation and Re-evaluation, the average of the original and reevaluated marks shall be awarded to the candidate. Otherwise the candidate is entitled to the marks advantageous to him/ her.

The marks awarded by the original examiner if marked on the answer scripts shall be concealed from the answer script and sent for revaluation.

In cases of Re-evaluation(s), the University may provide two Answer-scripts of candidates who have secured high marks in the concerned paper/ subject to serve as bench-mark for re-evaluation.

In all cases of Re-evaluation, Fees once paid will not be refunded. Applications which are late and not in the prescribed form and which are found defective in any respect will not be entertained and will be summarily rejected without notice. In the case of applications

[Handwritten signature]


Dean
Faculty of Paramedical Sciences,
11/11/11



Which are found in order, the University shall take steps to get the answer-scripts re-evaluated.

The result of the reevaluation shall ordinarily be made known to the student through the Head of the Department within 2 months of the last date of receipt of applications by the Office of the Controller of Examinations. No interim enquiries of any kind will be entertained in this regard. It may be noted that the University can never set in any case a time limit for the issue of the results of reevaluation. The University will also therefore, not be liable for loss of any kind sustained by candidates concerned on account of the delay, if any, in issuing the results of reevaluation.

Issue of Duplicate Admit Card/ Mark Statement/ Transcripts/ Consolidated Marks Statements/ Degree Certificate may be done after due application process with the necessary fees/ fine.

13 Process of result Preparation
Publication of Result
Printing of Mark sheet, Migration Certificate, Provisional Certificate
Provisional degree, Original Degree, Internship completion certificate, Cause completion certificate

There shall be restricted/ classified zones within the office of COE with adequate security measures to ensure that no unauthorized person has access to sensitive materials or information that would affect the outcome of examination process. Only authorized persons shall have access to these areas.

All the data processing relevant to the marks shall be done in these restricted/ classified zones.

Marks Tabulation and Validation

The results of each of the examinations shall be tabulated in the Examination Database maintained on well secured Computer server with restricted access. The persons responsible for such activity may be referred to as Marks-Tabulators.

Marks-Tabulator(s) shall be appointed by COE with the approval of Vice-Chancellor.

Marks-Tabulator(s) shall be staff members of the University working in the office of COE. They shall possess sufficient computer programming and database (SQL & RDBMS) skill and experience.

The marks tabulated by the Marks-Tabulator shall be scrutinized and validated by a Validator who shall be appointed by the COE. Validator(s) shall be drawn from the teaching faculty of the University.

The Validator shall:

- Check the posting made by the Marks-tabulators from the original statement submitted by the examiner
- Check totals/aggregates posted by Marks-tabulator;
- Check the implementation of the resolutions of the Passing BoE;
- Check the result prepared by the Marks-Tabulator for failures, honors such as Distinction, Pass, Fail, and Absentees etc.
- Validate the Grades, GPA and CGPA etc. computed on the basis of the marks obtained by the candidates in examination.

Any other discrepancy/ errata/ manipulation/ inconsistency etc. that might have crept into the

Amir

Dean
Faculty of Paramedical Sciences,
IPUMS Saifal

EQUIPMENTS

ANNEXURE -A

The institution should have all the following equipments for MMRIT program

1. Processing Equipment:

Automatic and manual Processing

2. Conventional and CR/DR X-ray Unit

- High Capacity (500 mA and above)
- Dedicated Chest X-Ray / Orthopedic / Casualty X-Ray Units
- C-arm

3. Mobile X-ray unit

4. Fluoroscopic unit

- High Capacity (500 mA and above) with I.I.T.V/Flat panel

5. Ultrasonography including Colour Doppler Equipment

6. Multi-slice (Above 16 slice) C.T. Scanner

- with accessories like laser camera, Pressure injector, Phantom for QCT and all application software

7. Mammography Equipment

8. MRI Scanner (1.5 Tesla or above)

- With accessories like laser camera and all application software like for functional MRI, MR Spectroscopy.

9. Cath lab/DSA Lab (preferably)

10. DEXA (Preferably)

11. Quality Assurance Tool Kits with all accessories




Dean
Faculty of Paramedical Sciences,
UPUMS Salfat

ANNEXURE-B

PROGRAM OUTCOMES (POs):

After successful completion of Master of Medical Radiology & Imaging Technology program, students will be able to:

PO No.	Attribute	Competency
PO 1	Fundamental Competencies	Applies fundamental competencies in the performance of tasks assigned.
PO 2	Safe Work Practices	Conducts professional practice according to established protocols, safety guidelines and existing legislation.
PO 3	Communication and Interactions	Interacts in a professional and competent manner, using effective listening, verbal and written communication in dealing with laboratory colleagues, patients, clients and other health professionals.
PO 4	Film Processing	Perform X-ray film / image processing techniques (including dark room techniques)
PO 5	Quality Assurance	Follows quality assurance policies and procedures and participates in quality assurance initiatives.
PO 6	Communication	Collate and Communicate Health Information within and between the departments. Make decisions on information to be communicated based on needs of the individual and various regulations and guidelines
PO 7	Professionalism	Meets the legal and ethical requirements of practice and protect the patient's right to an established standard of care. Professional responsibility encompasses scope of practice, accountability, and professional development.
PO 8	Practical Skills	<p>Able to Operate and oversee operation of radiologic equipment,</p> <p>To be able to process radiographic images and prepare and document reports,</p> <p>Recognise contrast induced adverse reactions</p> <p>Collate and communicate health information</p> <p>Ensure availability of medical and diagnostic supplies</p> <p>Maintain a safe, healthy and secure environment</p> <p>Making sure that the radiation safety guidelines are followed</p> <p>Making sure that biomedical waste disposal protocols are followed</p> <p>Making sure that the infection control policies and procedures are followed</p> <p>Monitor and assure quality.</p>

[Handwritten Signature]

[Handwritten Initials]
Dean
 Faculty of Paramedical Sciences.

COURSE OUTCOMES

- CO-1: Demonstrate knowledge to interpret and evaluate a prescription
- CO-2: Communicates relevant information to other members and completes accurate documentation
- CO-3: Demonstrates knowledge of accurate position and ability to position all patients as per instructions
- CO-4: Recognize contrast induced adverse reactions
- CO-5: Collate and communicate health information
- CO-6: Operate and oversee operation of radiologic equipment
- CO-7: Maintain a safe, healthy and secure environment
- CO-8: Demonstrates ability to carry out the daily organization of the medical imaging unit
- CO-9: Demonstrates ability to interpret, apply and disseminate information as a member of the medical Imaging team
- CO-10: Demonstrates professional behavior
- CO-11: Demonstrates a sensitive and caring attitude towards the patient
- CO-12: Demonstrates ability to prepare the patient for the procedures.
- CO-13: Demonstrates ability to carry out the necessary data transfer checks
- CO-14: Demonstrate the ability to process and produce good quality radiographic mages.
- CO-15: Demonstrates ability to carry out treatment verification
- CO-16: Demonstrates ability to carry out corrective actions as per instructions
- CO-17: Demonstrates knowledge to check the dosage
- CO-18: Implements health and safety procedures
- CO-19: Demonstrates ability to interpret, apply and disseminate information as a member of the medical Imaging team
- CO-20: Demonstrates knowledge and skills to carry out the daily/weekly Quality Control (QC) checks
- CO-21: Participates in research activities

[Handwritten Signature]

[Handwritten Initials]

Dean
Faculty of Paramedical Sciences,
UPUMS Saifal

Program Outcomes (POs) and Course Outcomes (COs) Mapping

Program Outcomes	Program Code	Program Title	Program Outcomes
I PO1, PO2	MRT-101	Planning & Management of a Radiology & Imaging department	CO5, CO6, CO7
I PO4, PO8	MRT-102	Modern Imaging Techniques	CO2, CO3, CO4, CO6, CO7, CO11, CO12, CO13, CO14, CO15, CO14, CO1, CO16, CO17, CO18, CO19, CO20, CO21
I PO4, PO8	MRT-103	Advanced Physics of Radiology & Imaging	CO2, CO3, CO4, CO6, CO7, CO11, CO12, CO13, CO14, CO15, CO16, CO17, CO18, CO19, CO20, CO21
I PO3, PO7, PO8	MRT-104	Research Methodology and Biostatistics –I	CO1, CO2, CO3, CO4, CO5, CO6, CO7, CO8, CO9, CO10, CO11, CO12, CO13, CO14, CO1, CO16, CO17, CO18, CO19, CO20, CO21
II PO1, PO2, PO7, PO8	MRT-201	Radiation Safety and Protection- AERB guidelines	CO1, CO2, CO3, CO4, CO6, CO7, CO8, CO9, CO10, CO11, CO12, CO13, CO14, CO15, CO16, CO17, CO18, CO19, CO20, CO21
II PO4, PO8	MRT-202	Modern Radiological and Imaging Equipment	CO2, CO3, CO4, CO4, CO7, CO11, CO12, CO13, CO14, CO15, CO16, CO17, CO18, CO19, CO20, CO21
II PO2, PO3, PO4, PO7, PO8	MRT-203	Radiological and Imaging Procedures	CO1, CO2, CO3, CO6, CO7, CO8, CO9, CO10, CO11, CO12, CO13, CO14, CO15, CO16, CO17, CO18, CO19, CO20, CO21
II PO3, PO7, PO8	MRT-204	Research Methodology and Biostatistics – II	CO1, CO2, CO3, CO4, CO6, CO7, CO8, CO9, CO10, CO11, CO12, CO13, CO14, CO15, CO16, CO17, CO18, CO19, CO20, CO21
II PO3, PO6, PO7	MRT-205	Workshop	CO1, CO2, CO7, CO8, CO9, CO10, CO11, CO12, CO16, CO17, CO18, CO19, CO20, CO21
III PO1, PO2, PO5, PO7, PO8	MRT-301	Quality Assurance and Quality Control in Diagnostic Radiology and Imaging	CO1, CO2, CO3, CO4, CO6, CO7, CO8, CO9, CO10, CO11, CO12, CO13, CO14, CO15, CO16, CO17, CO18, CO19, CO20, CO21

[Handwritten Signature]

[Handwritten Initials]

Dean
Faculty of Paramedical Sciences,
UPUMS Saifal



	PO4, PO8	MRT-302	Newer Imaging Modalities	, CO2, CO3, CO4, CO6, CO7, CO11, CO12, CO13 CO14, CO15, CO18, CO17, CO18, CO19, CO20, CO21
III	PO2, PO3, PO4, PO6, PO7, PO8	MRT-303	Intervention Radiological Techniques and Care of Patient	CO1, CO2, CO3, CO4, CO5, CO6, CO7, CO8, CO9 CO10, CO11, CO12, CO13 CO14, CO15, CO16, CO17, CO18, CO19, CO20, CO21
III	PO3, PO6, PO7	MRT-304	Workshop/Seminars/Project	CO1, CO2, CO5, CO7, CO8, CO9 CO10, CO11, CO12, CO16, CO17, CO18, CO19, CO20, CO21
III	PO2, PO7, PO8	MRT-305	Residency-I	CO1, CO2, CO3, CO4, CO5, CO6, CO7, CO8, CO9 CO10, CO11, CO12, CO13 CO14, CO15, CO16, CO17, CO18, CO19, CO20, CO21
IV	PO3, PO7, PO8	MRT-401	Newer Developments in Advanced Imaging Technology and Biostatics	CO1, CO2, CO3, CO4, CO5, CO6, CO7, CO8, CO9 CO10, CO11, CO12, CO13, CO14, CO1, CO16, CO17, CO18, CO19, CO20, CO21
IV	PO4, PO7, PO8	MRT-402	Nuclear Medicine Imaging Techniques	CO1, CO2, CO3, CO4, CO5, CO6, CO7, CO8, CO9 CO10, CO11, CO12, CO13 CO14, CO1, CO16, CO17, CO18, CO19, CO20, CO21
IV	PO6, PO7, PO8	MRT-403	Seminars, Journal Club and Group Discussions	CO1, CO2, CO3, CO4, CO5, CO6, CO7, CO8, CO9 CO10, CO11, CO12, CO13 CO14, CO1, CO16, CO17, CO18, CO19, CO20, CO21
IV	PO1, PO6, PO8	MRT-404	Project Work	, CO2, CO3, CO4, CO6, CO7, CO11, CO12, CO13 CO14, CO1, CO16, CO17, CO18, CO19, CO20, CO21
IV	PO2, PO7, PO8	MRT-405	Residency-II	CO1, CO2, CO3, CO4, CO5, CO6, CO7, CO8, CO9 CO10, CO11, CO12, CO13 CO14, CO1, CO16, CO17, CO18, CO19, CO20, CO21

Sumit

Dean
Faculty of Paramedical Sciences,
UPUMS Saifal



ANNEXURE-C
MODEL QUESTION PAPER
M.P.T MAIN EXAMINATIONS-20—

PAPER CODE:
MAX. MARKS: 75

SEMESTER-
TIME: 3 HRS

1. LONG ANSWER TYPE QUESTIONS 5 x 10 = 50 marks

- 1.
- 2.
- 3.
- 4.
- 5.

2. SHORT ANSWER TYPE QUESTIONS 5 x 5 = 25 marks

- 1.
- 2.
- 3.
- 4.
- 5.

Note: All questions are compulsory. No choice is given.

Signature


Dean
Faculty of Paramedical Sciences,
M.P.T. Hospital, Raigarh

Regulations: Scheme of Examination
M.Sc. in Medical Radiology & Imaging Technology (MMRIT)

University Examination (SEMESTER – I)

Course Code	Course(s)	External Marks	Internal Marks	Minimum Marks	Total Credits
MRT-101	Planning & Management of a Radiology & Imaging department	75	25	100	06
MRT -102	Modern Imaging Techniques	75	25	100	06
MRT -103	Advanced Physics of Radiology & Imaging	75	25	100	06
MRT -104	Research Methodology and Biostatistics –I	75	25	100	05
MRT-111	Planning & Management of a Radiology & Imaging department	75	25	100	03
MRT-112	Modern Imaging Techniques	75	25	100	03
MRT-113	Advanced Physics of Radiology & Imaging	75	25	100	03
Total				700	32

University Examination (SEMESTER – II)

Course Code	Course(s)	External Marks	Internal Marks	Minimum Marks	Total Credits
MRT -201	Radiation Safety and Protection- AERB guidelines	75	25	100	04
MRT -202	Modern Radiological and Imaging Equipment	75	25	100	04
MRT -203	Radiological and Imaging Procedures	75	25	100	04
MRT -204	Research Methodology and Biostatistics – II	75	25	100	05
MRT-211	Radiation Safety and Protection- AERB guidelines	75	25	100	02
MRT-212	Modern Radiological and Imaging Equipment	75	25	100	02
MRT-213	Radiological and Imaging Procedures	75	25	100	02
Total				700	23

University Examination (SEMESTER – III)

Course Code	Course(s)	External Marks	Internal Marks	Minimum Marks	Total Credits
MRT -301	Quality Assurance and Quality Control in Diagnostic Radiology and Imaging	75	25	100	04
MRT -302	Newer Imaging Modalities	75	25	100	04
MRT -303	Intervention Radiological Techniques and Care of Patient	75	25	100	04
MRT-311	Quality Assurance and Quality Control in Diagnostic Radiology and Imaging	75	25	100	02
MRT-312	Newer Imaging Modalities	75	25	100	02
MRT-313	Intervention Radiological Techniques and Care of Patient	75	25	100	02
MRT-314	Workshop/Seminars/Projects/Residency-I			100	04
Total				700	22

University Examination (SEMESTER – IV)

Course Code	Course(s)	External Marks	Internal Marks	Total Marks	Minimum Marks	Total Credits
MRT-401	Newer Developments in Advanced Imaging Technology and Biostatics	75	25	75	100	05
MRT-402	Nuclear Medicine Imaging Techniques	75	25	75	100	05
MRT-411	Newer Developments in Advanced Imaging Technology and Biostatics	75	25	75	100	03
MRT-412	Nuclear Medicine Imaging Techniques	75	25	75	100	03
MRT-413	Seminars, Journal Club and Group Discussions/ Project Work				100	02
MRT-414	Seminar/ Journal Club/Residency-II				100	04
Total					600	22


Dean
 Faculty of Paramedical Sciences,
 UPUMS Salfal.