



Bachelor of Science (Honours) in Medical Radiology & Imaging Technology (BMRIT)

EFFECTIVE FROM

ACADEMIC SESSION: 2025 – 2026 ONWARDS

COURSE SCHEME

COURSE SCHEME

Effective from: Academic session, 2025 – 2026 onwards

SEMESTER - I																	
Teaching and Examination Scheme																	
Course Name: Bachelor in Medical Radiology and Imaging Technology (B. Sc. MRIT)																	
Semester: First				Duration: Three/ Four Year				Pattern: Full Time									
Level	Course Title	Course Code	Teaching Scheme				Examination Scheme										
			L	T	P	Credit (L+T+P)	Exam Duration (Hrs.)	Theory					Practical				
								CIE	Viva Voce	ESE	Total		CIE	ESE	Total		
								Max Marks	Max Marks	Max Marks	Max Marks	Min Marks	Max Marks	Max Marks	Max Marks	Max Marks	
Major Courses – Compulsory																	
	Human Anatomy	42BBMRIT 001	3	0	0	3	3	30	-	70	100	50	-	-	-	-	
	Physiology	42BBMRIT 002	3	0	0	3	3	30	-	70	100	50	-	-	-	-	
Minor Courses - Compulsory																	
	Basics of Radiation Physics	42BBMRIT 003	3	0	0	3	3	30	-	70	100	50	-	-	-	-	
	Basics of Radiation Physics Lab.	42BBMRIT 004	0	0	4	2	3	-	-	-	-	-	30	# 70	100	50	
	Introduction to Healthcare	42BBMRIT 005	1	0	0	1	2	30	20*	50	100	50	-	-	-	-	
Multidisciplinary Courses																	
	Medical Terminology and Record keeping	42BBMRIT 006	1	0	0	1	2	30	20*	50	100	50	-	-	-	-	
	Professionalism and Values	42BBMRIT 007	1	0	0	1	2	30	20*	50	100	50	-	-	-	-	
Ability Enhancement Course - Compulsory																	
	English & Communication Skills	42BBMRIT 008	1	0	0	1	2	30	20*	50	100	50	-	-	-	-	

Skill Enhancement Course															
Basic Computers and Information Sciences	42BBMRIT 009	1	0	0	1	2	30	20*	50	100	50	-	-	-	-
Common Value- Added Course															
BMRIT Radiology Clinical Education – I (Studentship)		0	0	15	5	3	-	-	-	-	-	60	40	100	50
TOTAL					21					800				200	
Student Contact Hours Per Week: 30 Hrs.(Theory and Practical period of 50 minutes each)															
Abbreviations: ESE- End Semester Exam, CIE- Continuous Internal Evaluation, L- Lecture (Hrs./week), T- Tutorial, P- Practical (Hrs./Week)															
*Internal Assessment, #External Assessment (70 Marks: 20 Marks for Practical Record Book, 20 Marks for Performance, 30 Marks for Viva Voce)															

SEMESTER - II																	
Teaching and Examination Scheme																	
Course Name: Bachelor in Medical Radiology and Imaging Technology (B. Sc. MRIT)																	
Semester: Second				Duration: Three/ Four Year				Pattern: Full Time									
Level	Course Title	Course Code	Teaching Scheme				Examination Scheme										
			L	T	P	Credit (L+T+P)	Exam Duration (Hrs.)	Theory					Practical				
								CIE	Viva Voce	ESE	Total		CIE	ESE	Total		
								Max Marks	Max Marks	Max Marks	Max Marks	Min Marks	Max Marks	Max Marks	Max Marks	Min Marks	
Major Courses – Compulsory																	
	Basics of Microbiology	42BBMRIT 010	2	0	0	2	3	30	-	70	100	50	-	-	-	-	
	Basics of Biochemistry	42BBMRIT 011	3	0	0	3	3	30	-	70	100	50	-	-	-	-	
Minor Courses - Compulsory																	
	Conventional Radiography & Equipment	42BBMRIT 012	3	0	0	3	3	30	-	70	100	50	-	-	-	-	
	Clinical Radiography Positioning - I	42BBMRIT 013	3	0	0	3	3	30	-	70	100	50	-	-	-	-	
5	Clinical Radiography Positioning Lab. - I	42BBMRIT 014	0	0	4	2	3	-	-	-	-	-	30	# 70	100	50	

Ability Enhancement Course - Compulsory															
Medical Law and Ethics	42BBMRIT 015	1	0	0	1	2	30	20*	50	100	50	-	-	-	-
Principal of Management	42BBMRIT 016	1	0	0	1	2	30	20*	50	100	50	-	-	-	-
Common Value- Added Course															
BMRIT Radiology Clinical Education – II (Studentship)		0	0	15	5	3	-	-	-	-	-	60	40	100	50
TOTAL					20					600				200	
Student Contact Hours Per Week: 30 Hrs.(Theory and Practical period of 50 minutes each)															
Abbreviations: ESE- End Semester Exam, CIE- Continuous Internal Evaluation, L- Lecture (Hrs./week), T- Tutorial, P- Practical (Hrs./Week)															
*Internal Assessment, #External Assessment (70 Marks: 20 Marks for Practical Record Book, 20 Marks for Performance, 30 Marks for Viva Voce)															

SEMESTER - III																	
Teaching and Examination Scheme																	
Course Name: Bachelor in Medical Radiology and Imaging Technology (B. Sc. MRIT)																	
Semester: Third				Duration: Three/ Four Year				Pattern: Full Time									
Level	Course Title	Course Code	Teaching Scheme				Examination Scheme										
			L	T	P	Credit (L+T+P)	Exam Duration (Hrs.)	Theory					Practical				
								CIE	Viva Voce	ESE	Total		CIE	ESE	Total		
								Max Marks	Max Marks	Max Marks	Max Marks	Min Marks	Max Marks	Max Marks	Max Marks	Min Marks	
Major Courses – Compulsory																	
	Radiography and Image Processing Techniques	42BBMRIT 017	2	0	0	2	3	30	-	70	100	50	-	-	-	-	
	Pathology	42BBMRIT 018	3	0	0	3	3	30	-	70	100	50	-	-	-	-	
Minor Courses - Compulsory																	
	Clinical Radiography Positioning - II	42BBMRIT 019	2	0	0	2	3	30	-	70	100	50	-	-	-	-	
6	Clinical Radiography Positioning Lab. - II	42BBMRIT 020	0	0	6	3	3	-	-	-	-	-	30	# 70	100	50	

Multidisciplinary Courses															
Contrast Media & Special Radiological procedures	42BBMRIT 021	2	0	0	2	3	30	-	70	100	50	-	-	-	-
Contrast Media & Special Radiological procedures Lab.	42BBMRIT 022	0	0	6	3	3	-	-	-	-	-	30	# 70	100	50
Ability Enhancement Course - Compulsory															
Environmental Sciences	42BBMRIT 023	1	0	0	1	2	30	20*	50	100	50	-	-	-	-
Common Value- Added Course															
BMRIT Radiology Clinical Education – III (Studentship)	.	0	0	12	5	3	-	-	-	-	-	60	40	100	50
TOTAL					21					500				300	

Student Contact Hours Per Week: **30 Hrs.(Theory and Practical period of 50 minutes each)**

Abbreviations: ESE- End Semester Exam, CIE- Continuous Internal Evaluation, L- Lecture (Hrs./week), T- Tutorial, P- Practical (Hrs./Week)

*Internal Assessment, #External Assessment (70 Marks: 20 Marks for Practical Record Book, 20 Marks for Performance, 30 Marks for Viva Voce)

SEMESTER - IV																	
Teaching and Examination Scheme																	
Course Name: Bachelor in Medical Radiology and Imaging Technology (B. Sc. MRIT)																	
Semester: Fourth																	
Duration: Three/ Four Year																	
Pattern: Full Time																	
Level	Course Title	Course Code	Teaching Scheme				Examination Scheme										
			L	T	P	Credit (L+T+P)	Exam Duration (Hrs.)	Theory					Practical				
								CIE	Viva Voce	ESE	Total		CIE	ESE	Total		
											Max Marks	Min Marks			Max Marks	Min Marks	
Major Courses – Compulsory																	
	Cross Sectional Anatomy	42BBMRIT 024	2	0	0	2	3	30	-	70	100	50	-	-	-	-	
	Cross Sectional Anatomy Lab.	42BBMRIT 025	0	0	4	2	3	-	-	-	-	-	30	# 70	100	50	
	Modern Radiological Imaging Equipment and Physics	42BBMRIT 026	2	0	0	2	3	30	-	70	100	50	-	-	-	-	

6	Modern Radiological Imaging Equipment and Physics Lab.	42BBMRIT 027	0	0	2	1	3	-	-	-	-	-	30	70	100	50	
	Minor Courses - Compulsory																
	Patient Care in Radiology	42BBMRIT 028	1	0	0	1	2	30	20*	50	100	50	-	-	-	-	
	Patient Care in Radiology Lab.	42BBMRIT 029	0	0	2	1	3	-	-	-	-	-	30	# 70	100	50	
	Multidisciplinary Courses																
	Interventional Radiology Techniques	42BBMRIT 030	2	0	0	2	3	30	-	70	100	50	-	-	-	-	
	Interventional Radiology Techniques Lab.	42BBMRIT 031	0	0	4	2	3	-	-	-	-	-	30	# 70	100	50	
	Common Value- Added Course																
	BMRIT Radiology Clinical Education – IV (Studentship)	.	0	0	12	5	3	-	-	-	-	-	60	40	100	50	
	Elective Course																
Open Elective	42BOE01	2	0	0	2	3	30	-	70	100	50	-	-	-	-		
TOTAL						20					500				500		

Student Contact Hours Per Week: **30 Hrs.(Theory and Practical period of 50 minutes each)**

Abbreviations: ESE- End Semester Exam, CIE- Continuous Internal Evaluation, L- Lecture (Hrs./week), T- Tutorial, P- Practical (Hrs./Week)

*Internal Assessment, #External Assessment (70 Marks: 20 Marks for Practical Record Book, 20 Marks for Performance, 30 Marks for Viva Voce)

SEMESTER - V

Teaching and Examination Scheme

Course Name: Bachelor in Medical Radiology and Imaging Technology (B. Sc. MRIT)

Semester: Fifth

Duration: Three/ Four Year

Pattern: Full Time

Level	Course Title	Course Code	Teaching Scheme				Examination Scheme								
			L	T	P	Credit (L+T+P)	Theory				Practical				
							Exam Duration (Hrs.)	CIE	ESE	Total		CIE	ESE	Total	
								Max Marks	Max Marks	Max Marks	Min Marks			Max Marks	Max Marks
Major Courses – Compulsory															
	Basics Techniques in CT Technology	42BBMRIT 032	4	1	0	5	3	30	70	100	50	-	-	-	-
	Basics Techniques in CT Technology Lab.	42BBMRIT 033	0	0	6	3	3	-	-	-	-	30	# 70	100	50
Minor Courses - Compulsory															
	Radiation Safety in Diagnostic Radiology	42BBMRIT 034	2	1	0	3	3	30	70	100	50	-	-	-	-
	Radiation Safety in Diagnostic Radiology Lab.	42BBMRIT 035	0	0	4	2	3	-	-	-	-	30	# 70	100	50
Multidisciplinary Courses															
6.5	Quality Assurance in Diagnostic Radiology and Regulatory Requirements	42BBMRIT 036	1	1	0	2	-	30	70	100	50	-	-	-	-
	Quality Assurance in Diagnostic Radiology and Regulatory Requirements Lab.	42BBMRIT 037	0	0	2	1	3	-	-	-	-	30	# 70	100	50
Common Value- Added Course															
	BMRIT Radiology Clinical Education – V (Studentship)	.	0	0	12	4	3	-	-	-	-	60	40	100	50
Elective Course															
	Open Elective	42BOE02	2	0	0	2	3	30	70	100	50	-	-	-	-
TOTAL						22				400				400	

Student Contact Hours Per Week: **30 Hrs.(Theory and Practical period of 50 minutes each)**

Abbreviations: ESE- End Semester Exam, CIE- Continuous Internal Evaluation, L- Lecture (Hrs./week), T- Tutorial, P- Practical (Hrs./Week)

*Internal Assessment, #External Assessment (70 Marks: 20 Marks for Practical Record Book, 20 Marks for Performance, 30 Marks for Viva Voce)

SEMESTER - VI															
Teaching and Examination Scheme															
Course Name: Bachelor in Medical Radiology and Imaging Technology (B. Sc. MRIT)															
Semester: Sixth					Duration: Three Year					Pattern: Full Time					
Level	Course Title	Course Code	Teaching Scheme				Examination Scheme								
			L	T	P	Credit (L+T+P)	Exam Duration (Hrs.)	Theory				Practical			
								CIE	ESE	Total		CIE	ESE	Total	
								Max Marks	Max Marks	Max Marks	Min Marks	Max Marks	Max Marks	Max Marks	Min Marks
Major Courses – Compulsory															
6.5	Internship/ Clinical Posting/ Clinical Logbook & Case Documentation	42BBMRIT 038	0	0	0	15	0	0	0	0	0	100	100	200	100
	Minor Courses - Compulsory														
	Project work/ Viva Voce/ Seminar	42BBMRIT 039	0	0	0	6	0	0	0	0	0	100	100	200	100
TOTAL					21									400	

* **Note:** Students who wish to avail the Exit option must indicate this on the Re-Registration form at the beginning of the 5th Semester. Any requests made after this point will not be considered.

SEMESTER - VI															
Teaching and Examination Scheme															
Course Name: Bachelor in Medical Radiology and Imaging Technology (B. Sc. MRIT)															
Semester: Sixth					Duration: Four Year					Pattern: Full Time					
Level	Course Title	Course Code	Teaching Scheme				Examination Scheme								
			L	T	P	Credit (L+T+P)	Exam Duration (Hrs.)	Theory				Practical			
								CIE	ESE	Total		CIE	ESE	Total	
								Max Marks	Max Marks	Max Marks	Min Marks	Max Marks	Max Marks	Max Marks	Min Marks
Major Courses – Compulsory															
	Basics Techniques in MRI Technology	42BBMRIT 040	3	1	0	4	3	30	70	100	50	-	-	-	-
	Basics Techniques in MRI Technology Lab.	42BBMRIT 041	0	0	8	4	3	-	-	-	-	30	# 70	100	50

SEMESTER - VIII

Teaching and Examination Scheme

Course Name: Bachelor in Medical Radiology and Imaging Technology (B. Sc. MRIT)

Semester: Eighth

Duration: Four Year

Pattern: Full Time

Level	Course Title	Course Code	Teaching Scheme				Examination Scheme								
			L	T	P	Credit (L+T+P)	Exam Duration (Hrs.)	Theory				Practical			
								CIE	ESE	Total		CIE	ESE	Total	
								Max Marks	Max Marks	Max Marks	Min Marks	Max Marks	Max Marks	Max Marks	Min Marks
Major Courses – Compulsory															
7	Internship	42BBMRIT 047	0	0	0	14	0	0	0	0	0	100	100	200	100
	Minor Courses - Compulsory														
	Internship Evaluation & Report	42BBMRIT 048	0	0	0	6	0	0	0	0	0	100	100	200	100
TOTAL					20									400	

SEMESTER – VII & VIII

Teaching and Examination Scheme

Course Name: Bachelor in Medical Radiology and Imaging Technology

Duration of Program: Four Years (8 Semesters)

Pattern: Full Time Rotatory Internship

Semester: Seventh & Eighth (4th year)

Internship: minimum 1200 hours (calculated based on 08 hours per day for one year of internship)

Students must undertake the rotational posting during which students have to work under supervision of an experienced staff in the following areas:

Postings

- | Postings | Duration |
|---|----------|
| 1. Conventional Radiography, Mammography, CR, DR and PACS - | 4 months |
| 2. Radiological Imaging & Special procedures and Advanced Equipment - | 2 months |
| 3. Ultrasonography & Doppler Imaging - | 1 month |
| 4. Interventional Radiology - | 1 month |
| 5. Computed Tomography - | 2 months |
| 6. Magnetic Resonance Imaging - | 2 months |

LIST OF PRACTICALS/ EXERCISES/ ASSIGNMENTS/ CASE STUDIES

Exp. No.	Name of Practical/ Exercise/ Assignment/ Case Study
Seventh Semester	
1	Radiation Physics
2	Radiographic Positioning
3	Conventional Radiography and Equipment
4	Contrast Media & Special Radiological/ imaging procedures
5	Interventional Radiology/ imaging techniques
6	Patient Care in Radiology
Eighth Semester	
7	Basics Techniques in CT Imaging Technology
8	Radiation Safety in Diagnostic Radiology
9	Quality Assurance in Diagnostic Radiology and Regulatory Requirements
10	Basics Techniques in MRI Imaging Technology
11	Introduction to Nuclear Medicine Techniques*(if facility available)
12	Ultrasound Techniques