

**Baddi University
of Emerging Sciences & Technology,
Baddi, Solan, HP**

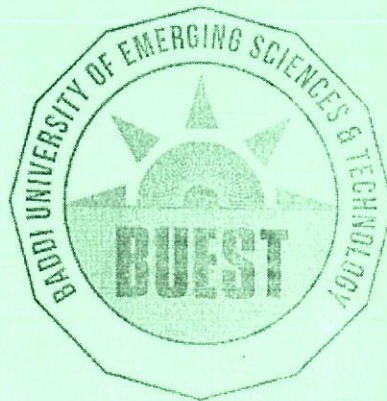
SCHOOL OF MEDICAL SCIENCES

**DEPARTMENT OF
RADIOLOGY & IMAGING TECHNOLOGY**

**B.Sc. in Medical Radiology & Imaging Technology
(MRIT)**

Ordinance

2024



**W.E.F THE ACADEMIC
YEAR 2024-25**

HOD
School of Physiotherapy
Baddi University
of Emerging Sciences & Technology
[Signature]

CURRICULUM

B.Sc. in Medical Radiology & Imaging Technology (MRIT)

3.5 YEARS PROGRAM

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1. General provisions

1.1 Title and Commencement

This document shall be officially titled the "Course Ordinance for the Bachelor of Science in Medical Radiology and Imaging Technology" and may be cited hereafter as the **BMRIT Ordinance**. It shall be effective from the Academic Session 2024-25.

1.2 Definitions

For the purposes of clarity within this ordinance, the following terms are defined:

1. **BMRIT or B.Sc. MRIT:** Refers to the Bachelor of Science in Medical Radiology and Imaging Technology program, an academic curriculum dedicated to the education and professional training of Medical Imaging Technologists.
2. **Institution:** Denotes the accredited academic institution responsible for the administration and oversight of the BMRIT Program.
3. **Medical Imaging Technologists:** Refers to graduates of the BMRIT Program who possess specialized qualifications to conduct diagnostic imaging and radiologic procedures as essential members of the healthcare profession.

1.3 Purpose of the document

The purpose of this ordinance is to outline the comprehensive academic, operational, and ethical framework for the BMRIT Program. It aims to:

1. Define the standards and requirements for admission, academic progression, clinical training, and graduation within the BMRIT Program.
2. Ensure that the curriculum reflects a rigorous commitment to academic and clinical excellence, equipping students with the critical knowledge, skills, and ethical standards necessary for their roles as Medical Imaging Technologists.
3. Facilitate a program structure that keeps pace with advancements in medical imaging technologies and diagnostic practices, ensuring relevance and quality in healthcare education.

1.4 Applicability

This ordinance is binding upon all individuals enrolled in the BMRIT Program, as well as faculty, staff, and any administrative bodies involved in its governance, instruction, or support. It also applies to all institutional activities and affiliated clinical placements that contribute to the academic and practical training components of the program.

1.5 Authority

The BMRIT Program shall be governed by the established governance of the **Baddi University** (hereinafter "the University"), which shall hold the authority to implement, interpret, and amend this ordinance as deemed necessary. The Council may seek input from program faculty, students, and partnered clinical institutions to support informed decision-making regarding the program's quality and regulatory compliance. Amendments to the ordinance shall be reviewed and ratified by the Council before taking effect.

1.6 Amendments

This ordinance shall undergo periodic review to maintain alignment with evolving industry standards, educational methodologies, and technological advancements in radiology and imaging sciences. Any amendments to this ordinance may be proposed by the Council, program faculty, or other authorized entities within the institution. Proposed amendments shall be communicated to all relevant stakeholders and shall take effect as outlined in the ratification notice by the Council.

1.7 Other Provisions

- a) Nothing contained in this Ordinance shall preclude the University from amending its provisions. Any such amendments, upon approval by the Academic Council and the Governing Body, shall be binding on all students, irrespective of their date of admission or the regulations under which they were initially enrolled. Unless otherwise specified, amendments shall take effect from the date of their official notification.
- b) Any matter not expressly addressed within this Ordinance shall be governed by the rules, regulations, and policies framed by the University, as may be amended or enacted from time to time. All such rules and regulations shall be deemed integral to this Ordinance and shall be enforceable upon their formal notification through recognized communication channels, including the official University website.
- c) In circumstances arising from events beyond the reasonable control of the University, including but not limited to natural disasters, acts of God, or other force majeure events, the provisions of this Ordinance may be modified, deferred, or temporarily suspended as deemed appropriate by the University
- d) Students aggrieved by any decision or action arising under the provisions of this Ordinance may submit a formal appeal to the designated grievance redressal committee. The decision of the committee, after due consideration and review, shall be final, conclusive, and binding on all parties concerned.
- e) All disputes, claims, or controversies arising out of or relating to the provisions of this Ordinance shall fall exclusively within the jurisdiction of the courts located at Nalagarh.

2. Introduction

2.1 Background

The **Bachelor of Science in Medical Radiology and Imaging Technology** is an academic program that focuses on developing the skills and expertise essential for a career in medical imaging. This field, a fundamental part of modern healthcare, involves the use of advanced imaging technologies to assist in diagnosing, monitoring, and treating diseases and injuries. Radiology has expanded considerably from its foundational use of simple X-ray techniques to now encompass a wide range of imaging modalities, including digital and conventional X-rays, computed tomography (CT), magnetic resonance imaging (MRI), ultrasound, and nuclear medicine. Together, these advancements have transformed the field, making it both dynamic and highly specialized.

Medical Imaging Technologists, often referred to as radiographers or diagnostic radiographers, play a critical role within the healthcare system. Their work involves producing high-quality diagnostic images that are essential for accurate medical assessments and treatment planning. Through specialized knowledge of radiologic equipment and patient positioning, these professionals are capable of imaging different parts of the human body with precision and safety, ensuring minimal radiation exposure while maintaining diagnostic accuracy. They collaborate closely with radiologists and other healthcare providers, supporting the comprehensive evaluation of patient health, particularly in complex cases that require detailed imaging for a definitive diagnosis.

Radiologic techniques in this discipline range from the more common modalities, such as X-ray and CT, to highly specialized imaging approaches, including MRI, nuclear medicine, mammography, and angiography. Each modality serves a unique purpose: CT, for instance, provides detailed cross-sectional images ideal for assessing trauma and complex medical conditions; MRI offers exceptional clarity in soft tissue imaging, vital for neurological and musculoskeletal evaluations; and nuclear medicine enables the functional imaging of organs, providing insights beyond structural analysis. Angiography allows visualization of blood vessels, aiding in the detection of vascular abnormalities and guiding interventional procedures.

The increasing reliance on imaging in clinical medicine has significantly raised the demand for highly skilled radiology professionals who not only understand the technical aspects of imaging but also demonstrate proficiency in patient care. As technology continues to advance, the field of Radiology and Imaging Technology remains at the forefront of clinical innovation, with expanding applications in both diagnostic and

therapeutic practices. The need for well-trained imaging technologists has grown in parallel, as they are entrusted with managing complex imaging equipment and conducting procedures that require a high degree of technical precision.

This program provides students with both theoretical foundations and practical training, preparing them for diverse roles within healthcare settings, from diagnostic imaging to interventional radiology. Graduates emerge as competent professionals capable of performing a broad range of imaging procedures, integrating patient care skills with a sound understanding of radiation safety, anatomy, physiology, and pathology. With a deep commitment to accuracy and patient welfare, they uphold the standards of medical imaging, making invaluable contributions to medical science and patient outcomes.

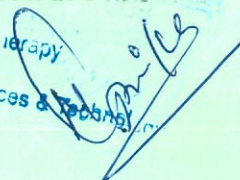
2.2 Program Objectives

Program Educational Objectives: At the end of the Program, the student will be able to:	
PEO1	Understand the fundamentals and applications of Radiological Equipments such as MRI Machine, CT Scan Machine, X-ray Machine etc
PEO2	Perform various Radiological procedures which are necessary for diagnostic purposes
PEO3	Develop technical knowledge of Radiology so that he/she will be able to assist a Radiologist in every aspect of Radiological Imaging.
PEO4	Pursue a career in Hospital as well as go for further education & research in Radiology & Imaging.

2.3 Program Outcomes

Program Outcomes: At the end of the Program, the student will be able to: -	
PO1	Engage in lifelong learning and adapt to changing professional and societal needs
PO2	The Candidates can join Private, Military and public health services
PO3	In industry, Medical Imaging technologists are needed for Application and Software development for Medical Imaging equipment
PO4	Those who choose this stream are going to study about Radiological & Imaging Technology such as MRI, CT scan, USG etc.
PO5	Ability to do various Radiological procedures which are necessary for diagnostic purposes
PO6	Understanding of fundamentals and applications of Radiological Equipments such as MRI Machine, CT Scan Machine, X-ray Machine etc.
PO7	To explore the foundation science and safety principles in Medical Imaging Technology
PO8	Enhance knowledge from clinical experience, interactions & discussions and research to improve the quality of training and education in Medical Imaging.
PO9	Explore the subject in depth and develop high degree of expertise to contribute to advancement of knowledge in Medical Imaging.
PO10	Develop technical and presentation skills necessary to become efficient technologists utilizing state-of-the art facilities and equipments.
PO11	To provide with the skills and knowledge to apply for critical appraisal of day to day practice
PO12	Students will be competent to work in Hospital Radiology Suites, MRI Units and other related sections.
PO13	Students will be skilled in problem solving, critical thinking and will be able to assist the Radiologist in various procedures.
PO14	This course provides medical imaging technologists with an understanding of the physical principles as well as theories involved in diagnostic imaging modalities
PO15	Students will be able to have all the relevant knowledge of Radiology & Imaging Sciences and will be able to do various procedures required.
PO16	Students will be able to integrate knowledge of various types of Radiological & Imaging procedures along with their in-depth knowledge.

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2.4 Program Specific Outcomes

Program Specific Outcomes: At the end of the Program, the student will be able to: -	
PSO1	Competent to work in Hospital Radiology Suites, MRI Units and other related sections.
PSO2	Develop an understanding of the physical principles as well as theories involved in diagnostic imaging modalities
PSO3	This Program will create a great source of manpower which can aid in our health sector especially in MRI, CT scan, X-ray & Ultrasonography sections.
PSO4	To explore the foundation science and safety principles in Medical Imaging Technology.

3. Regulation & syllabus

**Baddi University of Emerging Sciences and Technology,
Baddi, Solan, HP.**

Ordinance

B.Sc. Medical Radiology and Imaging Technology (MRIT)

3.1 Nomenclature

The degree conferred upon successful completion of the program is titled **B.Sc. in Medical Radiology & Imaging Technology (MRIT)**.

3.2 Duration of the course

The BMRIT Degree course shall have a duration of 3.5 years, including a compulsory six-month internship. Each academic year shall be divided into two semesters, namely Semester I, Semester II and so on, resulting in a total of six semesters over the three years.

3.2.1 Maximum duration

A student must complete the course within a maximum period of five years from the date of admission to the First Semester. Failure to do so shall result in disqualification from the course, rendering the student ineligible to continue.

3.3 Eligibility Criteria

The eligibility to the **Bachelor of Science in Medical Radiology & Imaging Technology** program will be governed by the following criteria

1. The candidate must have successfully passed the **Higher Secondary (10+2)** or an equivalent examination recognized by any Indian University or a duly constituted Board, with a minimum passing grade in **Physics, Chemistry, and Biology**.
2. Alternatively, candidates may be eligible if they have completed a Diploma in Medical Radiology and Imaging Technology after completing 12th class (10+2) or its equivalent from CBSE or another recognized board, with a minimum aggregate of 50% marks in Physics, Chemistry, and Biology, provided the candidate has passed each subject separately.
3. Candidates who have studied abroad and possess an equivalent qualification, as determined by the **Association of Indian Universities**, must have completed the equivalent of the 12th standard examination with Physics, Chemistry, Biology, and English as core subjects.
4. Candidates who have passed the Senior Secondary School Examination from the National Open School, with a minimum of five subjects, must include any of the following combinations of subjects:
 - English, Physics, Chemistry, Botany, and Zoology.
 - English, Physics, Chemistry, Biology, and any other language.
5. The candidate must have attained the age of **17 years** as of the year of admission, with a maximum age limit of **30 years**.

3.4 Admission Process

Admission to the **B.Sc. Medical Radiology and Imaging Technology** course shall be made as the established norms of the Baddi University.

3.4.1 Change of branch

A student will be entitled to change/switch over Branch/Discipline within 15 days after the commencement of Academic Session where after no change will be allowed. Such a student must be eligible for admission to the Branch/Discipline intended to be admitted to.

3.4.2 Absence from Classes:

The name of any student(s) who remain(s) absent from classes for more than 15 consecutive days after joining the course will be struck off from the college rolls without notice.

3.5 Medium of instruction

The medium of instruction for all subjects of study and for examinations in the course shall be English.

4. Examinations

4.1 Examination Structure

The examinations for the BMRIT course will be conducted in accordance with the "Examination Regulations for Regular Programmes of BUEST" set by Baddi University..

4.2 Type of Examinations

Wherever not otherwise provided in any Course Ordinance there will be two types of Examinations.

- (a) **End term:** End term Examination shall be held at the end of each Semester and will cover the entire syllabus for that Semester.
- (b) **Internal Test:** There will be three Internal Assessment test(s) in each Semester. Each Internal Assessment test will cover the syllabus mentioned in the section 4.6. The best of two out of three will be considered.

4.3 Last date of forms

The last dates for receipt of examination form and late fee will be charged under the established University norms.

4.4 Duration of examination

The duration of the end term examination shall be 3 hours and the MST's will be 1 ½ hours.

4.5 Eligibility to appear in examination

The Student should fulfill the following, criteria to be eligible for appearing in the end term examination;

- i) He/she should bear a good moral character.
- ii) He/she should be on the rolls of the University during the Semester.
- iii) He/she should have not less than 75% of the attendance during the respective Semester. In case, a student fails to secure the prescribed percentage of lectures either in Theory or Practical, he/she shall be detained from appearing in the said part of examination (Theory or practical or both, as the case may be).

- iv) He/she should not be a defaulter of payment of tuition fee or any other dues of the University and no disciplinary action should be pending against the him/her.

Note: *In case, a student fails to secure 75% attendance in Theory or Practical or both, he/she will be detained from appearing in Theory or Practical or both examinations, as the cases may be.*

4.5.1 Exemption from Attendance/Condonation of Shortage of Attendance

Any exemption from attendance will be given as per the norms set by the University.

4.6 Paper Setting

4.6.1 1st MST

Course coverage for the First-MST will be 40% of course syllabus.

4.6.2 2nd MST

Course coverage for the Second-MST will be 80% of course syllabus

4.6.3 3rd MST

Course coverage for the Third-MST will be 100% of course syllabus

4.6.4 End-Semester

Course coverage for End-Semester examination will be 100% of course syllabus

4.6.5 Mid-term paper sample



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Mid-Term Test-II

Programme:
Course Code:
Max. Marks: 50
Questions: 4

Branch:
Course Title:
Time duration: 1 ½ Hours

Session: 2024-25
Semester:
Total number of

Note: Attempt all questions.

Sr. No.	Question	Marks
1		10
2		10
3		10
4	<u>Short-Answer Type Questions</u>	(2x1)
(i)		
(ii)		
(iii)		
(iv)		
(v)		
(vi)		
(vii)		
(viii)		
(ix)		
(x)		

4.6.6 Final-term paper sample



Baddi University

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End-Term Examination (December 2023)

Programme: _____ Branch: _____ Session: 2023-2024
 Semester: _____ Course Code: _____ Course Title: _____
 Max. Marks: 100 Time duration: 3 Hours Total Number of Questions: 9

Note: Attempt five questions in all, selecting one question each from the sections A, B, C and D. Section E is compulsory.

Sr. No.	Question	Marks
	<u>Section-A</u>	
1		20
2		20
	<u>Section-B</u>	
3		20
4		20
	<u>Section-C</u>	
5		20
6		20
	<u>Section-D</u>	
7		20
8		20
9	<u>Section-E</u> (Short answer type questions - Attempt all sub-parts at one place)	
(i)		
(ii)		
(iii)		
(iv)		
(v)		
(vi)		
(vii)		
(viii)		
(ix)		
(x)		
		(2x10)

4.7 Scheme of Examination

Curriculum Outline

4.7.1 1ST Semester

Course Code	Course Type	Course Title	Load Allocations			Total Marks	Credits
			L*	T*	P		
BMRIT101	Core Theory	Human Anatomy & Physiology-I	3	1	0	100	4
BMRIT102	Core Practical/ Laboratory	Human Anatomy & Physiology Practical	0	0	4	100	2
BMRIT103	Core Theory	Conventional Radiography and Equipment	3	1	0	100	4
BMRIT104	Core Practical/ Laboratory	Conventional Radiography and Equipment Practical	0	0	4	100	2
BMRIT105	Core Theory	Radiation Physics	3	1	0	100	4
BMRIT106	Core Practical/ Laboratory	Radiation Physics- Practical	0	0	4	100	2
BMRIT107	Ability Enhancement Compulsory Course-(AECC)	English & Communication	1	0	0	100	1
BMRIT108	Ability Enhancement Compulsory Course-(AECC)	English & Communication (Lab/ Seminars)	0	0	2	50	1
BMRIT109	Ability Enhancement Compulsory Course-(AECC)	Human Values, De-addiction & Traffic Rules	3	0	0	100	3
BMRIT110	Skill Enhancement course	First Aid	0	0	2	50	1
		TOTAL	13	03	16	900	24

4.7.2 2nd Semester

Course Code	Course Type	Course Title	Load Allocations			Total Marks	Credits
			L*	T*	P		
BMRIT201	Core Theory	Human Anatomy & Physiology - II	3	1	0	100	4
BMRIT202	Core Practical/ Laboratory	Human Anatomy & Physiology - II Practical	0	0	4	100	2
BMRIT203	Core Theory	Radiation Safety & Protection AERB Guidelines	3	1	0	100	4
BMRIT204	Core Practical/ Laboratory	Radiation Safety & Protection AERB Guidelines Practical	0	0	4	100	2
BMRIT205	Core Theory	Fundamentals of Medical Imaging Modalities	3	1	0	100	4
BMRIT206	Core Practical/ Laboratory	Fundamentals of Medical Imaging Modalities Practical	0	0	4	100	2
BMRIT207	Core Theory	Clinical Radiography Positioning - I	3	1	0	100	4
BMRIT208	Core Practical/ Laboratory	Clinical Radiography Positioning - I Practical	0	0	4	100	2
		TOTAL	12	4	16	800	24

4.7.3 3rd Semester

Course Code	Course Type	Course Title	Load Allocations			Total Marks	Credits
			L*	T*	P		
BMRIT301	Core Theory	Contrast and Special Radiographic Procedures	3	1	0	100	4
BMRIT302	Core Practical/ Laboratory	Contrast and Special Radiographic Procedures Practical	0	0	4	100	2
BMRIT303	Core Theory	Equipment of Modern Imaging Technology	3	1	0	100	4
BMRIT304	Core Practical/ Laboratory	Equipment of Modern Imaging Technology Practical	0	0	4	100	2
BMRIT305	Core Theory	Clinical Radiography Positioning - II	3	1	0	100	4
BMRIT306	Core Practical/ Laboratory	Clinical Radiography Positioning – II Practical	0	0	4	100	2
BMRIT307	Ability Enhancement Compulsory Course- (AECC)	Introduction to Quality & Patient Safety	2	0	0	100	2
BMRIT308	Core Theory / Minor	Medical Law and Ethics	3	0	0	100	3
BMRIT309	Ability Enhancement Compulsory Course- (AECC)	Mentoring & Professional Development	0	0	2	50	1
		TOTAL	14	3	14	850	24

4.7.4 4th Semester

Course Code	Course Type	Course Title	Load Allocations			Total Marks	Credits
			L*	T*	P		
BMRIT401	Core Theory	Basics of USG and Mammography	3	1	0	100	4
BMRIT402	Core Practical/ Laboratory	Basics of USG and Mammography Practical	0	0	4	100	2
BMRIT403	Core Theory	Cross Sectional Anatomy & Physiology	3	1	0	100	4
BMRIT404	Core Practical/ Laboratory	Cross Sectional Anatomy & Physiology Lab	0	0	4	100	2
BMRIT405	Core Theory	Physics of Newer Imaging Modalities	3	1	0	100	4
BMRIT406	Core Practical/ Laboratory	Physics of Newer Imaging Modalities Practical	0	0	4	100	2
BMRIT407	Core Theory	Basics of Advanced Imaging Technology	3	1	0	100	4
BMRIT408	Ability Enhancement Compulsory Course- (AECC)	Basic in Computers and Information Science Practical	0	0	2	100	1
BMRIT409	Ability Enhancement Compulsory Course- (AECC)	Environmental Studies	1	0	0	100	1
		TOTAL	13	4	14	900	24

4.7.5 5TH Semester

Course Code	Course Type	Course Title	Load Allocation s			Total Marks	Credits
			L*	T*	P		
BMRIT501	Core Theory	Advance Techniques and Instrumentation of MRI	3	1	0	100	4
BMRIT502	Core Practical/ Laboratory	Advance Techniques and Instrumentation of MRI Practical	0	0	4	100	2
BMRIT503	Core Theory	Nuclear Medicine Technology	3	1	0	100	4
BMRIT504	Core Practical/ Laboratory	Nuclear Medicine Technology Practical	0	0	4	100	2
BMRIT505	Core Theory	Interventional Procedure and Technique	3	1	0	100	4
BMRIT506	Core Practical/ Laboratory	Interventional Procedure and Technique Practical	0	0	4	100	2
BMRIT507	Core Theory	Quality Control in Radiology	3	1	0	100	4
BMRIT001	Core Practical/ Laboratory	Practical Clinical Posting - I	0	0	4	100	2
		TOTAL	12	04	16	800	24

4.7.6 6th Semester

Course Code	Course Type	Course Title	Load Allocations			Total Marks	Credits
			L*	T*	P		
BMRIT601	Core Theory	Research Methodology and Biostatistics	3	1	0	100	4
BMRIT602	Core Theory	Orientation in Clinical Sciences	3	1	0	100	4
BMRIT603	Core Theory	Radiological Advanced Imaging Modalities	3	1	0	100	4
BMRIT604	Core Practical/ Laboratory	Radiological Advanced Imaging Modalities Practical	0	0	4	100	2
BMRIT605	Core Theory	Hospital Management & Care of Patient	3	1	0	100	4
BMRIT606	Core Practical/ Laboratory	Practical-Seminars, Journal Clubs and Procedures	0	0	4	100	2
BMRIT002	Core Practical/ Laboratory	Practical Clinical Posting – II	0	0	4	100	2
BMRIT608	Skill Enhancement	Generic Skills and Entrepreneurship	2	0	0	100	2
		TOTAL	14	04	12	800	24

4.7.7 Internship

Sno.	Course Title	Theory	Practical	Total	Weekly Hours
1	Insternship	-	720	720	
				720	

5. Evaluation

5.1 Evaluation

5.1.1 Theory Evaluation

The theory evaluation consists of various components that assess the student's understanding and performance throughout the course. The following table outlines the evaluation criteria and their respective weightage:

Sr. No.	Evaluation Criteria	Weightage in Marks	Remarks
1	Mid Term / Sessional Tests	25	Internal Evaluation. This includes Mid-Semester Tests (MSTs) of 25 marks (3 in no. best of the two will be considered), 20 marks for quizzes/assignments (6 in no. of which best of 4 will be considered), and 5 marks for attendance (as per 5.1.2). The average of two mid-semester tests will be considered for evaluation.
2	Attendance	5	
3	Assignments / Quizzes	20	
4	End Semester Examination	50	External Evaluation. A comprehensive examination at the end of the semester to test overall knowledge.
Total		100	Marks may be rounded off to the nearest integer.

5.1.2 Guidelines for the allotment of marks for attendance (Theory)

The following attendance criteria will be followed for the marks distribution in internal examinations.

Attendance	Marks distribution
95-100 %	5
90-95%	4
85-90%	3
80-85%	2
75-80%	1
70-75%	0

5.1.3 Practical Evaluation

The practical evaluation assesses students' hands-on skills and their ability to apply theoretical knowledge in clinical and laboratory settings. The following table outlines the evaluation criteria for practical assessments:

Sr. No.	Evaluation Criteria	Weightage in Marks	Remarks
1	Evaluation of Practical Record / Viva Voce / Attendance / Seminar / Presentation	60	Internal Evaluation. This involves practical records, viva voce (oral exams), attendance, seminars, and presentations. • Quiz 10 marks, • Viva 20 marks, • Equipment Demonstration/ Presentation 10 marks • Written exam 10 marks • Attendance 10 marks
2	Final Practical Performance + Viva Voce	40	External Evaluation. Students are assessed based on their performance in the final practical exam and viva voce. • Practical file 20 marks, • Viva voce 20 marks.
Total		100	Marks may be rounded off to the nearest integer.

Practical Record / Viva Voce / Attendance: This component evaluates how well students document and explain their practical work (through practical records), their participation in practical sessions, and the ability to communicate their findings during viva voce or presentations.

Final Practical Performance: The external evaluation focuses on the student's overall practical performance, which is assessed during the final practical exam along with a viva voce (oral exam).

5.1.4 Guidelines for the allotment of marks for attendance (Practical)

The following attendance criteria will be followed for the marks distribution in internal examinations for practical.

Marks Percentage	Marks
98-100%	10
95-97.4%	9
92.5-94.9%	8
90-92.4%	7
87.5-89.9%	6
85-87.4%	5
82.5-84.9%	4
80-82.4%	3
77.5-79.9%	2
75-77.4%	1
0-74.9%	0

5.2 Minimum passing criteria

A student shall be declared Pass and eligible for getting grade in a subject of BMRIIT if he/she secures at least 50% marks in that particular subject. This criteria is applicable on both theory & practical course independently.

5.3 Classification of Grades

Grades for each subject will be awarded based on the marks obtained by the student as per the following criteria.

Marks	Grade Point	Letter Grade	Performance
$\geq 85\%$	10	A+	Excellent
$\geq 80\% \text{ \& } < 85\%$	9	A	Very Good
$\geq 70\% \text{ \& } < 80\%$	8	B+	Good
$\geq 55\% \text{ \& } < 70\%$	7	B	Fair
$\geq 50\% \text{ \& } < 55\%$	6	C	Average
< 50	00	E	Exposed
Short Attendance	00	F	Fail

5.3.1 Pass and Fail Grades

- a) Grades A+, A, B+, B, and C are considered pass grades, while grades E and F are considered fail grades. Any course(s) in which a student earns an “E” or “F” grade will be categorized as a ‘Backlog’ course(s).
- b) An “E” grade is awarded when a student has attended at least 75% of the Lectures, Tutorials, and Practicals (as per the prescribed teaching load for the course) but fails to meet the evaluation requirements.
- c) An “F” grade is assigned in cases of detention due to a shortage of attendance or as a penalty for using unfair means. A student receiving an “F” grade in any course must re-register for that course when it is offered again.

5.4 Result declaration

- a) Result declaration criteria will be followed according to the Baddi University norms which may include (Division/Degree).
- b) The grace marks, if applicable, will be awarded in accordance with the guidelines set by the University.

6. Internship

6.1 Internship Requirement

Candidates who have successfully passed all subjects in the 6th semester examination shall undergo a mandatory six-month internship.

6.2 Internship Duration and Attendance:

- a) The internship shall require candidates to work full-time, averaging 7 hours per day on each working day for six months.
- b) Candidates are permitted a maximum of three (3) holidays during the internship period.
- c) Absences exceeding six (6) days, for any reason, shall require candidates to compensate by working additional days equal to the period of absence.

6.3 Scope of Training:

- The internship shall comprehensively cover all services provided by the Radio-diagnosis department of the respective medical college or hospital.

6.4 Certification and Eligibility for Degree:

- a) Upon satisfactory attendance and performance during the internship, the Director/Principal/Head of the institution or department shall issue a *Certificate of Satisfactory Completion* of training.
- b) This certification is a prerequisite for the University to award the *Bachelor in Medical Radiologic & Imaging Technology* degree or to declare the candidate eligible for the same.
- c) No candidate shall be eligible for the degree without the successful completion of the six-month internship.

6.5 Infrastructure Requirements for Internship:

- a) The institution must ensure that the Radio-diagnosis department where the internship is conducted has adequate and modern infrastructure facilities.
- b) It is mandatory for the institution to have its own well-equipped and modern Radio-diagnosis department managed by a senior radiologist.

6.6 Internship at External Institutes:

- a) The Director/HOD of the institution may, at their discretion, issue a *No Objection Certificate (NOC)* allowing candidates to complete their internship at an external institute, provided that the external institute meets the above infrastructure requirements.
- b) For obtaining the NOC, the candidate must submit documentation verifying the status of radiological imaging services available at the proposed external institute.

6.7 Working Hours

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

6.7.1 Postings Duration

- a) The total duration of the internship is of 720 hours.
- b) During the internship candidate shall have to work full time average 7 hours per day (each working day) for six months.
- c) Each candidate is allowed maximum of 3 holidays during entire Internship Program and in case of any exigencies during which the candidate remains absent for a period more than 6 days, he/she will have to work for the extra days during which the candidate has remained absent.

SN.1	MODALITY	DURATION
1	CR, DR & PACS	1 MONTH
2	PET/SPECT (If facility is not available the time can be allotted for S.no. 1)	1 MONTH
3	Ultrasonography	1 MONTH
4	Doppler Imaging	1 MONTH
5	Computed Tomography	1 MONTH
6	MRI	1 MONTH

6.7.2 Evaluation criteria for internship (departmental level)

S.no	Title	Marks distribution
1	Attendance	20%
2	UG Research project/Viva/ Presentation	50%
3	Log book	30%

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