



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

EFFECTIVE FROM

ACADEMIC SESSION: 2025 – 2026 ONWARDS

SYLLABUS MANUAL

VISION OF THE UNIVERSITY

The vision of the **Bachelor in Medical Radiology and Imaging Technology (BMRIT)** program is to emerge as a center of excellence in radiological education and clinical training by producing skilled, ethical, and compassionate imaging technologists. It aspires to equip graduates with advanced knowledge of diagnostic imaging techniques, professional competence, and a strong sense of patient-centered care. The program aims to align with the goals of the university and national health policies by fostering academic rigor, technological innovation, and lifelong learning. Through this vision, the BRIT program seeks to contribute meaningfully to the healthcare system by preparing radiology professionals who are adaptable, research-oriented, and capable of meeting global healthcare standards.

MISSION OF THE UNIVERSITY

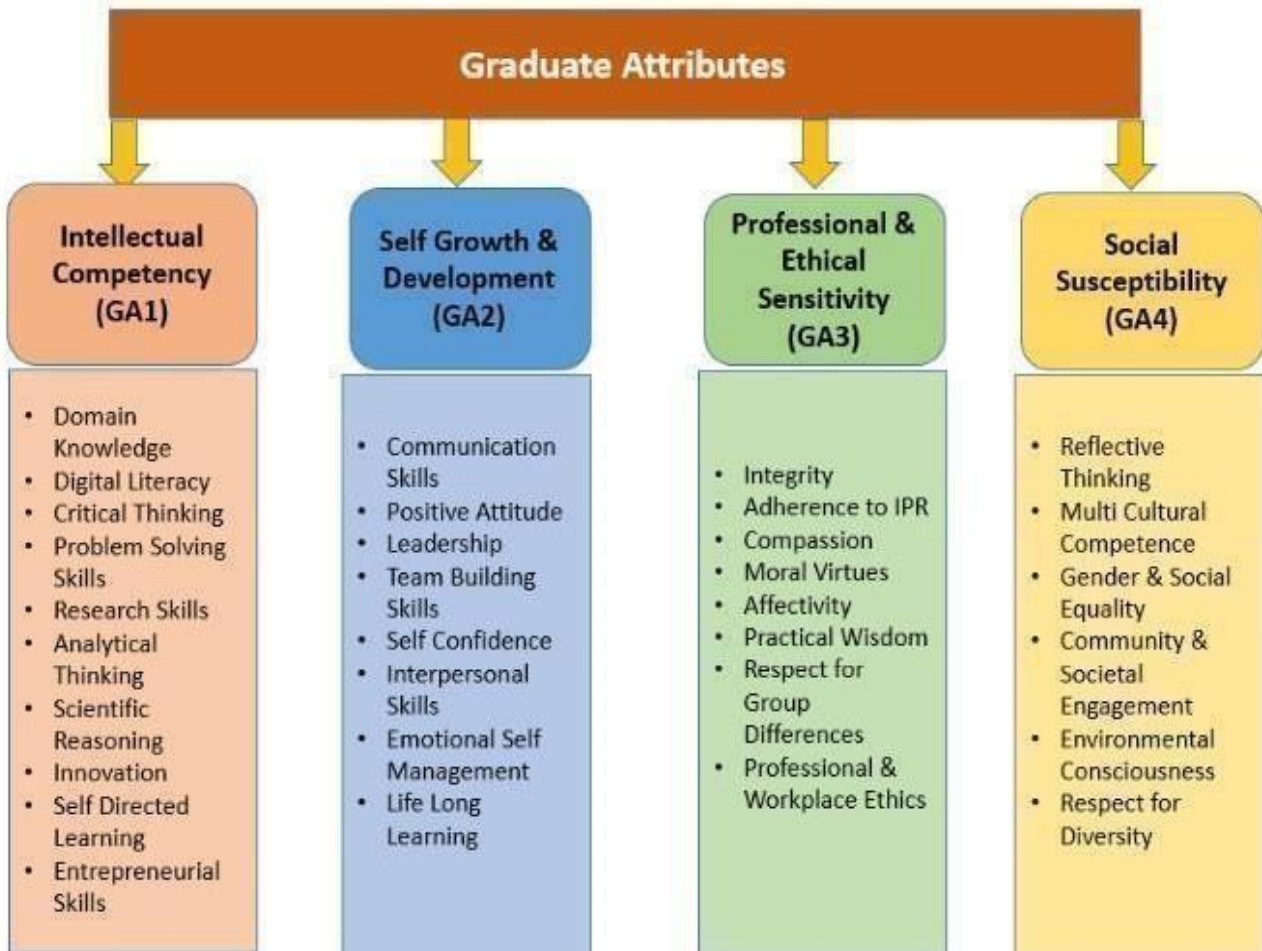
The mission of the **Bachelor in Medical Radiology and Imaging Technology (BMRIT)** program is to provide quality education and hands-on clinical training to develop competent radiologic technologists who can meet the growing demands of modern healthcare. The program is dedicated to fostering a learning environment that emphasizes technical proficiency, ethical practice, patient safety, and compassionate care. It strives to instill critical thinking, professionalism, and a commitment to lifelong learning through evidence-based teaching, interdisciplinary collaboration, and exposure to advanced imaging technologies. By aligning with national academic standards and healthcare needs, the BRIT program aims to prepare graduates who can contribute effectively to diagnostic services and uphold the highest standards of radiological practice in diverse clinical settings.

GRADUATE ATTRIBUTES

Jharkhand Rai University is a mecca of transformative education which strongly believes in the holistic development of students. The university provides the cutting-edge of holistic learning to develop promising youngsters into leaders of tomorrow with globally relevant, future-ready and actionable intelligence. The objective of the Department is to make each student proficient in synthesizing/analyzing information and be ethical, socially responsible, and just when making decisions. JRU ensures inclusive and equitable quality education and promote lifelong learning opportunities for all.

Every graduate of the Department will be developed to possess the following attributes:

1. Intellectual Competency
2. Self-Growth & Development
3. Professional & Ethical Sensitivity
4. Social Susceptibility



PROGRAM EDUCATIONAL OBJECTIVES (PEOs):

PEO 1	To apply in-depth knowledge of radiology and imaging sciences, along with technical skills, to perform diagnostic procedures effectively and safely in hospitals, diagnostic centres, and clinical settings.
PEO 2	To uphold professional ethics, legal responsibilities, and patient confidentiality while delivering compassionate and patient-centred care in accordance with healthcare standards and policies.
PEO 3	To engage in continuous learning through higher education, skill enhancement programs, MOOCs, and professional certifications to stay updated with evolving medical imaging technologies.
PEO 4	To demonstrate strong communication and interpersonal skills to work effectively as part of multidisciplinary healthcare teams and maintain efficient patient interactions.
PEO 5	To develop the ability to take on leadership roles in healthcare organizations, manage imaging departments, ensure quality control, and contribute to improving radiological services.
PEO 6	To equipped to understand and participate in research activities, evidence-based practices, and innovations that contribute to the advancement of medical imaging and public health.

PROGRAM OUT COMES (POs):

On successfully completing the BMRIT program the student's will be able to:

PO1	Apply comprehensive knowledge of radiologic anatomy, imaging physics, and patient positioning to perform accurate and high-quality diagnostic procedures using modern imaging technologies.
PO2	Operate and manage imaging equipment such as X-ray, CT, MRI, Ultrasound, and digital systems with precision, ensuring quality control and equipment safety.
PO3	Demonstrate clinical competence in handling patients, maintaining hygiene, infection control, and ensuring patient comfort, dignity, and safety during procedures.
PO4	Communicate effectively with patients, radiologists, physicians, and other healthcare professionals, and maintain clear and accurate documentation.
PO5	Exhibit ethical behaviour, integrity, and professionalism in healthcare settings, respecting patient confidentiality and adhering to legal and regulatory standards.
PO6	Identify and analyze imaging-related issues or artifacts and apply problem-solving skills to ensure diagnostic accuracy and clinical decision-making support.

MAPPING OF PEO AND PO

POs	PEOs			
	PEO1	PEO2	PEO3	PEO4
PO1	H	M		
PO2	H	M		
PO3	H	L		
PO4				H
PO5				H
PO6			H	

COURSE COMPONENT OF BRIT PROGRAM

04 YEARS COURSE		
Category	Required Number of Credit	Credit Offered
Discipline Specific Course-Core/Major	80	42
Discipline Specific Course-Core/Minor	32	30
Multidisciplinary Course	09	14
Ability Enhancement Course-Compulsory	08	04
Skill Enhancement Course-Compulsory	09	05
Common Value- Added Course	06	30
Internship	04	28
Research Project/ Dissertation	12	12
TOTAL	160	166

43A	Departmental Code
CC	Core Course
MDC	Multidisciplinary Course
SEC	Skill Enhancement Course
ACE	Ability Enhancement Course
CCDE	Core Course Departmental Elective
VAC	Value Added Courses

ASSESSMENTS CHEME:

Assessment Scheme					
CIE- Continuous Internal Evaluation (30Marks)					
Assessment Parameters	Assessment Tools	Marks	Percentage (%)	Bloom's Taxonomy Category	Bloom's Taxonomy Level LOT/HOT
Assignment1	Assignment consisting of minimum 5 Questions	10	33.3	Remember, Understand, Apply	LOT
Assignment2	Assignment consisting Of minimum 2 Questions	10	33.3	Analyze, Evaluate, Create	HOT
Teacher Assessment/ Class Participation					
Class Participation	Brainstorming, Discussion, Attendance, Extempore or any other activity	5	16.67		
EC&CC Activities	Extracurricular & Co- Curricular Activities	5	16.67		
ESE-End Semester Examination (70Marks)					
Bloom's Taxonomy Category	ESE Question Paper Section	Percentage (%)	Bloom's Taxonomy Level LOT/HOT		
Remember	A	30	LOT		
Understand	A				
Apply	B	40	LOT/HOT		
Analyze	B				
Evaluate & create	C	30	HOT		