



**INTEGRAL UNIVERSITY, LUCKNOW**  
**INTEGRAL INSTITUTE OF ALLIED HEALTH SCIENCES &**  
**RESEARCH**  
**DEPARTMENT OF PARAMEDICAL SCIENCES**

**BACHELOR OF MEDICAL RADIOLOGICAL IMAGING**  
**SCIENCES**

**(BMRIS)**

**SYLLABUS AND EVALUATION**  
**SCHEME YEAR/ SEMESTER**

**I/I & I/II**

**&**

**PEOs-POs-PSOs**



**Integral University, Lucknow**  
**Department of Paramedical Sciences**  
**Study and Evaluation Scheme**

**Program: BMRIS**

**Semester-I**

S. N.	Course code	Course Title	Type of Paper	Period Per hr/week/sem			Evaluation Scheme				Sub. Total	Credit	Total Credits
				L	T	P	CT	TA	Total	ESE			
<b>THEORIES</b>													
1	RS101	Human Anatomy- I	Core	3	1	0	40	20	60	40	100	3:1:0	4
2	RS102	Human Physiology-I	Core	3	1	0	40	20	60	40	100	3:1:0	4
3	RS103	Basic and Radiation Physics	Core	3	1	0	40	20	60	40	100	3:1:0	4
4	RS104	Basic Preventive Medicine & Community Health Care	Core	3	1	0	40	20	60	40	100	3:1:0	4
5	LN101	Basic Professional Communication	Core	2	1	0	40	20	60	40	100	2:1:0	3
6	CS103	Introduction to Computers	Core	2	1	0	40	20	60	40	100	2:1:0	3
<b>PRACTICA</b>													
<b>L</b>													
1	RS105	Human Anatomy-I Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
2	RS106	Human Physiology-I Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
3	RS107	Basic and Radiation Physics-Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
<b>Total</b>				<b>16</b>	<b>06</b>	<b>06</b>	<b>360</b>	<b>180</b>	<b>540</b>	<b>360</b>	<b>900</b>	<b>25</b>	<b>25</b>

S. N.	Course code	Course Title	Type of Paper	Attributes							United Nation Sustainable Development Goal (SDGs)
				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
<b>THEORIES</b>											
1	RS101	Human Anatomy- I	Core	√	√	√	√		√	√	3,4
2	RS102	Human Physiology-I	Core	√	√	√	√		√	√	3,4
3	RS103	Basic and Radiation Physics	Core	√	√	√	√		√	√	3,4
4	RS104	Basic Preventive Medicine & Community Health Care	Core	√	√	√	√		√	√	3,4
5	LN101	Basic Professional Communication	Core			√					3,4, 11
6	CS103	Introduction to Computers	Core			√					3,4, 11
<b>PRACTICA</b>											
<b>L</b>											
1	RS105	Human Anatomy-I Lab	Core	√	√	√	√		√	√	3,4
2	RS106	Human Physiology-I Lab	Core	√	√	√	√		√	√	3,4
3	RS107	Basic and Radiation Physics-Lab	Core	√	√	√	√		√	√	3,4

**L:** Lecture      **T:** Tutorials      **P:** Practical      **CT:** Class Test      **TA:** Teacher Assessment      **ESE:** End Semester Examination,  
**AE=** Ability enhancement, **DSE-** Discipline Specific Elective, **Sessional Total:** Class Test + Teacher Assessment      **Subject Total:** Sessional Total + End Semester Examination (ESE)



**Integral University, Lucknow**  
**Department of Paramedical Sciences**  
**Study and Evaluation Scheme**

**Program: BMRIS**

**Semester-II**

S. N.	Course code	Course Title	Type of Paper	Period Per hr/week/sem			Evaluation Scheme				Sub. Total	Credit	Total Credits
				L	T	P	CT	TA	Total	ESE			
<b>THEORIES</b>													
1	RS108	Human Anatomy-II	Core	2	1	0	40	20	60	40	100	2:1:0	3
2	RS109	Human Physiology-II	Core	2	1	0	40	20	60	40	100	2:1:0	3
3	RS110	Radiation Hazard, Control & Radiotherapy	Core	3	1	0	40	20	60	40	100	3:1:0	4
4	RS111	Conventional Radiographic Techniques-I	Core	2	1	0	40	20	60	40	100	2:1:0	3
5	RS112	Medical Law & Ethics	Core	3	1	0	40	20	60	40	100	3:1:0	4
6	LN131	Effective Communication and Media Studies in English	Core	2	1	0	40	20	60	40	100	2:1:0	3
<b>PRACTICAL</b>													
1	RS113	Human Anatomy-II Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
2	RS114	Human Physiology-II Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
3	RS115	Radiation Hazard, Control & Radiotherapy - Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
4	RS116	Conventional Radiographic Techniques-I Lab	Core	0	0	4	40	20	60	40	100	0:0:2	2
<b>Total</b>				<b>14</b>	<b>06</b>	<b>10</b>	<b>400</b>	<b>200</b>	<b>600</b>	<b>400</b>	<b>1000</b>	<b>25</b>	<b>25</b>

S. N.	Course code	Course Title	Type of Paper	Attributes						United Nation Sustainable Development Goal (SDGs)	
				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value		Professional Ethics
<b>THEORIES</b>											
1	RS108	Human Anatomy-II	Core	√	√	√	√		√	√	3,4
2	RS109	Human Physiology-II	Core	√	√	√	√		√	√	3,4
3	RS110	Radiation Hazard, Control & Radiotherapy	Core	√	√	√	√		√	√	3,4
4	RS111	Conventional Radiographic Techniques-I	Core	√	√	√	√		√	√	3,4
5	RS112	Medical Law & Ethics	Core	√	√	√	√		√	√	3,4, 11
6	LN131	Effective Communication and Media Studies in English	Core			√					3,4, 11, 16
<b>PRACTICAL</b>											
1	RS113	Human Anatomy-II Lab	Core	√	√	√	√		√	√	3,4
2	RS114	Human Physiology-II Lab	Core	√	√	√	√		√	√	3,4
3	RS115	Radiation Hazard, Control & Radiotherapy -Lab	Core	√	√	√	√		√	√	3,4
4	RS116	Conventional Radiographic Techniques-I Lab	Core	√	√	√	√		√	√	3,4

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# **BACHELOR OF MEDICAL RADIOLOGICAL IMAGING SCIENCES (BMRIS)**



## **Program Educational Outcomes (PEOs)**

## Program Educational Outcomes (PEOs)

The educational goals of the curriculum reflect the knowledge, skills, and behaviors expected of program graduates. The graduates of the Integral University BMRIS program will be expected to:

<b>PEO1:</b>	Be advanced leaders in the profession.
<b>PEO2:</b>	Be compassionate, caring healthcare professionals.
<b>PEO3:</b>	Be eligible, well-prepared, and able to sit for and pass the credentialing examination.
<b>PEO4:</b>	Have immediate job placement within six months of graduation.
<b>PEO5:</b>	Work in advanced imaging fields and sit for advanced imaging Examinations.
<b>PEO6:</b>	Identify with and contribute to the aims and ideals of the profession.
<b>PEO7:</b>	Practice in an ethical and legal manner.

**BACHELOR OF MEDICAL RADIOLOGICAL  
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**PROGRAMME  
OUTCOMES  
(POs)**

# **BACHELOR OF MEDICAL RADIOLOGICAL IMAGING SCIENCES (BMRIS)**

**PROGRAMME OUTCOMES (POs) POs and its Attributes: -**

Radio imaging Graduates will be able to-

<b>PO-1:</b>	Understanding ways of functioning effectively as an individual independently and as a member in diverse team in multidisciplinary settings. (Attitude)
<b>PO-2:</b>	Understanding requirements of continuous education as a function of growth and maintenance of professional competence. (Lifelong learning)
<b>PO-3:</b>	Understanding environmental consciousness and societal concerns in achieving sustainable development. (Environment and Sustainability)
<b>PO-4:</b>	Applying computer skills in health care system and taking entrepreneurial decisions. (Entrepreneurship)
<b>PO-5:</b>	Applying knowledge to assess societal, health, safety and legal issues related to professional practice. (Social interaction & effective citizenship)
<b>PO-6:</b>	Applying systematized problem-solving techniques to identify and correct procedural errors to verify the accuracy of laboratory result obtained. (Problem analysis and solving)
<b>PO-7:</b>	Applying appropriate techniques, resources and tools with an understanding of limitations. (Technology savvy/usage)
<b>PO-8:</b>	Developing the ability towards ethical as well as critical thinking. (Critical thinking)
<b>PO-9:</b>	Executing professional conduct and interpersonal communicational skills effectively with society at large. (Communication)
<b>PO-10:</b>	Have the technical ability to correctly repeat images, when the quality is not adequate for diagnostics.
<b>PO-11:</b>	Demonstrate radiation safety for self, staff, and patients as set for RSh by the ALARA standards.
<b>PO-12:</b>	Demonstrate an understanding of advanced multiple imaging modalities and the need for lifelong learning.



**BACHELOR OF MEDICAL RADIOLOGICAL  
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**Program Specific Outcomes  
(PSOs)**

Program Specific Objectives (PSOs) are specific statements that describe the professional career accomplishment that the program is designed. The PSO's of the BMRIS program are as follows:

<b>PSO1:</b>	Understanding the basic concepts, theories of applied sciences (physics, chemistry, Anatomy, physiology, biochemistry, pathology) relevant to radiological imaging techniques.
<b>PSO2:</b>	Remembering the relationship between physics and radiology & modern imaging
<b>PSO3:</b>	Understanding provisions for radiation safety by various national & international regulatory bodies and applying quality assurance measures.
<b>PSO4:</b>	Safety procedures and maintenance of radiological equipment's.
<b>PSO5:</b>	Operating all radiological and imaging equipment independently and perform the image processing in X-Ray, Fluoroscopy, Computed Tomography, Dual Energy X-Ray Absorptiometry (DEXA), Mammography, Digital Subtraction Angiography, Magnetic Resonance Imaging, Ultrasonography, Nuclear Medicine