



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

BACHELOR OF SCIENCE IN RADIOLOGICAL IMAGING
TECHNOLOGY
(B.Sc.RIT)

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: B.Sc. RIT

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			
THEORIES													
1	RT101	Human Anatomy- I	Core	3	1	0	40	20	60	40	100	3:1:0	4
2	RT102	Human Physiology-I	Core	3	1	0	40	20	60	40	100	3:1:0	4
3	RT103	Basic and Radiation Physics	Core	3	1	0	40	20	60	40	100	3:1:0	4
4	RT104	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
PRACTICAL													
1	RT105	Human Anatomy-I Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
2	RT106	Human Physiology-I Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
3	RT107	Basic and Radiation Physics-Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
Total				Total	16	06	06	360	180	540	360	900	25

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	
THEORIES											
1	RT101	Human Anatomy- I	Core	√	√	√	√		√	√	3,4
2	RT102	Human Physiology-I	Core	√	√	√	√		√	√	3,4
3	RT103	Basic and Radiation Physics	Core	√	√	√	√		√	√	3,4
4	RT104	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
PRACTICAL											
1	RT105	Human Anatomy- I Lab	Core	√	√	√	√		√	√	3,4
2	RT106	Human Physiology-I Lab	Core	√	√	√	√		√	√	3,4
3	RT107	Basic Physics 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: B.Sc. RIT

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			
THEORIES													
1	RT108	Human Anatomy-II	Core	2	1	0	40	20	60	40	100	2:1:0	3
2	RT109	Human Physiology-II	Core	2	1	0	40	20	60	40	100	2:1:0	3
3	RT110	Radiation Hazard, Control & Radiotherapy	Core	3	1	0	40	20	60	40	100	3:1:0	4
4	RT111	Radiographic Positioning-I	Core	3	1	0	40	20	60	40	100	3:1:0	4
5	RT112	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
PRACTICAL													
1	RT113	Human Anatomy-II Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
2	RT114	Human Physiology-II Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
3	RT115	Radiation Hazard, Control & Radiotherapy - Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
4	RT116	Radiographic Positioning -I Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
Total				Total	15	06	08	400	200	600	400	1000	25

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
THEORIES											
1	RT108	Human Anatomy-II	Core	√	√	√	√		√	√	3,4
2	RT109	Human Physiology-II	Core	√	√	√	√		√	√	3,4
3	RT110	Radiation Hazard, Control & Radiotherapy	Core	√	√	√	√		√	√	3,4
4	RT111	Radiographic Positioning -I	Core	√	√	√	√		√	√	3,4
5	RT112	Medical Law & Ethics	Core	√	√	√	√		√	√	3,4, 11
6	LN131	Effective Communication and Media Studies in English	Core			√					3,4, 11, 16
PRACTICAL											
1	RT113	Human Anatomy-II Lab	Core	√	√	√	√		√	√	3,4
2	RT114	Human Physiology-II Lab	Core	√	√	√	√		√	√	3,4
3	RT115	Radiation Hazard, Control & Radiotherapy -Lab	Core	√	√	√	√		√	√	3,4
4	RT116	Radiographic Positioning -I 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)

**BACHELOR OF SCIENCE IN RADIOLOGICAL IMAGING
TECHNOLOGY
(B.Sc.RIT)**



**Program Educational Outcomes
(PEOs)**

Program Educational Outcomes (PEOs)

The PEOs are broad statements that describe the career and professional accomplishments that the program is preparing its graduates to achieve in few years subsequent to receiving the degree. The PEO's of the B.Sc. RIT program are as follows and the graduates of the Integral University forensic science program will be expected to:

PEO1:	<ul style="list-style-type: none">• Be advanced leaders in the profession. Be compassionate, caring healthcare professionals.
PEO2:	<ul style="list-style-type: none">• Be eligible, well-prepared, and able to sit for and pass the credentialing examination.
PEO3:	<ul style="list-style-type: none">• Have immediate job placement within six months of graduation.
PEO4:	<ul style="list-style-type: none">• Work in advanced imaging fields and sit for advanced imaging Examinations.
PEO5:	<ul style="list-style-type: none">• Identify with and contribute to the aims and ideals of the profession. Practice in an ethical and legal manner.

**BACHELOR OF SCIENCE IN RADIOLOGICAL IMAGING
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**PROGRAMME OUTCOMES
(POs)**

BACHELOR OF SCIENCE IN RADIOLOGICAL IMAGING TECHNOLOGY (B.Sc.RIT) PROGRAMME OUTCOMES (POs)

PROGRAMME OUTCOMES (POs) POs and its Attributes: -

Program Outcomes (POs) are attributes of the graduates of the Programme that are the Radiological Imaging Technologist Programme is to prepare students with the aim of the course is to provide a comprehensive, training to the students that prepares them for providing a quality diagnosis of the patients so that at the end of the course he/she will be able to perform the following

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

**BACHELOR OF SCIENCE IN RADIOLOGICAL IMAGING
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**Program Specific Outcomes
(PSOs)**

**BACHELOR OF SCIENCE IN RADIOLOGICAL IMAGING TECHNOLOGY
(B.Sc.RIT)
PROGRAMME SPECIFIC OUTCOME (PSOs)**

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

PSO1:	Understanding the basic concepts, theories of applied sciences (physics, chemistry, Anatomy, physiology, biochemistry, pathology) relevant to radiological imaging techniques.
PSO2:	Remembering the relationship between physics and radiology & modern imaging
PSO3:	Understanding provisions for radiation safety by various national & international regulatory bodies and applying quality assurance measures.
PSO4:	Safety procedures and maintenance of radiological equipments.
PSO5:	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