



Bachelor of Science (Honours) in Medical Laboratory Technology (BMLT)

**EFFECTIVE FROM
ACADEMIC SESSION
2025-2026 onwards**

SYLLABUS MANUAL

VISION OF THE UNIVERSITY

To become a premier source of highly skilled and knowledgeable medical laboratory technician who can monitor the effectiveness of therapy and help healthcare professionals to diagnose diseases accurately.

MISSION OF THE UNIVERSITY

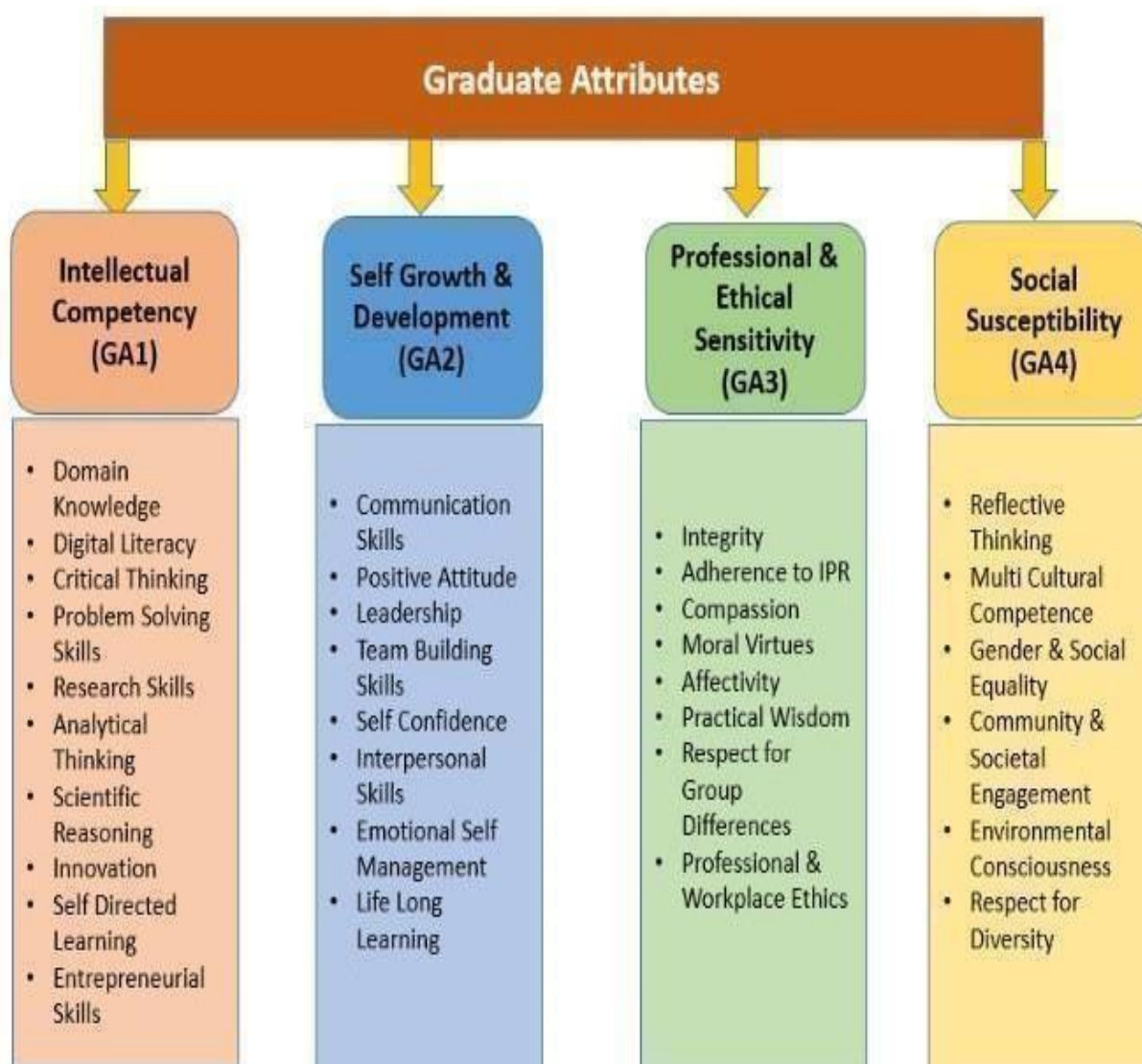
- . To serve as a source of knowledgeable medical laboratory technicians with a true spirit to help the community and society.
- To provide a pool of possibilities in the healthcare industry for medical laboratory technologists from economically and socially disadvantaged families.
- To form alliances with reputable medical facilities and pathology laboratories in order to support their efforts in creating error-free diagnosis processes.

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 (PEO)

PEO1	To provide thorough knowledge in various subjects of medical laboratory including theoretical and practical training for appropriate continuing education opportunities to medical laboratory professionals.
PEO2	To train recent graduates in medical laboratory science for job in hospitals and related research center.
PEO3	To provide an equal opportunity for all the graduates to become an entrepreneur through visit of various labs and clinical internship.
PEO4	To gain medical laboratory knowledge and have a value-added responsibility towards the community health issues.

PROGRAM OUTCOME (PO)

On successfully completing the B.Sc. (Honours)- MLT program the students will be able to:

PO1	Work as technologists or technicians at clinics/hospitals/medical laboratories.
PO2	To operate in diverse laboratory environment and comprehend a widerange of laboratory techniques and protocols.
PO3	Graduates shall be capable of working in a variety of laboratory settings, handling various types of instruments and understand the various laboratory skills and procedures.
PO4	As a health professional the students shall gain medical laboratory knowledge and have a value-added responsibility towards the community health issues.
PO5	To understand and manage the prevailing health problems, focus on socio-economical process and apply suitable remedial measures.
PO6	After successful completion the students shall be capable for new start-up as per knowledge, skills and having lots of future prospects in higher and research-based studies.

MAPPING OF PEO AND PO

POs	PEOs			
	PEO 1	PEO 2	PEO 3	PEO 4
PO 1	H	M		
PO 2	H	M		
PO 3	H	L		
PO 4				H
PO 5				H
PO 6			H	

COURSE COMPONENT FOR 03 YEARS PROGRAM

03 YEARS COURSE		
Category	Required Number of Credit	Credit Offered
Discipline Specific Course-Core/Major	60	33
Discipline Specific Course-Core/Minor	24	20
Multidisciplinary Course	09	27
Ability Enhancement Course-Compulsory	08	05
Skill Enhancement Course- Compulsory	09	05
Common Value-Added Course	06	10
Internship	04	20
Research Project/ Dissertation	-	-
TOTAL	120	120 + 10* = 130

Note: Credits (*) to be earned from SWAYAM MOOCs.

COURSE COMPONENT FOR 04 YEARS PROGRAM

04 YEARS COURSE		
Category	Required Number of Credit	Credit Offered
Discipline Specific Course-Core/Major	80	42
Discipline Specific Course-Core/Minor	32	29
Multidisciplinary Course	09	29
Ability Enhancement Course-Compulsory	08	05
Skill Enhancement Course- Compulsory	09	05
Common Value-Added Course	06	10
Internship	04	32
Research Project/ Dissertation	12	08
TOTAL	160	160 + 10* = 170

Note: Credits (*) to be earned from SWAYAM MOOCs.

42A	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

Detailed Assessment Scheme

Assessment Scheme					
CIA- Continuous Internal Assessment (30 Marks)					
Assessment Parameters	Assessment Tools	Marks	Percentage (%)	Bloom's Taxonomy Category	Bloom's Taxonomy Level LOT/HOT
Assignment 1	Assignment consisting of minimum 5 Questions	10	33.3	Remember, Understand, Apply	LOT
Assignment 2	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 (70 Marks)					
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	