

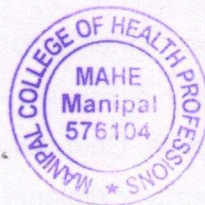
aggregate or equivalent grade points in respective qualifying exams. Candidates must have adequate English Proficiency. The candidates who have fulfilled the above requirements will be eligible for direct admission in the Third semester.

On completion of the BSc. MLT, Technologists can progress to supervisory or management positions in labs and hospitals. They can also work as Laboratory manager, Laboratory Consultant, supervisor, health care administrator, Hospital Outreach coordinator, Educational consultant and Research assistant. Additional opportunities are available in molecular diagnostics, molecular biotechnology companies, environmental health & insurance and in vitro fertilization laboratories. In industry, Medical Technologists are needed for positions in product development, marketing and quality assurance. Medical Laboratory Technology is one of the fastest growing professions and it offers tremendous opportunity abroad.

2. PROGRAM EDUCATION OBJECTIVES (PEO)

The overall objective of the learning outcome-based curriculum framework (LOCF) for BSc. MLT Program are as follows:

PEO No.	Education Objective
PEO 1	Students will be able to use their fundamental knowledge and clinical/technical competence in Medical Laboratory Technology as and when required to achieve professional excellence.
PEO 2	Students will demonstrate strong and well defined clinical as well as practical skills in laboratory medicine.
PEO 3	Students will be able to practice the profession with highly professional and ethical attitude, strong communication skills, and effective professional skills to work in an inter-disciplinary team.
PEO 4	Students will be able to use interpersonal and collaborative skills to identify, assess and formulate problems and execute the solution in the field of laboratory medicine.
PEO 5	Students will be able to imbibe the culture of research, innovation, entrepreneurship and incubation.
PEO 6	Students will be able to participate in lifelong learning process for a highly productive career and will be able to relate the concepts in the field of laboratory medicine towards serving the cause of the society.



3. GRADUATE ATTRIBUTES

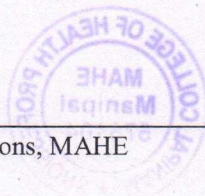
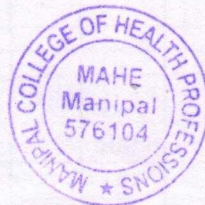
S No.	Attribute	Description
1	Professional Knowledge	Demonstrate scientific knowledge and understanding to work as a health care professional
2	Clinical / technical / Laboratory / practical skills	Demonstrate Clinical, technical and practical skills in order to implement the preventive, assessment and management plans for quality health care services
3.	Communication	Ability to communicate effectively and appropriately in writing and orally to patients/clients, care-givers, other health professionals and other members of the community
4.	Cooperation/Team work	Ability to work effectively and respectfully with interdisciplinary team members to achieve coordinated, high quality health care
5.	Professional ethics	Ability to identify ethical issues and apply the ethical values in the professional life
6.	Research / Innovation-related Skills	A sense of inquiry and investigation for raising relevant and contemporary questions, synthesizing and articulating.
7.	Critical thinking and problem solving	Ability to think critically and apply once learning to real-life situations
8.	Reflective thinking	Ability to employ reflective thinking along with the ability to create the sense of awareness of one self and society
9.	Information/digital literacy	Ability to use ICT in a variety of learning situations
10.	Multi-cultural competence	Ability to effectively engage in a multicultural society and interact respectfully
11.	Leadership readiness/qualities	Ability to respond in an autonomous and confident manner to planned and uncertain situations, and should be able to manage themselves and others effectively
12.	Lifelong Learning	Every graduate to be converted into lifelong learner and consistently update himself or herself with current knowledge, skills and technologies. Acquiring Knowledge and creating the understanding in learners that learning will continue throughout life.



5. PROGRAM OUTCOMES (POs):

After successful completion of Bachelor / BSc Medical Laboratory Technology program, students will be able to:

PO No.	Attribute	Competency
PO 1	Professional knowledge	Possess and acquire scientific knowledge to work as a health care professional
PO 2	Clinical/ Technical skills	Demonstrate and possess clinical skills to provide quality health care services
PO 3	Team work	Demonstrate team work skills to support shared goals with the interdisciplinary health care team to improve societal health
PO 4	Ethical value & professionalism	Possess and demonstrate ethical values and professionalism within the legal framework of the society
PO 5	Communication	Communicate effectively and appropriately with the interdisciplinary health care team and the society
PO 6	Evidence based practice	Demonstrate high quality evidence based practice that leads to excellence in professional practice
PO 7	Life-long learning	Enhance knowledge and skills with the use of advancing technology for the continual improvement of professional practice
PO 8	Entrepreneurship, leadership and mentorship	Display entrepreneurship, leadership and mentorship skills to practice independently as well as in collaboration with the interdisciplinary health care team



SEMESTER - III

Course Code	Course title	Credit distribution (Hours/week)					Marks distribution		
		L	T	P	CL	C	IAC	ESE	TOTAL
MLT2101	Basic Hematology	1	1	-	-	2	50	50	100
MLT2161	Hematology - I	-	-	4	3	3	50	50	100
MLT2102	Applied Biochemistry - I	2	1	-	-	3	50	50	100
MLT2162	Clinical Biochemistry - I	-	-	4	3	3	50	50	100
MLT2103	Immunology and Immuno-hematology	2	1	-	-	3	50	50	100
MLT2163	Transfusion Medicine	-	-	4	3	3	50	50	100
*** **	Open Elective - I	-	-	-	-	3	S/NS		
TOTAL		5	3	12	9	20	300	300	600

Note:

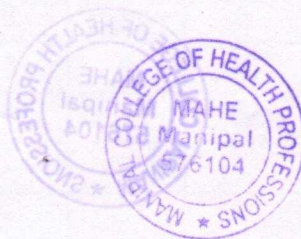
ESE for MLT2161, MLT2102, MLT2162, MLT2103, MLT2163, will be conducted for 100 marks and normalized to 50 marks

SEMESTER - IV

Course Code	Course title	Credit distribution (Hours/week)					Marks distribution		
		L	T	P	CL	C	IAC	ESE	TOTAL
BST3201	Biostatistics and Research Methodology	3	-	-	-	3	30	70	100
GPY2203	General Psychology	2	-	-	-	2	50	50	100
MLT2201	Hematological Disorder	2	1	-	-	3	50	50	100
MLT2261	Hematology - II	-	-	4	3	3	100	-	100
MLT2202	Applied Biochemistry - II	2	1	-	-	3	50	50	100
MLT2262	Clinical Biochemistry - II	-	-	4	3	3	100	-	100
MLT****	Program Elective - I	2	1	-	-	3	50	50	100
TOTAL		11	3	8	6	20	430	270	700

Note: ESE for BST3201 will be conducted for 100 marks and normalized to 70 marks

ESE for MLT2201, MLT2202, will be conducted for 100 marks and normalized to 50 marks



SEMESTER - V

Course Code	Course title	Credit distribution (Hours/week)					Marks distribution		
		L	T	P	CL	C	IAC	ESE	TOTAL
MLT3101	Histopathology	2	1	-	-	3	50	50	100
MLT3161	Histopathological Techniques	-	-	4	6	4	50	50	100
MLT3102	General Microbiology	1	1	-	-	2	50	50	100
MLT3103	Systematic Bacteriology	3	1	-	-	4	50	50	100
MLT3162	Microbiology - I	-	-	4	6	4	50	50	100
*** **	Open Elective - II	-	-	-	-	3	S/NS		
	TOTAL	6	3	8	12	20	250	250	500

Note:

ESE for MLT3101, MLT3161, MLT3103, MLT3162 will be conducted for 100 marks and normalized to 50 marks

SEMESTER - VI

Course Code	Course title	Credit distribution (Hours/week)					Marks distribution		
		L	T	P	CL	C	IAC	ESE	TOTAL
MLT3201	Medical Parasitology and Entomology	2	1	-	-	3	50	50	100
MLT3202	Medical Mycology & Virology	2	1	-	-	3	50	50	100
MLT3261	Microbiology - II	-	-	2	3	2	100	-	100
MLT3203	Cytology and Developmental Biology	2	1	-	-	3	50	50	100
MLT3262	Cytological Techniques	-	-	2	3	2	100	-	100
MLT3204	Public Health Laboratory Science	1	1	-	-	2	100	-	100
MLT3205	Molecular Biology	1	1	-	-	2	100	-	100
MLT****	Program Elective - II	2	1	-	-	3	50	50	100
	TOTAL	10	6	4	6	20	600	200	800

Note: ESE for MLT3201, MLT3202, MLT3203 will be conducted for 100 marks and normalized to 50 marks



Open Electives

Open elective is credited, choice-based and is graded as satisfactory / not satisfactory (S/NS). Students make a choice from pool of electives offered by MAHE institution / Online courses as approved by the department

Program Electives

Program elective is credited and choice-based. The students make a choice from pool of electives offered by the department. The ESE is conducted for 50 marks.

Semester	Course Code	Course Title	Credit (s) Distribution (L,T,P,CL are hours/ week)				
			L	T	P	CL	CR
IV Semester	MLT2241	Metabolic Disorder	2	1	-	-	3
	MLT2242	Nutrition and Health	2	1	-	-	3
VI Semester	MLT3241	Food Microbiology	2	1	-	-	3
	MLT3242	Advanced Diagnostic tests in Pathology	2	1	-	-	3

SEMESTER - VII and VIII

Internship (1 year, 48 hours/week)

Semester VII	Internship - I	Duration 6 months 48 hours in a week / 7 hours in a day 6days a week
Semester VIII	Internship - II	Duration 6 months 48 hours in a week / 7 hours in a day 6days a week

OVERALL CREDIT DISTRIBUTION

Semester	Hours per week				Total Credits	Marks		
	L	T	P	CL		IAC	ESE	Total
Semester - I	13	2	4	9	20	510	190	700
Semester - II	9	5	6	9	20	510	190	700
Semester - III	5	3	12	9	20	300	300	600
Semester - IV	11	3	8	6	20	430	270	700
Semester - V	6	3	8	12	20	250	250	500
Semester - VI	10	6	4	6	20	600	200	800
Semester - VII	-	-	-	-	-	-	-	-
Semester - VIII	-	-	-	-	-	-	-	-
Total	54	22	42	51	120	2800	1400	4200

