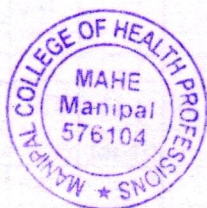


5. PROGRAM OUTCOMES (POs):

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



6. COURSE STRUCTURE, COURSE WISE LEARNING OBJECTIVE, COURSE OUTCOMES (COs)

SEMESTER - I

Course Code	Course title	Credit distribution (Hours/week)					Marks distribution		
		L	T	P	CL	C	IAC	ESE	TOTAL
ANA1103	Anatomy	3	-	-	-	3	30	70	100
PHY1101	Physiology - I	2	-	-	-	2	30	70	100
CSK1001	Communication Skills	2	-	-	-	2	100	-	100
EIC1001	Environmental science and Indian constitution	2	-	-	-	2	100	-	100
MLT1101	Biomedical Instrumentation	2	1	-	-	3	50	50	100
MLT1161	Basic Laboratory Techniques	-	-	4	9	5	100	-	100
MLT1102	Laboratory Safety Management	2	1	-	-	3	100	-	100
TOTAL		13	2	4	9	20	510	190	700

Note:

ESE for ANA1103, PHY1101 will be conducted for 50 marks and normalized to 70 marks

ESE for MLT1101 will be conducted for 100 marks and normalized to 50 marks

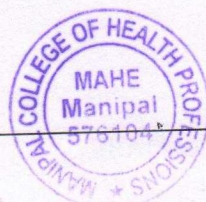
SEMESTER - II

Course Code	Course title	Credit distribution (Hours/week)					Marks distribution		
		L	T	P	CL	C	IAC	ESE	TOTAL
PHY1201	Physiology - II	2	-	-	-	2	30	70	100
BIC1201	Biochemistry	3	-	-	-	3	30	70	100
MLT1261	Basics of Clinical Biochemistry	-	-	4	6	4	100	-	100
MLT1201	Clinical Laboratory Management and Automation	2	1	-	-	3	50	50	100
MLT1262	Clinical Pathology	-	2	2	3	4	100	-	100
MLT1202	Ethics in Medical Laboratory Science	1	1	-	-	2	100	-	100
MLT1203	Pharmacology	1	1	-	-	2	100	-	100
TOTAL		9	5	6	9	20	510	190	700

Note:

ESE for PHY1201 & BIC1201 will be conducted for 50 marks and normalized to 70 marks

ESE for MLT1201 will be conducted for 100 marks and normalized to 50 marks



SEMESTER - III

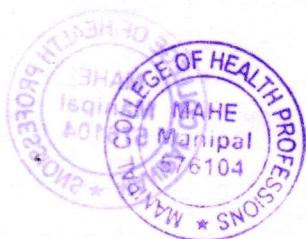
Course Code	Course title	Credit distribution (Hours/week)					Marks distribution		
		L	T	P	CL	C	IAC	ESE	TOTAL
MLT2101	Basic Hematology	1	1	-	-	2	50	50	100
MLT2161	Hematology - I	-	-	4	3	3	50	50	100
MLT2102	Applied Biochemistry - I	2	1	-	-	3	50	50	100
MLT2162	Clinical Biochemistry - I	-	-	4	3	3	50	50	100
MLT2103	Immunology and Immunohematology	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

