

# Bachelor of Medical Laboratory Technology (BS-MLT)

## Curriculum Plan and Model

<b>BBA-H Course Distribution</b>		
UM for University Mandatory	15	37+12
CO for Common Optional (core)	7	12+3
Discipline related Courses	26	55+23
<b>Total Credit Hours</b>		<b>142</b>

## Semester Plan

### Semester 1

Code	Course title	CrHr	Pre-Requisite
MLT107	Biochemistry-I	3+1	
MLT102	Human Physiology-I	3+1	
MLT103	Human Anatomy-I	3+1	
MLT111	Functional English	2+0	
HMT122	Pak Studies	2+0	
	<b>Total</b>	<b>(13+3)</b>	

### Semester 2

Code	Course title	CrHr	Pre-Requisite
MLT117	Biochemistry-II	3+1	Biochemistry-I
MLT112	Human Physiology-II	3+1	Human Physiology-I
MLT113	Human Anatomy-II	3+1	Human Anatomy-I
MLT121	Academic and Professional Writing	2+0	Functional English
MLT 114	Introduction to Computer Science	1+1	
HMT121	Islamic Studies	2+0	
	<b>Total</b>	<b>(14+4)</b>	

### Semester 3

Code	Course title	CrHr	Pre-Requisite
MLT201	General Pathology-I	2+1	
MLT202	General Pharmacology-I	2+1	
MLT203	Clinical Bacteriology	2+1	
MLT204	Hematology-I	2+1	
MLT205	Human Genetics	2+1	
MLT231	Communication Skills	2+0	Academic and Professional Writing
	<b>Total</b>	<b>(12+5)</b>	

#### Semester 4

Code	Course title	CrHr	Pre-Requisite
MLT220	General Pharmacology-II	2+1	General Pharmacology-I
MLT211	General Pathology-II	2+1	General Pathology-I
MLT212	RBC Disorders	2+1	
MLT213	Clinical Virology and Mycology	2+1	
MLT214	Chemical Pathology	2+1	
MLT215	Behavioral Sciences	2+0	
	<b>Total</b>	<b>(12+5)</b>	

#### Semester 5

Code	Course title	CrHr	Pre-Requisite
MLT301	WBC and Platelets Disorders	2+1	None
MLT302	Histopathology	2+1	
MLT210	Biostatistics	3+0	
MLT304	Clinical Parasitology	2+1	
MLT305	Clinical Pathology	2+1	
MLT306	Biotechnology	3+0	
	<b>Total</b>	<b>(14+4)</b>	

#### Semester 6

Code	Course title	CrHr	Pre-Requisite
MLT307	Medical Laboratory Instrumentations	2+1	
MLT346	Bioinformatics	1+2	
MLT309	Immunology & Serology	2+1	
BUS362	Research Methods and Skills	3+0	
MLT311	Blood Banking	2+1	
MLT312	Advances in Medical Laboratory Technology	1+2	
	<b>Total</b>	<b>(11+7)</b>	

#### Semester 7

Code	Course title	CrHr	Pre-Requisite
MLT401	Medical Laboratory Management Skills	2+1	
MLT402	Fundamentals of Infection Control	1+1	

MLT403	Molecular Biology	2+1	
MLT404	Epidemiology	2+0	
MLT405	Systemic Diagnostic Bacteriology	2+1	
MLT410	Cytology and Cytogenetics	2+1	
MLT207	<b>Medical Microbiology-I (For None-MLT, None OT, None 2yrs etc Medical Tech)</b>	2+1	
	<b>Total</b>	<b>(13+6)</b>	

### Semester 8

Code	Course title	CrHr	Pre-Requisite
MLT499	Research Project	6+0	RPI-I
MLT216	<b>Hematology-II (For None-MLT, None OT, None 2yrs etc Medical Tech)</b>	2+1	Hematology-I
MLT217	<b>Medical Microbiology-II (For None-MLT, None OT, None 2yrs etc Medical Tech)</b>	2+1	Human Genetics
MLT490	Seminar	1+0	
MLT408	Medical Sociology	3+0	
MLT409	Bio and bioethics	3+0	
	<b>Total</b>	<b>(17+2)</b>	

### Medical Laboratory Technology

BS Medical laboratory technology (BSMLT) is 4 years undergraduate program after FSc. BSMLT is concerned with the diagnosis, treatment and prevention of diseases through the use of clinical laboratory tests. This is a skilled based degree highly demanded by different quarters of health care delivery system. BSMLT program will provide the advanced knowledge of medical laboratory sciences facilitating the diagnostic services in the hospitals and research activities at higher teaching, diagnostic and reference centres.

Program Duration: 08 Semesters

Total Cr.Hr. : 132 for Fsc MLT and 141 for Fsc Non MLT

Eligibility: FSc MLT/ FSc (Pre-Medical) or Equivalent

### Compulsory Courses

Code	Course title	Type	CrHr	Pre-Requisite
MLT111	Functional English	core	2	
MLT231	Communication Skills	core	2	Academic and Professional writings
MLT121	Academic and Professional writings	core	2	Functional English
HMT122	Pakistan Studies	core	2	
HMT121	Islamic Studies	core	2	
MLT114	Introduction to Computer Science	core	1+1	
MLT346	Bioinformatics	core	1+2	
	<b>Credit Hours</b>		<b>12+3</b>	

### University Mandatory Courses

Code	Course title	Type	CrHr	Pre-Requisite
MLT107	Biochemistry-I		3+1	
MLT102	Human Physiology-I		3+1	
MLT103	Human Anatomy-I		3+1	
MLT117	Biochemistry-II		3+1	Biochemistry-I
MLT112	Human Physiology-II		3+1	Human Physiology-I
MLT113	Human Anatomy-II		3+1	Human Anatomy-I
MLT201	General Pathology-I		2+1	
MLT202	General Pharmacology-I		2+1	
MLT220	General Pharmacology-II		2+1	General Pharmacology-I
MLT211	General Pathology-II		2+1	General Pathology-I
MLT205	Human Genetics		2+1	
MLT215	Behavioral Sciences		2+0	
BUS362	Research Methods and Skills		3+0	
MLT403	Molecular Biology		2+1	
MLT404	Epidemiology		2+0	
	<b>Total Credit Hours</b>		<b>37+12</b>	

### Discipline Related Courses

Code	Course title	Type	CrHr	Pre-Requisite
MLT203	Clinical Bacteriology		2+1	
MLT204	Hematology-I		2+1	
MLT212	RBC Disorders		2+1	
MLT213	Clinical Virology and Mycology		2+1	
MLT214	Chemical Pathology		2+1	
MLT301	WBC and Platelets Disorders		2+1	
MLT302	Histopathology		2+1	
MLT304	Clinical Parasitology		2+1	
MLT305	Clinical Pathology		2+1	

MLT306	Biotechnology		3+0	
MLT307	Medical Laboratory Instrumentations		2+1	
MLT346	Bioinformatics		1+2	
MLT309	Immunology & Serology		2+1	
MLT311	Blood Banking		2+1	
MLT312	Advances in Medical Laboratory Technology		1+2	
MLT401	Medical Laboratory Management Skills		2+1	
MLT402	Fundamentals of Infection Control		1+1	
MLT405	Systemic Diagnostic Bacteriology		2+1	
MLT410	Cytology and Cytogenetics		2+1	
MLT207	<b>Medical Microbiology-I (For None-MLT, None OT, None 2yrs etc Medical Tech)</b>		2+1	
MLT216	<b>Hematology-II (For None-MLT, None OT, None 2yrs etc Medical Tech)</b>		2+1	<b>Hematology-I</b>
MLT499	Research Project		6+0	
MLT490	Seminar		1+0	
MLT408	Medical Sociology		3+0	
MLT409	Bio and bioethics		3+0	
MLT217	<b>Medical Microbiology-II (For None-MLT, None OT, None 2yrs etc Medical Tech)</b>		2+1	<b>Medical Microbiology-I</b>
	<b>Total Credit Hours</b>		<b>55+23</b>	