

WEST BENGAL STATE COUNCIL OF TECHNICAL EDUCATION

**Proposed Curriculum Structure For Diploma in
Medical Laboratory Technology**

Part-II & Part-III

(3rd, 4th, 5th & 6th Semester)

[Modification of Course Curriculum Structure & Syllabus of Part-II and Part-III of the
Diploma of Engineering in Medical Laboratory Technology]

March'2014

**PROPOSED CURRICULUM STRUCTURE FOR PART-II (2ND YEAR) OF THE
FULL-TIME DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY**

West Bengal State Council of Technical Education													
Course : Diploma in Engineering													
Duration of the Course: 3 years (6 semester)													
Branch Name: MEDICAL LABORATORY TECHNOLOGY							Branch Code : MLT						
Third Semester													
Teaching and Examination Scheme													
Subject	Sl. No	Subject of Study	Subject Code	Credit	Contact Periods /Week			Evaluation Scheme					
					L	TU	PR	Internal			ESE	Total Marks	
								TA	CT	PR			PR
Theoretical	1	Human Anatomy	MLT 301	3	3			10	20			70	100
	2	Human Physiology	MLT 302	3	3			10	20			70	100
	3	Hematology and Body Fluids	MLT 303	3	3			10	20			70	100
	4	Biomedical Instrumentation-I	MLT 304	3	3			10	20			70	100
	5	Basic Electrical & Electronics	MLT 305	2	2	1		10	20			70	100
	6	Computer Programming in C	MLT 306	3	3	1		10	20			70	100
Practical	7	Human Anatomy Lab.	MLT P307	2			3			25	25		50
	8	Hematology and Body Fluids Lab.	MLT P308	2			4			50	50		100
	9	Basic Electrical & Electronics Lab.	MLT P309	2			3			25	25		50
	10	Computer Programming in C Lab.	MLT P310	1			2			25	25		50
	11	Professional Practice-I	MLT P311	1			1			25			25
TOTAL:				25	17	2	13	60	120	150	125	420	875

Fourth Semester													
Teaching and Examination Scheme													
Subject	Sl. No	Subject of Study	Subject Code	Credit	Contact Periods /Week			Evaluation Scheme					
					L	TU	PR	Internal			ESE	Total Marks	
								TA	CT	PR			PR
Theoretical	1	Clinical Biochemistry & Biophysics	MLT 401	3	3	1		10	20			70	100
	2	Serology & Biopsy	MLT 402	2	2			10	20			70	100
	3	Biomedical Instrumentation-II	MLT 403	4	4			10	20			70	100
	4	Medical Techniques	MLT 404	2	2			10	20			70	100
	5	Analog Electronics	MLT 405	3	3			10	20			70	100
Practical	6	Clinical Biochemistry & Biophysics Lab	MLT P406	2			3			50	50		100
	7	Serology & Biopsy Lab	MLT P407	1			2			25	25		50
	8	Biomedical Instrumentation-II Lab	MLT P408	2			3			50	50		100
	9	Medical Techniques Lab	MLT P409	2			3			25	25		50
	10	Analog Electronics Lab	MLT P410	2			3			25	25		50
	11	Development of Life Skill-II	MLT P411	1			2			25	25		50
	12	Professional Practice-II	MLT P412	1			1			25			25
TOTAL:				25	14	1	17	50	100	225	200	350	925

Student Contact Hours per Week: **32 + 1 (for Library)**

Duration of Theory and Practical Period: **60 minutes each.**

L-Lecture, TU-Tutorial, PR- Practical, TA-Teacher's Assessment, CT- Class Test, ESE- End Semester Exam

**PROPOSED CURRICULUM STRUCTURE FOR PART-III (3RD YEAR) OF THE
FULL-TIME DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY**

West Bengal State Council of Technical Education													
Course : Diploma in Engineering													
Duration of the Course: 3 years (6 semester)													
Branch Name: MEDICAL LABORATORY TECHNOLOGY						Branch Code : MLT							
Fifth Semester													
Teaching and Examination Scheme													
Subject	Sl. No	Subject of Study	Subject Code	Credit	Contact Periods			Evaluation Scheme					
					/Week			Internal			External	ESE	Total Marks
					L	TU	PR	TA	CT	PR	PR		
Theoretical	1	Clinical Microbiology	MLT 501	3	3			10	20			70	100
	2	Biomedical Instrumentation-III	MLT 502	3	3			10	20			70	100
	3	Radiography Techniques	MLT 503	2	2			5	10			35	50
	4	Electrical & Electronics Measurement	MLT 504	2	2	1		5	10			35	50
	5	Digital Logic Design	MLT 505	3	3			10	20			70	100
	6	Hospital & Industrial Management	MLT 506	2	2			5	10			35	50
Practical	7	Clinical Microbiology Lab	MLT P507	1			2			25	25		50
	8	Biomedical Instrumentation-III Lab	MLT P508	2			3			50	50		100
	9	Radiography Techniques Lab	MLT P509	2			3			25	25		50
	10	Electrical & Electronics Measurement Lab	MLT P510	1			2			25	25		50
	11	Digital Logic Design Lab	MLT P511	1			2			25	25		50
	12	Project & Entrepreneurship Development	MLT P512	2			3			50			50
	13	Professional Practice-III	MLT P513	1			1			50			50
TOTAL:				25	15	1	16	45	90	250	150	315	850

Sixth Semester													
Teaching and Examination Scheme													
Subject	Sl. No	Subject of Study	Subject Code	Credit	Contact Periods			Evaluation Scheme					
					/Week			Internal			External	ESE	Total Marks
					L	TU	PR	TA	CT	PR	PR		
Theoretical	1	Installation, Maintenance of Medical Equipment	MLT 601	3	3			10	20			70	100
	2	Advanced Biomedical Engineering.	MLT 602	3	3	1		10	20			70	100
	3	Micoprocessor & Microcontroller	MLT 603	3	3	1		10	20			70	100
	4	Elective (any one):	MLT 604	3	3	1		10	20			70	100
	i	Biomaterials	MLT 604-i										
	ii	Tissue Engineering	MLT 604-ii										
	iii	Artificial Organ and Rehabilitation Engineering.	MLT 604-iii										
Practical	5	Installation, Maintenance of Medical Equipment Lab.	MLT P605	2			3			25	25		50
	6	Advanced Biomedical Engineering. Lab	MLT P606	2			3			25	25		50
	7	Micoprocessor & Microcontroller Lab	MLT P607	2			3			25	25		50
	8	Project & Entrepreneurship Development	MLT P608	4			6			25	75		100
	9	General Viva-Voce	MLT P609	2						25	25		50
	10	Professional Practice-IV (Seminar)	MLT P610	1			2			50			50
TOTAL:				25	12	3	17	40	80	175	175	280	750

Student Contact Hours per Week: **32 + 1 (for Library) ;**

Duration of Theory and Practical Period: **60 minutes each.**

L-Lecture, TU-Tutorial, PR- Practical, TA-Teacher's Assessment, CT- Class Test, ESE- End Semester Exam.

GROSS SUMMARY OF

PROPOSED CURRICULUM STRUCTURE OF PART-II & PART-III FOR THE FULL-TIME DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY

West Bengal State Council of Technical Education											
Course : Diploma in Engineering											
Duration of the Course: 3 years (6 semester)											
Branch Name: MEDICAL LABORATORY TECHNOLOGY Branch Code : MLT											
Third to Sixth Semester											
Teaching and Examination Scheme											
Sl. No	PART	Credit	Contact Periods/Week			Evaluation Scheme					
			L+TU +PR	Lib.	Total	Internal			External	ESE	Total Marks
						TA	CT	PR	PR		
1	Part-II	50	32	1	33	110	220	375	325	770	1800
2	Part-III	50	32	1	33	85	170	425	325	595	1600
TOTAL		100				195	390	800	650	1365	3400
		100	33			585		1450		1365	3400

- Lib – Library