# M. Sc. MEDICAL LABORATORY TECHNOLOGY

PG & RESEARCH DEPARTMENT OF ADVANCED ZOOLOGY AND BIOTECHNOLOGY

### RESTRUCTURED CBCS CURRICULUM EFFECTIVE FROM 2016-17



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI 600 034

#### M. Sc., MEDICAL LAB TECHNOLOGY

# P. G RESEARCH DEPARTMENT OF ADVANCED ZOOLOGY AND BIOTECHNOLOGY

#### LOYOLA COLLEGE (AUTONOMOUS), CHENNAI 600 034

#### Minutes of the Board of Studies meeting

Dear chairperson and respected members of the council,

The meeting of the **Board of studies for M. Sc Medical Lab Technology was held on Friday, 05**<sup>th</sup> **February 2016, at 2.00 pm** in the Department of Advanced Zoology and Biotechnology. Besides the faculty, **Dr. R. Ravindran,** the University nominee, **Dr. S. Subramanian & Dr. R. Gayathri, S**ubject Experts and Dr. **K. Selvakumar,** Alumnus and Industrial Representative were present and the board discussed and approved the revised syllabi to be offered in I, II, III and IV semesters.

The following modifications shall be made from 2016 batch onwards.

Hospital management to be shifted from III to II semester

Research methodology & bioethics shall be offered as ID (Inter-disciplinary) paper in semester III

New paper on Molecular biology and human genetics to be offered in III semester

Stem cell technology to be offered as elective paper in Semester III

Fluid analysis and human disorders paper shall be renamed as clinical pathology

Histopathology and modern diagnostics paper shall be renamed as Histopathology and cytology

Internships- One credit shall be allotted for summer training program, internship I and internship II each.

Internship II and rural medical camp shall be introduced in III semester.



## **LOYOLA COLLEGE**

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## LOYOLA COLLEGE (AUTONOMOUS), CHENNAI.

## M.Sc., MEDICAL LAB TECHNOLOGY

P.G. & RESEARCH DEPARTMENT OF ADVANCED ZOOLOGY & BIOTECHNOLOGY

The following members were present for the **Board of Studies meeting** held on **05**<sup>th</sup> **February 2016** at 2.00 pm in the Department of Advanced Zoology and Biotechnology, Loyola College, Chennai.

S. No	Name	Institution	Signature
1	Dr. R. Ravindran University Nominee	Associate Professor & Head Department of Physiology, Institute of Basic Medical Sciences, Taramani Campus, University of Madras, Chennai.	\$ 300h
2	<b>Dr S. Subramanian</b> Subject Experts	Principal Sree Balaji College of Physiotherapy, Velachery Main Road, Palikaranai, Chennai – 100.	5 Notars 05/02/16
3	<b>Dr. R. Gayathri</b> Subject Experts	Microbiologist and Molecular Biologist Lister Metropolis Laboratory Nungambakkam, Ch: 34	R. Grayattai 5/2/16
4	<b>Dr. K. Selvakumar</b> Industrial Representative	NABL Coordinator, Billroth Hospitals, Department of Laboratory Services, Chennai- 600 030.	K. Swall
5	<b>Dr J. M. V. Kalaiarasi</b> HoD & Chairman	Associate Professor & Head, Dept. of Advanced Zoology and Biotechnology, Loyola College, Chennai-34.	Ommodaia
6	Sr. Adaikalam Mary Alumnus and Industrial Representative	Director, Diagnostic Laboratories, St. Isabel Hospital, Mylapore, Chennai.	



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7	Dr D. Robert Selvam Coordinator	Assistant Professor & Coordinator Medical Lab Technology	
8	Dr S. Anand Prasad Member	Medical Officer, Loyola Health Centre, Loyola College (Autonomous), Chennai.	- MJ S12116
9	<b>Dr M. Chandrasekar</b> Member	Assistant Professor, Medical Lab Technology	505/02/16
10	Dr D. Carol Member	Assistant Professor, Medical Lab Technology	p. M. E. /16
11	<b>Dr. Tanya Pereira</b> Member	Assistant Professor, Medical Lab Technology	Jones Perra 1/16
12	Mr. Prathpavarma Digala (14-PML-19) Student Representative	II M.Sc Medical Lab Technology. Dept. of Advanced Zoology and Biotechnology	Bratafratura 1)

Proposal: Restructured curriculum for M.Sc. Medical Laboratory Technology.

### M.Sc., MEDICAL LAB TECHNOLOGY RESTRUCTURED CBCS CURRICULUM - TEMPLATE EFFECTIVE FROM 2016-17

MC-Major Core, **ES**-Elective Subject, **ID**-Interdisciplinary, **SSP**-Self Study Paper, **LST**-Life Skills Training, **LEAP**-Loyola Extension Awareness Programme, +h — Outside Class Hours, **STP**- Summer Training Programme.

➤ In addition to Summer Training Programme (STP), internship (120h outside class hours) in medical / paramedical industry during II and III semesters is mandatory.

\*Internship I : During semester II (Nov to March= 120h) out side class hours

\*Internship II : During semester III (July to Oct= 120h + Rural Medical Camp) outside class hours

# M.Sc., MEDICAL LAB TECHNOLOGY

### RESTRUCTURED CBCS CURRICULUM - EFFECTIVE FROM 2016-17 SEMESTER-I

Course	C	Н	Credits (h per week)	CA (50)	SEM (50)	Aggregate (100)
MAJOR CO	RE (M	C) PAPE	ERS			
Fundamentals of Medical Laboratory	3	5		./	./	./
Technology				•	•	V
Human Anatomy and Physiology	3	5		✓	✓	✓
Clinical Biochemistry	3	5	20C	✓	✓	✓
Clinical Biochemistry lab course	4	5	(30h)	✓	✓	✓
Haematology	3	5	-	✓	✓	✓
Haematology lab course	4	5		✓	✓	✓
ACT HOURS AND CREDITS	20	30				
Loyola Extension Awareness Programme (LEAP)			Contd in II sem			
TOTAL CONTACT HOURS AND CREADITS		30				
	MAJOR CO Fundamentals of Medical Laboratory Technology Human Anatomy and Physiology Clinical Biochemistry Clinical Biochemistry lab course Haematology Haematology lab course ACT HOURS AND CREDITS sion Awareness Programme (LEAP)	MAJOR CORE (M Fundamentals of Medical Laboratory Technology Human Anatomy and Physiology Clinical Biochemistry 3 Clinical Biochemistry lab course Haematology Haematology 4 ACT HOURS AND CREDITS 20 Outs sion Awareness Programme (LEAP)	MAJOR CORE (MC) PAPE Fundamentals of Medical Laboratory Technology Human Anatomy and Physiology Clinical Biochemistry 3 5 Clinical Biochemistry 3 5 Clinical Biochemistry 4 5 Haematology Haematology Haematology 4 5 ACT HOURS AND CREDITS 20 30 Outside class hours	MAJOR CORE (MC) PAPERS  Fundamentals of Medical Laboratory 3 5 Technology Human Anatomy and Physiology 3 5 Clinical Biochemistry 3 5 Clinical Biochemistry 4 5 Haematology 3 5 Haematology 3 5  Carry Clinical Biochemistry 4 5 Haematology 4 5  ACT HOURS AND CREDITS 20 30  Sion Awareness Programme (LEAP)  Outside class hours in II sem	MAJOR CORE (MC) PAPERS  Fundamentals of Medical Laboratory Technology Human Anatomy and Physiology Clinical Biochemistry Clinical Biochemistry lab course Haematology Haematology Haematology Technology  Clinical Biochemistry Technology Technol	MAJOR CORE (MC) PAPERS  Fundamentals of Medical Laboratory Technology 3 5

#### SEMESTER -II

Code	Course	C	Н	Credits (h per week)	CA (50)	SEM (50)	Aggregate (100)
	MAJ	OR C	ORE (M	IC) PAPEI	RS		
16PML2MC01	Medical Microbiology	5	6	20C	✓	✓	✓
16PML2MC02	Microbiology lab course	5	6	(24h)	✓	✓	✓
16PML2MC03	Immunology	5	6		✓	✓	✓
16PML2MC04	Serology and Blood Bank lab course	5	6		✓	✓	✓
	ELECTI	VE SU	JBJECT	(ES) PAPE	R		
16PML2ES01 16PML2ES02	Hospital Management (OR) Community Medicine and Epidemiology	3	4	3C (4h)	✓	✓	✓
16PML2MC06	LIFE SKILL TRAINING (LST)	2	2+2	2C (2h+2h)			✓
LEAP (RURAL	CAMP)	3		3C			✓
TOTAL CONT.	ACT HOURS AND CREDITS		30+2	25+3			
16PML2TP01	INTERNSHIP I	1	+120h	(outside cl	ass hour	rs)	✓

#### **SUMMER VACATION**

16PML3TP01 SUMMER TRAINING PROGRAM	1C	Outside class hours
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#### SEMESTER -III

Code	Course	C	Н	Credits (h per week)	CA (50)	SEM (50)	Aggregate (100)
	MAJOR CORE	(MC	) PAPE	RS			
16PML3MC01	Molecular Biology and Human Genetics	4	5		✓	✓	✓
16PML3MC02	Clinical Pathology	3	5	15C (20h)	✓	✓	✓
16PML3MC03	Urine Analysis, Stool Examination Lab Course	4	5		✓	✓	✓
16PML3MC04	Seminal and Sputum Analysis Lab Course	4	5		✓	✓	✓
	SUBJECT ELECT	IVE (	SE) PAF	PER			
16PML3ES01	Stem cell technology(OR)	3	4	3C (4h)	<b>✓</b>	✓	./
16PML3ES02	Forensic Science and Toxicology	3	4				•
	INTERDISCIPLINARY	(ID) F	APER (	with Dept. of	Biotechr	ology)	
16PML3ID01	Research Methodology and Bioethics	5	6	5C (6h)	✓	✓	✓
SSP	SELF STUDY PAPER (SSP)	2	Outsi de Class Hour s	2C (2h+2h)			✓
TOTAL CONT	ACT HOURS AND CREDITS	23 +2	30	23C+2C 30h+2h			
16PML3TP02	INTERNSHIP II & RURAL MEDICAL CAMP	1	+120 h (outside class hours)				✓

#### SEMESTER -IV

Code	Course	C	Н	Credits (h per week)	CA (50)	Sem (50)	Aggregate (100)
MAJOR COR	E (MC) PAPERS						
16PML4MC01	Non Invasive Techniques	5	5		✓	✓	✓
16PML4MC02	Separation Techniques and Pharmaceutical Chemistry	5	6	24C (30h)	✓	✓	✓
16PML4MC03	Histopathology and Cytology	4	5		✓	✓	✓
16PML4PJ01	Project and Dissertation	10	14		✓	✓	✓
TOTAL CONTA	ACT HOURS AND CREDITS	24	30				
Grand Tota	ıl		120h (90C	+ 2# +6C+2C+2	2 <b>C</b> )		