

Total number of hours in entire course

Module	Theory and Demonstration Time in hours	Practical time In hours	Total time in hours
1. Introduction to Medical Laboratory Technology	4	14	18
2. Laboratory Management Histopathology and Cytology	161	252	413
3. Haematology and Blood Bank serology	122	118	240
4. Medical Microbiology	188	174	362
5. Parasitology and Medical Entomology	58	69	127
6. Chemical Pathology	192	228	420
Total number or hours	733	849	1582

Detailed Course contents of the Diploma in Medical Laboratory Technology

Module	Theory and Demonstration Time in hours	Practical time In hours	Total time in hours
1. Introduction to Medical Laboratory Technology	4	14	18
2. Laboratory Management Histopathology and Cytology	161	252	413
3. Haematology and Blood Bank serology	122	118	240
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Module 01 – Introduction to Medical Laboratory Technology

Unit	Theory time in hours	Practical time In hours	Total time In hours
1. Introduction to Basic Human Biology	01	-	01
2. Basic Human Biology	11	-	11
3. Introduction to IT	02	04	06
Total	14	04	18

Module 02 – Laboratory Management & Histopathology

Unit	Theory time in hours	Practical time In hours	Total time In hours
Laboratory Management			
1. General Administration	07	-	07
2. Organization of a Medical Laboratory	03	-	03
3. Indents & Supplies	17	09	26
4. Laboratory Equipment	38	68	106
5. Chemicals & Reagents	07	18	25
6. Records & Registers	05	-	05
7. Laboratory waste Management and Decontamination	14	42	56
8. Laboratory Hazards & Accidents	08	09	17
9. Collection & receipt of specimens	04	06	10
10. Statistics & their application	04	03	07
11. Animal house technology	03	03	06
Histopathology			
1. Basic Histology & Histopathology	06	03	09
2. Collection & Processing of Tissues, Microtomy, Staining	26	84	110
3. Special Procedures in Histopathological Techniques	089	-	08
4. Cytology	09	11	20
Total	159	256	415

Module 03 – Haematology & Blood Bank serology

Unit	Theory time in hours	Practical time In hours	Total time In hours
1. Introduction, composition of blood & Haemopoiesis	05		05
2. Collection of Blood and handling	03	03	06
3. Cell Morphology, Proliferation & Maturation	04	03	07
4. Cell counting	04	12	16
5. Blood film & Marrow film preparation	01	03	04
6. Staining of blood & Bone marrow films	02	06	07
7. Differential count	03	06	09
8. Morphology of blood cells in health and disease	06	03	09
9. Haemoglobin & its estimation	04	06	10
10. Haematocrit	02	03	05
11. Automation of indices	03		03
12. Anaemias	21	18	39
13. Reticulocyte count	02	03	05
14. Osmotic Fragility test	02	03	05
15. ESR	02	03	05
16. Elementary Genetics	03		03
17. Bone Marrow biopsy & myelogram	02		02
18. Laboratory techniques	03		03
19. Leukaemias	03	06	09
20. Myeloproliferative Diseases	03		03
21. Paraproteinaemia	02	01	03
22. Lymphoma	01		01
23. Autoimmune disorders	02	03	05
24. Cytochemistry	03	06	09
25. Immunochemistry	03		03
26. Haemorrhagic Disorders	13	15	28
Blood Bank Serology			
1. Blood Grouping Systems	03	03	06
2. Screening of Donors	03	03	06
3. Component preparation & storage	02	03	05
4. Compatibility & blood transfusion	02	03	05
5. Transfusion reactions	02		02
6. Haemolytic disorders of New Born	03		03
7. Blood transfusion	02		02
8. Screening of Donors	03	03	06
Total	122	118	240

Module 04 – Medical Microbiology

Unit	Theory time in hours	Practical time In hours	Total time In hours
1. General Bacteriology	29	57	86
2. Systemic Bacteriology	62	68	130
3. Medical Mycology	11	-	11
4. Mycobacteria	08	06	14
5. Clinical and Applied Microbiology	24	-	24
6. Medical Virology	28	12	40
7. Sexually Transmitted Disease	12	03	15
8. Public Health Bacteriology	05	09	14
9. Applied Immunology	03	12	15
10. Antibiotic Sensitivity Test	03	04	07
11. Quality Assurance	03	03	06
	188	174	362

Module 05 – Parasitology & Medical Entomology

Unit	Theory time in hours	Practical time In hours	Total time In hours
1. Introduction and Classification	02	-	02
2. Collection and storage	01	01	02
3. Classification of Intestinal Protozoa	04	06	10
4. Laboratory Techniques in Parasitology	-	21	21
5. Ciliates and flagellates	04	03	07
6. Helminths and Nematodes	06	06	12
7. Tissue Nematodes	05	03	08
8. Malarial Parasites	04	06	10
9. Tissue Protozoa- Toxoplasma	02	04	06
10. Blood and Protozoa, Blatocystis hominis	03	03	06
11. Cestodes	03	03	06
12. Blood Flukes	01	03	04
13. Other Flukes	01	02	03
14. AIDS related Protozoa	02	01	03
15. Immunodiagnosis in Parasitology	01	02	03
16. Parasitic Zoonosis	02	-	02
17. Snakes	01	01	02
Medical Entomology			
1. Introduction	02	-	02
2. Mosquitoes	06	-	06

3. Flies, Fleas, Lice, Bugs, Ticks, Mites	08	-	08
4. Practice	-	04	04
Total	58	69	127

Module 06 – Chemical Pathology

Unit	Theory time in hours	Practical time In hours	Total time In hours
1. Basic Chemistry	09	09	18
2. Basic Laboratory Equipment	03	08	11
3. Measurement of pH	10	08	18
4. Volumetric analysis	05	08	13
5. Balances	04	06	10
6. Spectrophotometer	08	06	14
7. Laboratory Samples	07	06	13
8. Macromolecules	10	06	16
9. Urine analysis	15	08	23
10. Stools analysis	04	16	20
11. Seminal fluid analysis	06	06	12
12. Cerebro spinal fluid	07	10	17
13. Glucose estimation	13	24	37
14. Chemically important blood tests	29	80	109
15. Blood enzymes	23	10	33
16. Flame photometry	09	04	13
17. Liver function tests	03	-	03
18. Acid base balance & electrolytes	05	-	05
19. Laboratory diagnosis diabetes	03		03
20. Serum Protein electrophoresis	04	-	04
21. Validation of biochemical results	02	-	02
22. Quality control	03	03	06
23. Automation	02	02	04
24. Endocrinology & tumor markers	04	02	06
25. Immunochemical techniques	03	03	06
26. Chromatography	01	03	04
Total	192	228	420

During the second year of the training programme the students are assigned to various clinical laboratories in the National Hospital, Teaching Hospitals, District General Hospitals and specialized Institutes in Sri Lanka to gain the practical experience.