

B.Sc. in Medical Laboratory Technology
I YEAR
GENERAL PATHOLOGY AND GENERAL MICROBIOLOGY
MLT 101

Course Outcome:

- To provide general insight into the history and basics of General Pathology.
- To Impart knowledge about general outline of pathology.
- To provide brief knowledge about basic procedure done in pathology laboratory.
- To provide knowledge of bacteria, Sterilization etc.

HEMATOLOGY
MLT102

Course Outcome:

- To prepare the students for understanding of composition of blood.
- Students will learn basic haematological techniques. Students must be able to collect, preserve and process blood samples.
- Students will be able to perform routine investigations in clinical hematology laboratories.

• \

FUNDAMENTAL OF ANATOMY AND PHYSIOLOGY
MLT 103

Course Outcome

- Students will be able to learn the terminology of the subject.
- To Provide basic knowledge of cells, tissues, blood and to understand anatomy and physiology of human body.
- This subject will develop an understanding of the structure and function of organs and organ systems in normal human body.

BASICS OF BIOCHEMISTRY, CLINICAL PATHOLOGY, INSTRUMENTS AND REAGENTS

MLT104

Course Outcome:

- To provide general insight and basic knowledge of basics of biochemistry.
- The students will be given the basic of knowledge of chemistry and metabolism of various metabolites.

B.Sc. in Medical Laboratory Technology II YEAR BLOOD BANK PROCEDURE AND HEMOGLOBINOPATHIES MLT 201

Course Outcome:

- The subject will provide detailed knowledge about Blood Bank Procedure.
- The students will be able to perform all procedures of blood banking.
- The students will be able to maintain blood bank records & issue blood.

ENDOCRINOLOGY, TUMOR, AND CANCER MARKERS MLT 202

Course Outcome:

- To provide knowledge about hormones.
- To provide knowledge about tumor markers and their assessment.

CLINICAL BIOCHEMISTRY MLT 203

Course Outcome

- To identify the indications for basic procedures and perform them in appropriate manner.
- Subject will provide complete procedural knowledge used in Clinical Biochemistry.

- Pertains knowledge regarding how to analyze various clinical samples for estimation of clinical biochemistry.
- To provide knowledge about advance instrumentation and procedural knowledge of clinical biochemistry.

(By Colorimeter / Spectrophotometer)

1. Blood urea estimation
2. Serum creatinine estimation
3. Serum uric acid estimation
4. Serum total protein estimation
5. Serum albumin estimation
6. Serum globulin estimation
7. Serum Bilirubin total estimation

8. Serum Bilirubin direct estimation
9. Serum GOT (AST) estimation
10. Serum GPT (ALT) estimation
11. Alkaline phosphatase estimation
12. Acid phosphatase estimation
- 13 Blood Glucose Estimation
- 14 Serum amylase estimation
- 15 Total cholesterol estimation
- 15 HDL cholesterol (direct) estimation.
- 16 LDL cholesterol (direct) estimation
- 17 Triglyceride estimation
- 18 Serum sodium estimation
- 19 Serum potassium estimation
- 20 Serum chloride estimation
- 21 CK-NAC estimation

IMMUNOLOGY,SEROLOGY,AND PARASITOLOGY

MLT 204

Course Outcome

- To provide knowledge about Immune reactions, response etc.
- To provide brief knowledge of parasites involved in human infections.
- To understand the life cycle and lab diagnosis of various important human parasites.

B.Sc. in Medical Laboratory Technology III YEAR

HISTOPATHALOGY AND CYTOLOGY TECHNIQUES MLT 301

Course Outcome:

- To provide knowledge about Histopathology
- To provide knowledge of slide preparation and staining of various cytological specimen.
- To train students in testing of various histological specimen in addition to microtomy.

COAGULATION STUDIES

MLT 302

Course Outcome:

- To provide brief introduction of coagulation system and factors involved in coagulation.
- To provide knowledge about diagnosis of coagulation factors deficiencies.

SYSTEMIC BACTERIOLOGY,MYCOLOGY AND VIROLOGY

MLT 303

Course Outcome:

- To provide information about the different type of bacterial culture procedures and test used for identification of medically important bacteria.
- To identify the indications for basic procedures, culture media and their preparations.
- To provide brief introduction of general characteristics of medically important fungi.
- To provide laboratory diagnosis of various medically important fungi. • To provide complete procedural investigation procedures of fungi causing human diseases
- To impart basic knowledge of disease causing viruses.
- To provide brief introduction of diagnostics procedures of disease causing viruses.

**QUALITY LABORATORY MANAGEMENT AND AUTOMATION
MLT 304**

Course Outcome:

- To demonstrate distinctive, meritorious and high quality practice that leads to excellence.
- To demonstrate the quality of being assumable for all actions to service users.