BSc MLS	
1st SEMESTER	
Course Name: ESSENTIAL BIOLOGY **(**BMLS101-18)	
At the end of the course, the student will be able to:	
CO1	Scope of biology
CO2	Scope of Medical lab sciences
CO3	Explain the structures and functions of cells
CO4	Explain the concept of nucleic acids and heredity
Course Name: GENERAL MICROBIOLOGY **(**BMLS102-18)	
CO1	History and scope of microbiology
CO2	Basic concepts of microbiology
CO3	Distinguish between aseptic and sterilization techniques
CO4	Growth and culturing of various medias
Course Name: BASICS OF BIOCHEMISTRY **(**BMLS103-18)	
CO1	To introduce the fundamental role of Medical lab technologist, ethics, responsibility and safe handling and cleaning of general laboratory glassware and equipments
CO2	To understand the preparation of distilled water and interconversion of units of measurements.
CO3	To introduce fundamental concepts of calibration of volumetric apparatus, and concept of pH.
CO4	To develop the understanding of volumetric analysis, preparation of reagents and concept of osmosis.

2nd SEMESTER	
Course Name: Systemic Bacteriology **(**BMLS201-18**)**	
CO1	To introduce the concept of bacterial cultures
CO2	Apply the fundamental principles of staining.
CO3	To interpret various biochemical tests
CO4	To introduce various characteristics of bacteria's
Course Name: Biochemical Metabolism **(**BMLS202-18**)**	
CO1	To introduce the fundamental concept of carbohydrates
CO2	To introduce the fundamental concept of proteins
CO3	To introduce the fundamental concept of lipids and fats
CO4	To introduce the fundamental concept of enzymes and kinetics
Course Name: HUMAN ANATOMY AND PHYSIOLOGY- I **(**BMLS203-18**)**	
CO1	Students will be able to learn the terminology of the subject and basic knowledge of cells the structure and function of organs and organ systems and body fluids
CO2	Students will be able to learn the terminology of the subject and basic knowledge of cells the structure and function of tissues
CO3	Students will be able to learn the terminology of the subject and basic knowledge of cells the structure and function of skeletal muscles
CO4	Students will be able to learn the terminology of the subject and basic knowledge of cells the structure and function of sense organs
3rd SEMESTER	
Course Name: BASIC HAEMATOLOGY & HAEMATOLOGICAL TECHNIQUES-I **(**BMLS301-18**)**	
CO1	To introduce the basics of hematology
CO2	To introduce the basic concept of blood as a connective tissue
CO3	To introduce the concept of smear formation by various stains
CO4	To introduce the concept of various blood films
Course Name: Analytical Biochemistry **(**BMLS302-18**)**	
CO1	To introduce the basics of photometry
CO2	To introduce the basic concept of spectroscopy
CO3	To introduce the basic concept of chromatography
CO4	To introduce the basic concept of electrophoresis
Course Name: Human Anatomy & Physiology - II **(**BMLS303-18**)**	
CO1	Students will be able to learn the terminology of the subject and basic knowledge of cells the structure and function of organs and organ systems and body fluids
CO2	Learn about physiology of organs system
CO3	How the functions are performed by different organs
CO4	Learn about coordination among various organ system

Course Name: Applied Bacteriology **(**BMLS307-18**)**	
CO1	Students will be able to learn about laboratory diagnosis of various infective syndromes
CO2	The student will be able to learn Antibiotic Susceptibility Testing
CO3	Learn about bacteriological examination of air
CO4	How is the sterility testing of I/V fluids is done, students will learn.
CO5	Learn about nosocomial infections and its control.

4TH SEMESTER	
Course Name: Basic Haematological Techniques – II **(**BMLS402-18**)**	
CO1	To introduce the concept of hemoglobin
CO2	To introduce the concept of hemostasis
CO3	To introduce the concept of coagulation factors and theories
CO4	To introduce the concept of screenings of coagulation tests
Course Name: Clinical Biochemistry – 1 **(**BMLS403-18**)**	
CO1	To introduce the concept of quality control
CO2	To introduce the concept of various markers
CO3	To introduce the concept of various instruments
CO4	To introduce the concept of ELISA
Course Name: Immunology and Mycology **(**BMLS407-18**)**	
CO1	To introduce the concept of immunology
CO2	To introduce the concept of antigen - antibody
CO3	To introduce the concept of serological tests
CO4	To introduce the concept of vaccines.

5TH SEMESTER	
Course Name: Applied Haematology-1 **(**BMLS501-18**)**	
CO1	To introduce the concept of quality assurance
CO2	To introduce the basic concept of automation in hematology
CO3	To introduce the concept of red blood cells and white blood cells disorders
CO4	To introduce the concept of urine testing
Course Name: Medical Laboratory Management **(**BMLS503-18**)**	
CO1	To introduce the concept of ethics in laboratory
CO2	To introduce the concept of sample accountability
CO3	To introduce the concept of biomedical waste
CO4	To introduce the concept of audit in laboratories
Course Name: HISTOTECHNOLOGY-I **(**BMLS504-18**)**	
CO1	students will be made aware of terminology used in histotechnology, various instruments and their maintenance and also learn the processing of various samples for histopathological investigations
CO2	various instruments and their maintenance
CO3	Basic concepts about routine methods of examination of tissues
CO4	Automation in histotechnology and tissue processing ,staining
Course Name: - CLINICAL BIOCHEMISTRY--II **(**BMLS505-18**)**	
CO1	students will be made aware of automation in biochemistry
CO2	Basic concepts about routine methods of examination of gastric analysis
CO3	To introduce the concept of thyroid
CO4	To introduce the concept of various markers

6TH SEMESTER	
Course Name: Applied Haematology – II **(**BMLS601-18**)**	
CO1	To introduce the concepts of anemia
CO2	To introduce the concepts of laboratory diagnosis of various diseases
CO3	To introduce the concepts of hematological disorders
CO4	To introduce the concepts of radiation hazards
Course Name: Blood Banking **(**BMLS603-18**)**	
CO1	To introduce the concepts of blood banking
CO2	To introduce the concepts of Antisera
CO3	To introduce the concepts of blood transfusion
CO4	To introduce the concepts of quality control in blood banking
Course Name: PARASITOLOGY AND VIROLOGY **(**BMLS604-18**)**	
CO1	To introduce the concepts of parasitology
CO2	To introduce the concepts of lab diagnosis
CO3	To introduce the concepts of virology
CO4	To introduce the concepts of viral diagnosis
Course Name: - HISTOTECHNOLOGY – II & Cytology **(**BMLS605-18**)**	
CO1	The students will learn about various staining procedures for demonstration of different substances & various cytological investigations..
CO2	The students will learn about testing of various cytological specimens
CO3	The students will learn about exfoliative procedures
CO4	The students will learn about procedures for tissue typing and cancer immunology