

MLSP 208 General and Diagnostic Virology 2.0; 2 cr.

An introduction to virology covering the general characteristics of viruses, their classification, mode of transmission, pathogenesis, and the diseases they cause in man, is the focus of the first part of this course. The second part emphasizes viral diseases of public health importance, including their epidemiology, control, and possible prevention.

MLSP 211 Seminar 1.0; 1 cr.

A seminar in which students are trained to read recently published scientific papers in medical journals, summarize, and present the information. This process also involves discussion and critiques of the presented manuscripts.

MLSP 259 Diagnostic Serology 1.0; 1 cr.

An introduction to the principles of serologic reactions and laboratory techniques in the diagnosis of infectious diseases.

Below are descriptions of the required courses offered by several departments at the Faculty of Medicine: Biochemistry, Microbiology and Immunology, Pathology and Laboratory Medicine, and Physiology.

BIOC 255 Biochemistry for MLSP 45.0; 3 cr.

The course provides an overview of structure, function, and metabolism of basic biological micro/macro molecules; a general review of the genetic makeup; and emphasizes the clinical relevance by correlating disease to basic information. *The course is an introductory biochemistry course, offered to undergraduate students in the Medical Lab Sciences Program and related fields. Second semester.*

LABM 201/202 Clinical Chemistry I and II 2.0; 2 cr.

A pair of courses in which the main objective is to acquaint students with fundamentals of clinical chemistry, including various analytical procedures, instrumentation, and methods used for determination of clinical analyses. Correlation of laboratory results with clinical manifestation is also an integral part of these courses. These two courses cover all aspects of routine clinical chemistry testing, such as carbohydrates, electrolytes, acid-base balance, blood gases, nitrogen metabolites, proteins, enzymes, lipids and lipoproteins, and liver function.

LABM 210 Cytology and Histological Techniques 32.0; 2 cr.

A course that includes a series of lectures and demonstrations on cell biology, a review of normal histology of various human organs, a description of examples of pathological changes, lectures on techniques of tissue handling, and preparation and staining of sections and smears for cytological material. Members of the department and the Department of Human Morphology.

LABM 220 Clinical Chemistry and Endocrinology 0.128; 4 cr.

Practical experience in clinical chemistry and endocrinology. *Eight weeks.*

LABM 230 Clinical Hematology and Reception 0.128; 4 cr.

Practical experience in clinical hematology special procedures and reception area. *Prerequisite: MLSP 201 and MLSP 202.*

LABM 233 Genetics and Molecular Biology 2.0; 2 cr.

A course that includes an introduction to human genetics, comprising the structure and function of DNA and the classification of genetic disorders. Diagnostic techniques in human genetics (cytogenetics, biochemical, and molecular) will be covered, as well as molecular techniques applied in pathology and microbiology.

LABM 234 Special Topics/Techniques in Laboratory Medicine 2.0; 2 cr.
A course that provides theoretical knowledge in specialized topics including endocrinology, chromatography, toxicology, tumor markers, therapeutic drug monitoring, flowcytometry, molecular testing, advanced clinical microbiology, antimicrobial agents, blood banking and transfusion medicine, and total quality management.

LABM 235 Medical Mycology 1.0; 1 cr.
A course that covers the different kinds and types of fungi (yeast and mold). This course discusses their disease spectrum mode of infection, gross requirements, and cultural and non-cultural methods of identifications as well as antifungal drugs and susceptibility testing of fungi.

LABM 240 Clinical Microbiology 0.128; 4 cr.
Practical experience in clinical microbiology (aerobic and anaerobic bacteriology, mycobacteriology, mycology, and susceptibility testing). *Eight weeks. Prerequisite MLSP 203 and MLSP 204.*

LABM 250 Clinical Parasitology and Urinalysis 0.64; 2 cr.
Practical experience in clinical microscopy pertaining to parasitology, urinalysis, and spermogram. *Four weeks.*

LABM 260 Serology 0.64; 2 cr.
Practical experience in clinical immunology and serodiagnostic techniques. *Four weeks. Prerequisite MLSP 259.*

LABM 270 Blood Banking 0.64; 2 cr.
Practical experience in blood banking and transfusion medicine. *Four weeks. Prerequisite MLSP 207.*

LABM 280 Cytogenetics, Molecular Diagnostics and Histotechniques 0.64; 2 cr.
Practical experience in reception, cytogenetics, and histotechniques. *Four weeks.*

MBIM 223 Parasitology for MLS Students 39.39; 4 cr.
Second semester.

PHYL 246 Physiology for Nursing Degree Students and Undergraduates 48; 4 cr.

A course that outlines fundamental principles of human physiology and the mechanisms governing the function of different body organs. *Prerequisite: BIOC 246; BIOL 201 (or BIOL 210). Annually.*

Modes of Analysis	Languages (9)	Humanities (12)	Social Sciences (9)	Natural Sciences (14)	Quantitative Thought (3)	Major Courses
Lecture Course (9+12+9+14+3+33)	1. Required Arabic Course:(3) 2. Required English Courses: ENGL 203(3), 204(3)	1. PHIL 205 (3) 2. 3 electives (9)	1. HMPD 204(3) 2. HBED 203(3) 3. Elective (3)	1. BIOL 201(4) 2. CHEM 208(3) 3. PHYL 246(4) 4. BIOC 255(3)	1. EPHD 203(3)	MLSP 201(3), 202(3), 203(3), 204(4), 207(2), 208(2), 259(1) LABM 201(2), 202(2), 210(2), 233(2), 234(2), 235(1) MBIM 223(4)
Lab (3+1+5)				1. BIOL 201(4) 2. CHEM 209(2)	1. EPHD 203(3)	MLSP 203(3), MLSP 204(4), MBIM 223(4)
Seminar (1)						MLSP 211(1)
Practical Training (20)						LABM 220(4), 230(4), 240(4), 250(2), 260(2), 270(2), 280(2)