

# Medical Laboratory Technology Program

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Professor:	Ramia, Sami T.
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Faculty members in the Department of Pathology and Laboratory Medicine in the Faculty of Medicine also teach in the program.

The MLT program is designed to prepare students for a career in the profession of medical technology by acquiring theoretical knowledge and practical skills in various disciplines of the specialty. Besides presenting theoretical knowledge, the program is dedicated to training students in the reliable performance of physical, chemical, and biological tests by utilizing routine and automated techniques. In addition, students are trained to develop the ability to interpret generated laboratory results and hence contribute to the diagnosis of disease. Continuing one's education, and updating skills and knowledge, as well as medical professional ethics, are emphasized.

**MLTP 201                      Clinical Hematology I    3.0; 3 cr.**

A course that introduces students to fundamental concepts in hematology, including the development of blood cell elements, normal physiology of blood cells, and their disorders. This course focuses on anemia, with a special emphasis on diagnosis.

**MLTP 202                      Clinical Hematology II    3.0; 3 cr.**

A course that consists of lectures and demonstrations in hematology with emphasis on coagulation and hemostatic disorders, white blood cell anomalies, and leukemia.

**MLTP 203                      General Microbiology    2.2; 3 cr.**

A course that covers structure and morphology of micro-organisms, nutritional requirements and growth, sterilization and disinfection, introduction to microbial genetics, collection and handling of clinical specimens, culture techniques for clinical specimens and expected pathogens, antibiotic sensitivity testing, and assay.

**MLTP 204                      Systematic Bacteriology    2.4; 4 cr.**

A course that covers the characteristics of bacteria of medical importance with concentration on the diseases they cause, pathogenesis, mode of transmission, control and methods for isolation, identification, and interpretation of results.

**MLTP 207                      Immunology and Blood Banking    2.0; 2 cr.**

A course that consists of lectures in basic immunology, including types of immune responses, cells of the immune response, antigens, antibodies, and complement system, as well as basic principles in blood banking and transfusion medicine.

**MLTP 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.

**MLTP 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.

**MLTP 259 Diagnostic Serology 1.0; 1 cr.**

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

This program is in coordination with the Department of Pathology and Laboratory Medicine in the Faculty of Medicine. For descriptions of the remaining courses required in the MLTP program, see the section under the Department of Pathology and Laboratory Medicine.

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 200(4) 2. CHEM 208(3) 3. PHYS 246(4) 4. BIOG 255(3)	1. EPHD 203(3) 2. HMPD 206(0)	MLTP 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 200(4) 2. CHEM 209(2)	1. EPHD 203(3)	MLTP 203(3), MLTP 204(4), MBIM 223(4)
Seminar (1)						MLTP 211(1)
Practical Training (20)						LABM 220(4), 230(4), 240(4), 250(2), 260(2), 270(2), 280(2)