

MLT - MEDICAL LABORATORY TECHNOLOGY

MLT 105 1 credit hours (lecture: 1 | lab: 0)

Introduction to Health Care Issues

Course introduces field of health care, with focus on hospital and laboratory organization. Content includes professional ethics, legal and regulatory issues, communication skills and OSHA requirements.

Prerequisite: Admission to Phlebotomy Certificate program or MLT program.

Instruction Type: In-Person | Online

Term Typically Offered: Fall | Spring

MLT 106 2 credit hours (lecture: 1.5 | lab: 1.5)

Basic Skills in Medical Laboratory Technology

Course introduces basic medical laboratory. Content includes units on laboratory equipment, computers, laboratory safety, metric system, blood collection requirements for laboratory testing and phlebotomy.

Prerequisite: Admission to the MLT program.

Instruction Type: In-Person | Online

Fee: \$95

Term Typically Offered: Fall

MLT 107 4 credit hours (lecture: 3 | lab: 3)

Phlebotomy

Course provides in-depth study of current phlebotomy techniques. Focus is on skills necessary to properly obtain blood specimens for laboratory testing. Content includes safety precautions, collection equipment, venipuncture and skin puncture techniques, and special collection procedures.

Prerequisite: Admission to Phlebotomy Certificate program or MLT program or consent of program chair.

Instruction Type: In-Person | Online

Fee: \$60

Term Typically Offered: Fall | Spring

MLT 111 4 credit hours (lecture: 3 | lab: 3)

Hematology

Course stresses development of basic techniques and understanding of principles, procedures, and sources of error in hematology lab work. Combined lectures and laboratory sessions to teach basic techniques and to develop skills needed to work in hematology. Content includes the formed elements of blood, including erythrocyte, leukocyte and thrombocyte cell maturation; normal cell function, and basic concepts of methods used to detect normal and diseased blood states.

Prerequisite: Admission to the MLT program.

Instruction Type: In-Person | Online

Fee: \$60

Term Typically Offered: Fall

MLT 112 2 credit hours (lecture: 1.5 | lab: 1.5)

Urinalysis and Body Fluids

Course studies urine formation including function and diseases of the kidney. Lectures and laboratory sessions focus on detection of physical, chemical and microscopic properties of urine in normal and abnormal states. Content also includes discussion of miscellaneous fluid analysis, cerebrospinal fluid analysis, gastric analysis and fecal analysis.

Prerequisite: Admission to the MLT program.

Instruction Type: In-Person | Online

Fee: \$45

Term Typically Offered: Fall

MLT 113 4 credit hours (lecture: 3 | lab: 3)

Immuno-hematology/Blood Bank

Course introduces basic concepts in immunology and blood banking.

Lectures and laboratory sessions focus on performing all routine and some special procedures currently practiced in blood bank departments.

Prerequisite: MLT 105, MLT 106, MLT 111, and MLT 112 with minimum grade of C in each course.

Instruction Type: In-Person | Hybrid

Fee: \$90

Term Typically Offered: Spring

MLT 115 1 credit hours (lecture: .5 | lab: 1)

Coagulation

Course includes classroom lecture and laboratory course in coagulation.

Content includes pathways and mechanisms which make it possible for blood to clot or remain fluid.

Prerequisite: MLT 105, MLT 106, MLT 111, and MLT 112, with minimum grade of C in each course.

Instruction Type: In-Person

Fee: \$30

Term Typically Offered: Spring

MLT 117 1 credit hours (lecture: .5 | lab: 1)

Immunology/Serology

Course includes classroom lecture and laboratory course in immunology and serology. Content includes factors involved in host response to a specific challenge with a foreign antigen; focus of serology portion of course is on detection of disease and pregnancy based on antigen-antibody reactions, using a variety of immunologic methods.

Prerequisite: MLT 105, MLT 106, MLT 111, and MLT 112 with minimum grade of C in each course.

Instruction Type: In-Person

Fee: \$30

Term Typically Offered: Spring

MLT 204 2 credit hours (lecture: 0 | lab: 8)

Phlebotomy Practicum

Course consists of 120 contact hours (15 eight hour days) of supervised practice in phlebotomy at assigned clinical affiliation site. Practicum provides opportunity to observe and gain proficiency in skin punctures, venipuncture and special collection techniques.

Prerequisite: Completion of MLT 105 and MLT 107 with minimum grade of C in each course.

Instruction Type: In-Person

Fee: \$50

Term Typically Offered: Fall | Spring | Summer

MLT 210 2 credit hours (lecture: 0 | lab: 12)

Clinical Practicum I

Course includes five twenty-four hours-per-week practicum sessions to perform technical procedures at assigned clinical affiliation sites, in five major laboratory areas: Blood Bank, Clinical Chemistry, Hematology, Medical Microbiology and Serology - Coagulation- Urinalysis. Each area is self-contained module. Clinical affiliate determines sequence of modules on rotational schedule. All five modules must be completed, each separately graded.

Prerequisite: MLT 105, MLT 106, MLT 111, MLT 112, MLT 113, MLT 115, MLT 117, BIO 251, and CHM 122 with minimum grade of C in each course.

Instruction Type:

Fee: \$70

Term Typically Offered: Summer

MLT 215 **4 credit hours (lecture: 3 | lab: 3)****Clinical Chemistry**

Course combines classroom lecture and laboratory course. Content includes basic theories, techniques and sources of error in routine clinical chemistry procedures. Focus is on correlations between clinical picture and laboratory results.

Prerequisite: MLT 113, MLT 115, MLT 117, CHM 121, and CHM 122 with minimum grade of C in each course.

Instruction Type: In-Person | Online | Hybrid

Fee: \$50

Term Typically Offered: Summer

MLT 220 **2 credit hours (lecture: 0 | lab: 12)****Clinical Practicum II**

Course includes five twenty-four hours-per-week practicum sessions to perform technical procedures at assigned clinical affiliation sites, in five major laboratory areas: Blood Bank, Clinical Chemistry, Hematology, Medical Microbiology and Serology - Coagulation- Urinalysis. Each area is self-contained module. Clinical affiliate determines sequence of modules on rotational schedule. All five modules must be completed, each separately graded.

Prerequisite: MLT 215 with minimum grade of C.

Instruction Type: In-Person

Fee: \$70

Term Typically Offered: Fall

MLT 221 **2 credit hours (lecture: 0 | lab: 12)****Clinical Practicum III**

Course includes five twenty-four hours-per-week practicum sessions to perform technical procedures at assigned clinical affiliation sites, in five major laboratory areas: Blood Bank, Clinical Chemistry, Hematology, Medical Microbiology and Serology - Coagulation- Urinalysis. Each area is self-contained module. Clinical affiliate determines sequence of modules on rotational schedule. All five modules must be completed, each separately graded.

Prerequisite: MLT 215 with minimum grade of C.

Instruction Type: In-Person

Fee: \$70

Term Typically Offered: Fall

MLT 225 **4 credit hours (lecture: 3 | lab: 3)****Medical Microbiology**

Course provides in-depth study of medical microbiology. Content includes mycology and parasitology, terminology and methods used to isolate and identify pathogens.

Prerequisite: MLT 215 and BIO 151, with minimum of grade of C in each course.

Instruction Type: In-Person | Online

Fee: \$90

Term Typically Offered: Fall

MLT 230 **2 credit hours (lecture: 0 | lab: 12)****Clinical Practicum IV**

Course includes five twenty-four hours-per-week practicum sessions to perform technical procedures at assigned clinical affiliation sites, in five major laboratory areas: Blood Bank, Clinical Chemistry, Hematology, Medical Microbiology and Serology - Coagulation- Urinalysis. Each area is self-contained module. Clinical affiliate determines sequence of modules on rotational schedule. All five modules must be completed, each separately graded.

Prerequisite: MLT 220 and MLT 225, with minimum grade of C in each course.

Instruction Type: In-Person

Fee: \$70

Term Typically Offered: Spring

MLT 231 **2 credit hours (lecture: 0 | lab: 12)****Clinical Practicum V**

Course includes five twenty-four hours-per-week practicum sessions to perform technical procedures at assigned clinical affiliation sites, in five major laboratory areas: Blood Bank, Clinical Chemistry, Hematology, Medical Microbiology and Serology - Coagulation- Urinalysis. Each area is self-contained module. Clinical affiliate determines sequence of modules on rotational schedule. All five modules must be completed, each separately graded.

Prerequisite: MLT 220 and MLT 225, with minimum grade of C in each course.

Instruction Type: In-Person

Fee: \$70

Term Typically Offered: Spring

MLT 235 **3 credit hours (lecture: 3 | lab: 0)****Applications In Laboratory Practice**

Course deals with presentation and utilization of basic mathematics concepts as applied in the medical laboratory. Focus is on laboratory quality control and governmental regulations. Review of all major areas also included.

Prerequisite: MLT 210 and MLT 225, with minimum grade of C in each course.

Instruction Type: In-Person

Term Typically Offered: Spring