

MED LAB TECH (MLT)

MLT-105 Pathophysiology for the Laboratorian (3)

Presents clinical disorders and diseases commonly tested for in the field of laboratory medicine. Covers pathology, etiology, diagnosis, interactions and interferences, symptoms and prognosis. Arts & Sciences Elective Code: B

Hours per week: 3.0 lecture

MLT-106 Introduction to Biosafety (1)

Introduces the basic principles and practices of biological safety in the laboratory workplace. Provides understanding of risks present in the laboratory and how to protect oneself from risks. Arts & Sciences Elective Code: B

Hours per week: 1.0 lecture

MLT-109 Principles of Phlebotomy (3)

Develops advanced skills to perform phlebotomy. Includes demonstrations of and practice collecting blood specimens by venipuncture and capillary methods. Teaches anatomy and physiology of the circulatory system, medical terminology, customer service, methods to facilitate the collection and transportation of other laboratory specimens as well as how to obtain blood specimens. Arts & Sciences Elective Code: B

Hours per week: 1.5 lecture, 1.0 lab, 3.0 clinical

MLT-115 Clinical Lab Fundamentals (3)

Addresses the field of laboratory medicine. Teaches basic laboratory mathematics, testing methods, and quality control. Introduces blood collection and the study of common blood cells and blood cell disorders.

Arts & Sciences Elective Code: B

Hours per week: 2.0 lecture, 2.0 lab

MLT-120 Urinalysis (3)

Introduces urinalysis and laboratory analysis of miscellaneous body fluids. Includes the theory of urine formation and the methodology to determine the physical, chemical, and microscopic properties of urine in normal and abnormal states. Theory and test profiles are also presented for miscellaneous body fluids with correlation to diseased states. Arts & Sciences Elective Code: B

Hours per week: 2.0 lecture, 2.0 lab

Prerequisite: Minimum C in either BIO-161, or both BIO-168 and BIO-173. Minimum C in COM-222, ENG-105, ENG-108 or ENG-120. Minimum C in MLT-105. Minimum C in MLT-106. Minimum C in MLT-109. Minimum C in MLT-115.

MLT-130 Hematology (3)

Studies the function of blood, morphology, and maturation of normal cells, blood cell counts, differentials of white blood cells, hematology test procedures, and blood collection and handling. Arts & Sciences Elective Code: B

Hours per week: 2.0 lecture, 2.0 lab

Prerequisite: Minimum C in BIO-161, or in both BIO-168 and BIO-173. Minimum C in COM-222, ENG-105, ENG-108 or ENG-120. Minimum C in MLT-105. Minimum C in MLT-106. Minimum C in MLT-109. Minimum C in MLT-115.

MLT-230 Advanced Hematology (3)

Studies abnormal cell morphology and diseases involving blood cells and test procedures used in the laboratory diagnosis of hematological disease. Arts & Sciences Elective Code: B

Hours per week: 2.0 lecture, 2.0 lab

Prerequisite: Minimum C in BIO-186. Minimum C in MLT-120. Minimum C in MLT-130. Minimum C in COM-222, ENG-105, ENG-108 or ENG-120.

MLT-233 Hemostasis and Thrombosis (2)

Emphasizes the mechanism by which the body prevents loss of blood from the vascular system. Focuses on chemical responses of blood vessels, platelet activation and biochemical reactions that lead to clot formation and dissolution. Includes tests used to detect coagulation deficiencies and abnormalities. Arts & Sciences Elective Code: B

Hours per week: 1.0 lecture, 2.0 lab

Prerequisite: Minimum C in BIO-186. Minimum C in MLT-120. Minimum C in MLT-130. Minimum C in COM-222, ENG-105, ENG-108 or ENG-120.

MLT-245 Clinical Chemistry (5)

Introduces various aspects of clinical chemistry including primary blood and body fluid constituents, their significance in health and disease, and methods utilized in their determinations. Emphasizes competence in general procedures for clinical analysis and the development of pertinent skills of troubleshooting, evaluating data, and interpreting for presence/absence of disease. Arts & Sciences Elective Code: B

Hours per week: 3.0 lecture, 4.0 lab

Prerequisite: Minimum C in MLT-230. Minimum C in MLT-233. Minimum C in MLT-270. Minimum C in both CHM-110 and CHM-111, or in CHM-132.

MLT-255 Clinical Microbiology (5)

Examines the essential principles of bacteriology relative to human disease with emphasis on knowledge regarding the pathogenicity of the microorganisms presented. Emphasizes competence in general procedures such as cultivation, isolation, and identification of organisms. Discusses evaluation/interpretation of laboratory data. Arts & Sciences Elective Code: B

Hours per week: 3.0 lecture, 4.0 lab

Prerequisite: Minimum C in both CHM-110 and CHM-111, or in CHM-132. Minimum C in MLT-230. Minimum C in MLT-233. Minimum C in MLT-270.

MLT-260 Immunohematology (4)

Covers blood grouping, typing, antibody screening and identification, and compatibility testing with an overview of hemolytic disease of the newborn, processing of donor blood, and blood component therapy. Arts & Sciences Elective Code: B

Hours per week: 2.0 lecture, 4.0 lab

Prerequisite: Minimum C in both CHM-110 and CHM-111, or in CHM-132. Minimum C in MLT-230. Minimum C in MLT-233. Minimum C in MLT-270. Minimum C in BIO-186. Minimum C in CHM-110 or CHM-132.

MLT-270 Immunology and Serology (2)

Focuses on the reactions of the body's immune system to foreign substances. Included are basic antigen-antibody reactions, complement action, cellular response, humoral immune response, and the serological test procedures used to aid in the detection of certain diseases. Arts & Sciences Elective Code: B

Hours per week: 1.0 lecture, 2.0 lab

Prerequisite: Minimum C in BIO-186. Minimum C in MLT-120. Minimum C in MLT-130. Minimum C in COM-222, ENG-105, ENG-108 or ENG-120.

MLT-271 Lab Survey and Preparation (1)

Reviews all departments of the laboratory toward the end of the clinical practicum. Provides review of didactic materials in preparation for the comprehensive examination. Includes clinic time for review or additional experience in any or all departments of the laboratory. Arts & Sciences Elective Code: B

Hours per week: 3.0 clinical

Prerequisite: Minimum C in MLT-283. Minimum C in MLT-286. Minimum C in MLT-287. Minimum C in MLT-293. Minimum C in MLT-297.

MLT-283 Clinical Practicum: Urinalysis (1)

Continues Urinalysis. Provides clinical experience in the performance of routine urinalysis. Stresses comparison of methodology covered in Urinalysis. Arts & Sciences Elective Code: B

Hours per week: 3.0 clinical

Prerequisite: Minimum C in MLT-245. Minimum C in MLT-255. Minimum C in MLT-260. Minimum C in MLT-290.

MLT-286 Clinical Practicum: Immunology and Serology (1)

Continues Immunology and Serology. Provides clinical experience in the performance of serologic testing. Emphasizes the comparison and contrast of methodology with Immunology and Serology. Arts & Sciences Elective Code: B

Hours per week: 3.0 clinical

Prerequisite: Minimum C in MLT-245. Minimum C in MLT-255. Minimum C in MLT-260. Minimum C in MLT-290.

MLT-287 Clinical Practicum: Hematology (4)

Continues Hematology and Advanced Hematology. Provides clinical experience in specimen collection and performance of routine hematology and coagulation tests. Stresses comparison and contrast with methodologies of Hematology and Advanced Hematology. Provides experience with automation. Arts & Sciences Elective Code: B

Hours per week: 12.0 clinical

Prerequisite: Minimum C in MLT-245. Minimum C in MLT-255. Minimum C in MLT-260. Minimum C in MLT-290.

MLT-288 Clinical Practicum: Microbiology (4)

Continues Clinical Microbiology. Provides experience in bacteriologic, mycotic and parasitologic studies in a clinical setting. Examines practices and procedure of Clinical Microbiology as compared and contrasted with clinical practice. Arts & Sciences Elective Code: B

Hours per week: 12.0 clinical

Prerequisite: Minimum C in MLT-283. Minimum C in MLT-286. Minimum C in MLT-287. Minimum C in MLT-293. Minimum C in MLT-297.

MLT-290 Clinical Seminar and Review (2)

Reviews all MLT subjects. Presents case studies and provides class time for interactive review of didactic materials and preparation for the comprehensive examination. Arts & Sciences Elective Code: B

Hours per week: 2.0 lecture

Prerequisite: Minimum C in both CHM-110 and CHM-111, or in CHM-132. Minimum C in MLT-230. Minimum C in MLT-233. Minimum C in MLT-270.

MLT-293 Clinical Practicum: Immunohematology (3)

Continues Immunohematology. Provides clinical experience in specimen collection and performance of immunohematologic tests. Stresses comparison and contrast with methodology of Immunohematology. Arts & Sciences Elective Code: B

Hours per week: 9.0 clinical

Prerequisite: Minimum C in MLT-245. Minimum C in MLT-255. Minimum C in MLT-260. Minimum C in MLT-290.

MLT-297 Clinical Practicum: Chemistry (3)

Continues Clinical Chemistry. Provides clinical experience in specimen collection and performance of clinical chemistry tests. Compares and contrasts with methodology of Clinical Chemistry. Emphasizes the use of automatic equipment. Arts & Sciences Elective Code: B

Hours per week: 9.0 clinical

Prerequisite: Minimum C in MLT-245. Minimum C in MLT-255. Minimum C in MLT-260. Minimum C in MLT-290.