MEDICAL LABORATORY SCIENCE (MLS)

Courses

MLS 221. Clinical Chemistry I. 4 Credits.
Lectures and laboratory experiences introduce basic principles in clinical quantitative analysis and laboratory instrumentation; test results are correlated with clinical case studies. Prerequisites: ANPS 019, ANPS 020, CHEM 032; CHEM 042 or CHEM 141.

MLS 222. Clinical Chemistry II. 3 Credits.
Advanced instruction in body chemistry and pathophysiology of disease with emphasis on diagnostic lab techniques in chemistry. Prerequisites: MLS 221, PATH 101.

MLS 231. Hematology. 3-4 Credits.
Advanced theory and analysis of blood cell physiology and related pathology. Concepts of hemostasis and clinical assessment methods. Prerequisites: One semester of organic chemistry, one semester of biochemistry.

MLS 255. Clinical Microbiology II. 3 Credits.
Comprehensive study of non-bacterial pathogenic microorganisms and their disease states in humans. Includes medical mycology, parasitology and virology. Prerequisites: MMG 065 or MMG 101.

MLS 262. Immunohematology. 4 Credits.
Advanced theory and experience related to human blood groups and transfusion practice. Prerequisite: MLRS 242 or MMG 223.

MLS 301. Clinical Practicum. 12 Credits.
Clinical Practicum involves a semester long directed clinical practice in Hematology, Chemistry, Microbiology, Immunohematology, and Molecular Biology at assigned clinical affiliate sites. Prerequisites: MLRS 281, MLRS 282, MLS 255; MLRS 242 or MMG 223; MLRS 244, MLS 221, MMG 222, MLS 222, MLS 231, MLS 262.

MLS 302. Certification Review. 1 Credit.
Certification review of the Medical Laboratory Science Body of Knowledge. It is designed to provide a challenging self directed assessment of practical and theoretical knowledge and will prepare students to successfully pass the ASCP certification exam in MLS. Prerequisites: MLRS 281, MLRS 282, MLS 255; MLRS 242 or MMG 223; MLRS 244, MLS 221, MMG 222, MLS 222, MLS 231, MLS 262. Pre/Co-requisite: MLS 301.

MLS 310. Advanced Immunobiology. 3 Credits.
Advanced survey of key current topics in immunology. Focus on understanding the key concepts and experimental approaches in the major areas in immunology, with an emphasis on applications to human disease. Prerequisites: Graduate student standing; Cell Biology and Biochemistry recommended.

MLS 371. Clinical Correlations. 3 Credits.
Advanced, graduate-level education in medical laboratory testing. The appropriate utilization of laboratory tests for screening, diagnosis, monitoring and determining prognosis of various human diseases will be discussed.