MLS - MEDICAL LABORATORY SCIENCE

MLS 2080 Medical Laboratory Science Seminar Cr. 1
Introduction to the medical laboratory science profession, educational requirements, and opportunities. Offered Every Term.

MLS 3020 Hematology I Cr. 4
Basic study of blood-forming organs and components of blood; explanation of basic hematological procedures. Offered Yearly.
Restriction(s): Enrollment limited to students in the Pharmacy and Health Sciences.
Fees: $75

MLS 3040 Immunohematology I Cr. 4
Introduction to principles of immunohematology and theory and practice of routine testing procedures employed in the clinical blood bank. Survey of the organization and operation of a blood bank. Offered Yearly.
Restriction(s): Enrollment limited to students in the Pharmacy and Health Sciences.
Fees: $130

MLS 3080 Instrumentation Lecture and Laboratory Cr. 3
Introduction to fundamental laws of electronics, the theoretical basis of instrument design, and quality control in laboratory testing. Application of instrumental methods, including spectrophometric, flurometric, electroanalytical, and chromatographic methods to the clinical laboratory. Offered Fall.
Restriction(s): Enrollment is limited to students with a major in Medical Laboratory Science.
Fees: $100

MLS 3100 Urine and Body Fluid Analysis Cr. 4
Specimen collection, preparation, and examination of urine and other body fluids such as spinal fluid, semen, and synovial fluid. Offered Yearly.
Restriction(s): Enrollment limited to students in the Pharmacy and Health Sciences.
Fees: $85

MLS 3280 Clinical Chemistry Lecture and Laboratory Cr. 3
Methodologies and interpretations of results of clinical chemistry diagnostic tests. Offered Yearly.
Restriction(s): Enrollment limited to students in the Pharmacy and Health Sciences.
Fees: $113

MLS 3330 Medical Terminology Cr. 1
Study of medical terms in a body system approach. Review of anatomy and physiology. Offered Every Term.

MLS 4000 Clinical Hematology Cr. 5
This course takes place at one of the clinical laboratories affiliated with the MLS Program. The experiential training consists of performing assays on specimens, microscopic identification of cells and other formed elements, and correlating lab results with clinical findings in hematology, urinalysis, and coagulation. Offered Winter.
Restriction(s): Enrollment limited to students in the Pharmacy and Health Sciences.
Fees: $65

MLS 4010 Clinical Chemistry Cr. 4
This course takes place at one of the clinical laboratories affiliated with the MLS Program. The experiential training consists of biochemical analysis of constituents of blood and other body fluids, operating and maintaining automated instruments and correlating lab results with clinical findings in clinical chemistry. Offered Winter.
Restriction(s): Enrollment limited to students in the Pharmacy and Health Sciences.
Fees: $65

MLS 4020 Clinical Blood Bank Cr. 3
This course takes place at one of the clinical laboratories affiliated with the MLS Program. The experiential training consists of application of the theory and principles involving antigen-antibody reactions of blood. Students perform assays on specimens and obtain, store, and prepare whole blood and blood components for transfusion, and correlate lab results with clinical findings. Offered Winter.
Restriction(s): Enrollment limited to students in the Pharmacy and Health Sciences.
Fees: $65

MLS 4030 Clinical Microbiology Cr. 4
This course takes place at one of the clinical laboratories affiliated with the program. The experiential training consists of obtaining, culturing, identification and determining antibiotic sensitivity of microorganisms causing infection or infestation. Offered Winter.
Restriction(s): Enrollment limited to students in the Pharmacy and Health Sciences.
Fees: $43

MLS 4040 Laboratory Operations Cr. 2
Laboratory management issues and problems, with emphasis on the hospital setting. Includes professional conduct, management theory, interpersonal and technical skills, legal and regulatory issues, computers in laboratories, quality assessment and improvement, educational methodologies, and clinical study design. Offered Fall.
Restriction(s): Enrollment is limited to students with a major in Medical Laboratory Science.

MLS 4210 Hemostasis Lecture and Laboratory Cr. 2
Lecture and laboratory course covering principles of hemostasis and assessment of hemostasis status. Performance and interpretation of diagnostic tests, along with problem solving and correlation of laboratory findings with disease states. Offered Spring/Summer.
Fees: $75

MLS 4230 Hematology II Cr. 4
Continuation of Hematology I. Introduction to hematologic neoplasms. Application of laboratory methods for diagnosis and treatment. Offered Yearly.
Restriction(s): Enrollment limited to students in the Pharmacy and Health Sciences.
Fees: $85

MLS 4240 Immunohematology II Cr. 4
Advanced immunohematology practices, including investigation and resolution of unusual serological conditions related to transfusion of blood and blood components, blood component processing and transfusion reaction investigation. Continuation of MLS 3040. Offered Fall.
Restriction(s): Enrollment limited to students in the Pharmacy and Health Sciences.
Fees: $77

MLS 4990 Professional Directed Study Cr. 1
Independent study under faculty supervision. Offered Spring/Summer.
Restriction(s): Enrollment limited to students in the Pharmacy and Health Sciences.

MLS 5500 Immunology and Serology Cr. 3
Applications of immunology and serology in a clinical laboratory setting, including relevance to human medicine, performance and interpretation of diagnostic tests, along with problem solving and correlation of laboratory findings with disease states. Offered Yearly.
Restriction(s): Enrollment limited to students in the Pharmacy and Health Sciences.
Fees: $128

MLS 5510 Diagnostic Microbiology I Cr. 4
Introduction to the fundamental principles of clinical microbiology with in-depth study of important human bacterial pathogens, and of principles and methods used in the diagnostic bacteriology laboratory. Offered Winter.
Restriction(s): Enrollment limited to students in the Pharmacy and Health Sciences.
Fees: $219

MLS 5520 Diagnostic Microbiology II Cr. 4
Lecture and laboratory course in diagnostic microbiology with a focus on clinical virology, mycology, and parasitology and the recognition of bacterial pathogens according to body site. Offered Fall.
Restriction(s): Enrollment limited to students in the Pharmacy and Health Sciences.
Fees: $140

MLS 5530 Medical Laboratory Science Simulation Laboratory Cr. 2
Application of previously acquired theory and techniques in a simulated clinical laboratory, with emphasis on work organization, correlation of results, management, decision-making, and quality assurance. Offered Spring/Summer.
Restriction(s): Enrollment limited to students in the Pharmacy and Health Sciences.
Fees: $100

MLS 5550 Molecular Diagnostics Cr. 3
Review of molecular biology principles applicable to current testing systems. Laboratory techniques to elucidate molecular structure and disease states, including DNA hybridization, agarose gel electrophoresis, southern and western blot techniques, DNA sequencing, PCR. Offered Yearly.
Restriction(s): Enrollment limited to students in the Pharmacy and Health Sciences.
Fees: $90

MLS 5590 MLS Honors Thesis Project Cr. 3
Independent study under faculty supervision for the purpose of developing and completing an MLS Honors thesis research project, writing a thesis paper, and producing a poster to be submitted to the College of Pharmacy and Health Sciences Research Day. Offered Spring/Summer.
Restriction(s): Enrollment is limited to students with a major in Medical Lab Science Honors.

MLS 5993 Writing Intensive Course in Medical Laboratory Science Cr. 0
Disciplinary writing assignments under the direction of a faculty member. Course must be elected in conjunction with designated corequisite; see Schedule of Classes for corequisites available each term. Satisfies University General Education Writing Intensive Course in the Major requirement. Required for all majors. Offered Every Term.
Prerequisites: AFS 2390 with a minimum grade of C, ENG 2390 with a minimum grade of C, ENG 3010 with a minimum grade of C, ENG 3020 with a minimum grade of C, or ENG 3050 with a minimum grade of C
Restriction(s): Enrollment limited to students in the Pharmacy and Health Sciences.

MLS 5996 MLS Clinical Pathology Review Cr. 2
A review of the Medical Laboratory Science Body of Knowledge. In-class discussions, case studies, and quizzes to prepare students for the certification examination. This course culminates in a comprehensive mock exam. Offered Winter.
Restriction(s): Enrollment limited to students in the Pharmacy and Health Sciences.