Post-baccalaureate Certificate in Hematology For Medical Laboratory Science Course Descriptions:

**MLS 4118: Laboratory Operations.** 1 credit. Basic concepts applicable to all areas of the clinical laboratory. Quality assurance and quality control, laboratory safety, including federal regulations, and related topics.


**MLS 4129: Hematology II.** 2 credits. Principles of laboratory detection, clinical correlation, and pathophysiology of human blood cell diseases and disorders of hemostasis.

**MLS 4151: Molecular Diagnostics.** 3 credits. The advances in scientific technology have expanded the interest and applicability of nucleic acid based analysis within clinical diagnostic laboratories and routine screening procedures. The Molecular Diagnostics course is an introduction to the molecular techniques used to diagnose human diseases. The course will emphasize the technology, theory, and methodology of specific molecular protocols that can be utilized within a clinical laboratory setting to aid in disease diagnosis, including those of genetic, oncogenic, and infectious origin.

**MLS 4140: Clinical Laboratory Management.** 3 credits. Basic concepts of laboratory management, including organizational principles, financial management of resources, decision-making and problem-solving skills, human resource management.

**MLS 4141: Immunology and Serology.** 3 credits. Principles of the immune system’s components, functions, interactions with microorganisms, and the clinical applications of immunologic assays to human health and disease.

**MLS 4162: Hematology Practicum.** 2 credits. The Hematology and Hemostasis Practicum is a 3-week, required rotation for students in the BSHS in MLS or the post-baccalaureate MLS or Hematology certificate programs. During this practicum course, the student will actively engage in applying the medical knowledge and clinical skills gained in the didactic Hematology I (MLS 4128) and Hematology II (MLS 4129) courses.

**MLS 4166 Coagulation Practicum.** 1 credit. A hands-on clinical experience where students will actively engage in applying the medical knowledge and clinical skills gained in the didactic MLS Hematology courses.