



## MED 200: Hematology

This course consists of integrated instruction between the College and an affiliate hospital laboratory. The theory and practice of routine hematology is studied. Topics include the collection and handling of clinical specimens, the origin, development, and function of human blood cells in health and disease, hemostasis and coagulation, automation, computerization, and quality control. Routine hematology and coagulation testing is emphasized. Prerequisite: MED 102, BIO 239, CHM 116, and MTH 119 all with a grade of C or better. This course includes 30 hours of lecture and 30 hours of teaching laboratory to be completed at the College during the first half of the fall semester, and 120 hours of clinical laboratory experience at an affiliate hospital laboratory and 6 hours of clinical seminar at the College during the second half of the semester. Instructional Support Fee applies.

### Course Student Learning Outcomes

1. Perform, interpret and analyze routine hematology and coagulation testing including manual push smears and stains, manual differentials, automated complete blood counts, manual cell counts, erythrocyte sedimentation rates, manual coagulation testing and automated coagulation testing. 2. List procedure, principle and normal values for specified laboratory tests. 3. Recognize abnormal results and describe corrective action. 4. Apply routine hematology calculations. 5. Discuss clinical significance of hematology testing and its relation to disorders of the blood and body fluids including; erythrocyte abnormalities, leukocyte abnormalities, platelet abnormalities, bone marrow dysfunction, genetic disorders, microorganisms, tumors and coagulation disorders. 7. Discuss professionalism and the appropriate ethical conduct required to work in a clinical setting and in the delivery of health care to the diverse ethnic population in the service area. 8. Communicate appropriately using proper medical and laboratory terminology. 9. Discuss and utilize standard safety practices as outlined by OSHA and CDC. 10. Apply concepts of instrumentation to hematology analysis. 11. Maintain patient confidentiality. 12. Discuss and interpret quality control and quality assurance applications necessary to ensure reliability of test results and equipment. 13. Prepare materials and supplies for laboratory testing. 14. Describe collection, appropriateness and preparation of specimens for testing. 15. Follow the program safety policies in the CLS laboratory. 16. Work cooperatively with fellow students, instructors and college staff.

**Credits:** 5

**Program:** Clinical Laboratory Science