

MLT Immunohematology

Course Information

Developers: Medical Laboratory Technology State Curriculum Committee

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Credit Hours: 6

Prerequisite: Admission to the MLT program or instructor approval.

Description:

A study of the immunology of blood, including those principles and practices that are known collectively as blood banking. An overview of blood component collection and component preparation is presented. Basic concepts of genetics, immunology and antiglobulin testing are included as a foundation for the understanding of the blood group systems and antibody detection and identification. Current transfusion practices are discussed. The student will gain experience in performance of techniques in immunohematology.

Outcomes:

1. Relate the proper specimen collection and handling, type of quality control used, reference ranges, principle of analysis currently available, and sources of analytical errors for each of the analytes discussed or approached in the course.
2. Perform all procedures with regard to prescribed safety protocol and confidentiality.
3. Correlate abnormal results with the most likely disease process by determining the clinical significance of the findings.
4. Describe the theory and principles of immunogenetics and immunohematology.
5. List the major blood group systems and the major antigens and associated antibodies of each system.
6. Describe the theory and principles of routine blood banking procedures.
7. Perform routine blood banking procedures with competency (as judged with the use of control materials).
8. Demonstrate the proper use and care of selected associated laboratory equipment.
9. Illustrate the basic concepts of donor selection and therapeutic use of blood components.