MELT 1645: Immunohematology (Blood Bank)

A. COURSE DESCRIPTION

Credits: 5
Lecture Hours/Week: 3
Lab Hours/Week: 4
OJT Hours/Week: *.
Prerequisites: None
Corequisites: None
MnTC Goals: None

This course introduces the learner to techniques in performing and interpreting tests of blood group serology. The ABO and Rh systems are studied in detail with an emphasis on accurate grouping and typing. Other topics covered include other blood group systems, antibody screen, antibody identification, hemolytic disease of the newborn, safe blood component therapy, blood donation, blood components, and transfusion practices. Antibody screening and identification are emphasized. This course prepares a learner to work in a transfusion laboratory/department.

B. COURSE EFFECTIVE DATES: 04/05/2024 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Discuss basic Immunology principles.
2. Describe and perform ABO testing.
3. Describe and perform Rh testing.
4. Describe and perform direct antiglobulin test (DAT).
5. Describe and perform indirect globulin test (IAT).
6. Discuss hemolytic disease of the newborn (HDN).
7. Discuss blood donor suitability.
8. Discuss other blood group systems.
9. Identify blood group system antibodies.
10. Perform compatibility testing.
11. Describe blood components.
12. Describe transfusion reactions.
13. Discuss transfusion associated diseases.

D. LEARNING OUTCOMES (General)

1. Demonstrate knowledge of Immunology and the ABO system.
2. Demonstrate knowledge of Rh Systems.
3. Demonstrate knowledge of IAT, DAT, and HDN.
4. Demonstrate knowledge of the other blood group systems and antibody identification.
5. Demonstrate knowledge of blood donation process and blood component therapy.
6. Demonstrate knowledge of pretransfusion testing, transfusion reactions, and infectious diseases associated with blood transfusions.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies
   None

F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus

G. SPECIAL INFORMATION
   None noted