South Central College

MDLT 1820 Coagulation

Course Outcome Summary

Course Information

Description This course covers the basic principles of the hemostasis, the clotting system of the body. The course of study includes the coagulation factors and their cascade sequence, vascular and platelet components, fibrinolysis, thrombosis, anticoagulant therapy and quality control. Abnormalities of the coagulation system will also be covered. (Prerequisite: MDLT 1810, & MDLT 1815 with a grade of C or higher.)

MDLT 1810, & MDLT 1815 with a grade of C or higher.

Total Credits 2

Total Hours 48

Types of Instruction

Instruction Type	Credits/Hours
Online	1/16
On campus lab	1/32

Pre/Corequisites

MDLT 1810, & MDLT 1815 with a grade of C or higher.

Institutional Core Competencies

Communication - Students will be able to demonstrate appropriate and effective interactions with others to achieve their personal, academic, and professional objectives.

Critical and Creative Thinking - Students will be able to demonstrate purposeful thinking with the goal of using a creative process for developing and building upon ideas and/or the goal of using a critical process for the analyzing and evaluating of ideas.

Course Competencies

1. Review and practice phlebotomy techniques.

Learning Objectives

Explain various phlebotomy techniques (microtechnique, venipuncture).
Demonstrate various phlebotomy techniques (microtechnique, venipuncture).
Discuss proper specimen collection, handling, processing and transport.
Identify preanalytical testing variables.

Provide corrective action measures for preanalytical testing variables.

2. Define and apply coagulation terminology appropriately.

Learning Objectives
Define common terms used in coagulation testing.
Use terminology related to coagulation.
Discuss importance of good communication among healthcare personnel.

3. Discuss quality assurance.

Learning Objectives
Define the parameters of a good quality assurance program.
Apply quality assurance/quality control program rules.
Identify failed quality control measurements.
Apply corrective action for failed quality control mesurements.

4. Apply quality control measurements.

Learning Objectives
Define the parameters of a good quality assurance program.
Interpret quality control results.
Calculate 2SD control ranges.
Graph 2SD control ranges.
Discuss significance of quality control ranges.

5. Interpret quality control measurements.

Learning Objectives
Define the parameters of a good quality assurance program.
Interpret quality control results.
Calculate 2SD control ranges.
Graph 2SD control ranges.
Discuss significance of quality control ranges.

6. Apply appropriate correction action for failed quality control measurements.

Learning Objectives
Define the parameters of a good quality assurance program.
Interpret quality control results.
Identify failed quality control measurements.
Explain corrective action for failed quality control measurements.
Discuss significance of quality control ranges.

7. Explain the hemostatic process.

Learning Objectives
Identify terminology related to the hemostatic process.
Use terminology related to the hemostatic process.
Describe the four mechanisms that comprise the hemostatic mechanism.

8. Differentiate coagulation factors.

Learning Objectives
List the individual coagulation factors.
Discuss the significance of the individual coagulation factors.
Categorize the individual coagulation factors into their respective coagulation factor groups.
Categorize the individual coagulation factors into their respective pathways.

9. Diagram coagulation factors.

Learning Objectives
List the individual coagulation factors.
Categorize the individual coagulation factors into their respective pathways.
Organize the coagulation factors in proper cascade form.

10. List coagulation testing conditions for selected coagulation procedures.

Learning Objectives
Identify coagulation testing conditions.
Describe coagulation testing conditions.
Explain the significance of coagulation testing conditions on patient results.

11. Identify coagulation testing errors for selected coagulation procedures.

Learning Objectives
List common coagulation testing errors.
Describe common coagulation testing errors.
Explain the significance of coagulation testing errors on patient results.

12. Discuss proper coagulation specimen requirements for selected coagulation procedures.

Learning Objectives
List common coagulation specimen types.
Discuss significance of proper specimen collection, handling, processing and transport.
Identify preanalytical testing variables.
Provide corrective action measures for preanalytical testing variables.

13. Identify the general procedures for specimen collection, handling, processing and transport.

Learning Objectives
List general procedures for specimen collection, handling, processing and transport.
Discuss general procedures for specimen collection, handling, processing and transport.
Identify preanalytical testing variables for specimen collection, handling, processing and transport.
Provide corrective action measures for preanalytical testing variables.

14. Discuss the impact of preanalytical coagulation testing variables on laboratory results.

Learning Objectives
Discuss significance of proper specimen collection, handling, processing and transport.
Identify preanalytical testing variables.
Correlate significance of preanalytical testing variables on laboratory results.
Discuss corrective action measures for preanalytical testing variables.

15. Practice basic coagulation testing procedures.

Learning Objectives
List basic coagulation testing procedures.
Discuss basic coagulation testing procedures.
Practice basic coagulation testing procedures.

16. Interpret basic coagulation testing procedure results.

Learning Objectives
List basic coagulation testing procedures.
Practice basic coagulation testing procedures.
Discuss significance of basic coagulation testing patient results.
Correlate basic coagulation testing results with patient clinical condition.

17. Discuss coagulation automation.

Learning Objectives
Discuss different types of automated coagulation analyzers.
Practice basic coagulation testing procedures on assigned coagulation analyzers.
Interpret patient results from automated coagulation analyzers.
Apply quality control measurements obtained from automated coagulation analyzers.
Interpret quality control measurements from automated analyzers.

SCC Accessibility Statement

South Central College strives to make all learning experiences as accessible as possible. If you have a disability and need accommodations for access to this class, contact the Academic Support Center to request

and discuss accommodations. North Mankato: Room B-132, (507) 389-7222; Faribault: Room A-116, (507) 332-7222.

Additional information and forms can be found at: www.southcentral.edu/disability

This material can be made available in alternative formats by contacting the Academic Support Center at 507-389-7222.