

Course Description

MLT1330 | Clinical Coagulation | 1.00 credit

Didactic study of hemostasis, various clotting mechanisms, and related disease states. Corequisite: MLT1130L.

Course Competencies:

Competency 1: The student will demonstrate knowledge of the process of hemostasis by:

- 1. Describing the process of hemostasis.
- 2. Listing the conditions that can compromise the hemostatic process.
- 3. Stating the role of the vascular system and platelets in the hemostatic process.

Competency 2: The student will name all the factors of the procoagulant system and demonstrate knowledge of their role in coagulation by:

- 1. Explaining the process of platelet adhesion and aggregation.
- 2. Naming all the factors of the pro-coagulant system (generic, common name, and roman numeral designation)
- 3. Explaining the process and interaction of the factors in the coagulation cascade (Intrinsic, Extrinsic, and Common Pathways).
- 4. Identifying factors and the significance of the factors as related to laboratory data in the intrinsic and extrinsic system

Competency 3: The student will demonstrate knowledge of all the hereditary and acquired factor deficiencies by:

- 1. Describing Hemophilia A and B with cause, symptoms, complications, and treatments.
- 2. Describing all of the hereditary factor deficiencies with cause, symptoms, complications, and treatments.
- 3. Describing the acquired and hereditary platelet disorders with causes, symptoms, diagnosis, complications, and treatments.
- 4. Explaining the relationship between the Von-Willebrand molecule and Factor VIII.
- 5. Describing Von-Willebrand's disease with cause, symptoms, complications, and treatments.
- 6. Describing the laboratory tests associated with these deficiencies

Competency 4: The student will demonstrate knowledge of the hypercoagulable state and fibrinolysis by:

- 1. Describing the hypercoagulable state with causes, symptoms, and treatments of choice.
- 2. Explaining fibrinolysis and the fibrinolytic process.
- 3. Describing the condition known as Disseminated Intravascular Coagulation (DIC) with symptoms, primary causative agents, complications, and treatments of choice.
- 4. Giving a description of the patient's condition and laboratory results correlate the disease and/or condition with the appropriate testing and expected results.
- 5. Integrating specific aspects of natural and acquired inhibition with the coagulation process

Learning Outcomes:

- Use quantitative analytical skills to evaluate and process numerical data
- Solve problems using critical and creative thinking and scientific reasoning
- Demonstrate knowledge of ethical thinking and its application to issues in society
- Create strategies that can be used to fulfill personal, civic, and social responsibilities
- Use computer and emerging technologies effectively