

VT 111 : HEMATOLOGY AND URINALYSIS

Transcript title

Hematology and Urinalysis

Credits

4

Grading mode

Standard letter grades

Total contact hours

60

Lecture hours

30

Lab hours

30

Prerequisites

VT 108, VT 110, VT 114, VT 118.

Corequisites

VT 112, VT 113, VT 116.

Course Description

Covers laboratory techniques of hematology, serum chemistry, and urinalysis. Also explores special commercial laboratory test procedures.

Course learning outcomes

1. Describe and demonstrate proper handling of blood and urine samples.
2. List indications for and tests used for hematological and serum chemistry testing.
3. Describe and perform hematological and serum chemistry testing.
4. Describe and perform urinalysis.
5. Recognize and explain normal and abnormal findings of urinalysis and hematological and serum chemistry testing.
6. Describe indications and procedures for submitting special commercial laboratory tests.

Content outline

1. Lecture
 - a. Introduction to the Laboratory
 - b. Urine Collection and Handling
 - c. Urinalysis
 - d. Hematopoiesis
 - e. Blood Collection and Handling
 - f. Automated Analyzers
 - g. Blood Chemistries
 - h. Hematology – CBC
 - i. Hematology – morphological abnormalities
 - j. Blood Parasites

- k. Immunology
 - l. Blood Typing and Crossmatching
 - m. Hemostasis
 - n. Clinical Chemistry
 - o. Additional Hematologic Tests
 - p. Hematopoietic Disorders
2. Lab
 - a. Collection of Urine Samples
 - b. Urinalysis
 - c. Blood Smears, PCV/TP, Calculations
 - d. Retic Count, ELISA
 - e. Blood Typing and Crossmatching
 - f. Hematology
 - g. Leukopet Buffy coat
 - h. Quality Control Measures

Required materials

Required textbook and a white lab coat.