

# VT 111 : HEMATOLOGY AND URINALYSIS

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## Transcript title

Hematology and Urinalysis

## Required materials

Required textbook and a white lab coat.

## 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

Lecture I. Introduction to the Laboratory II. Urine Collection and Handling III. Urinalysis IV. Hematopoiesis V. Blood Collection and Handling VI. Automated Analyzers VII. Blood Chemistries VIII. Hematology – CBC IX. Hematology – morphologic abnormalities X. Blood Parasites XI. Immunology XII. Blood Typing and Crossmatching XIII. Hemostasis XIV. Clinical Chemistry XV. Additional Hematologic Tests XVI. Hematopoietic Disorders Lab I. Collection of Urine Samples II. Urinalysis III. Blood Smears, PCV/TP, Calculations IV. Retic Count, ELISA V. Blood Typing and Crossmatching VI. Hematology VII. Leukopet Buffy coat VIII. Quality Control Measures