
SECTION HEADING

MDLT 1125: Clinical Chemistry I

Description

Clinical Chemistry I consists of the students being introduced to methods used in quantitative analysis of chemical constituents of blood and other body fluids. Quality control is emphasized as integral to all aspects of laboratory medicine. Specific testing procedures for various organ systems are discussed and practiced.

Credits

3

Prerequisite

MDLT 1100

Corequisite

None

Topics to be Covered

1. Laboratory mathematic calculations
2. Instrumentation and analytic techniques
3. Laboratory safety and quality control
4. Point of Care Testing
5. Amino Acids and proteins
6. Nonprotein Nitrogen Compounds
7. Enzymes
8. Carbohydrates
9. Lipids and Lipoproteins

Learning Outcomes

1. Apply principles of safety, quality assurance and quality control in clinical chemistry.
2. Evaluate specimen acceptability for chemical analysis.
3. Compare and contrast human body chemistry levels under normal and abnormal conditions
4. Explain, perform, and evaluate clinical chemistry procedures for amino acids, proteins, nonprotein nitrogen compounds, enzymes, carbohydrates, lipids, and lipoproteins.
5. Discuss basic laboratory instrumentation and automation.
6. Perform laboratory calculations and evaluate quality control data using Levy Jennings rules.
7. Discuss methodologies for chemistry determinations.
8. Define terminology associated with clinical chemistry topics.
9. Correlate test results with patient conditions in regards to amino acids, proteins, nonprotein nitrogen compounds, enzymes, carbohydrates, lipids, and lipoproteins.
10. Demonstrate the correct use of basic clinical chemistry equipment and automated instrumentation.

Credit Details

Lecture: 2

Lab: 1

OJT: 0

MnTC Goal Area(s): None