Course Competency

MLT 2620L CLINICAL CHEM 2 LAB

Course Description

Performance on those analyses identified in MLT 2620 including electrophesis and quality control. Prerequisite: MLT 1610L. Corequisite: MLT 2620.

Course Competency	Learning Outcomes
Competency 1: The student will demonstrate knowledge of principles and practices of Clinical Chemistry by:	1. Communication 2. Critical thinking 3. Numbers / Data 4. Environmental Responsibility
1. Determining and applying appropriate safety procedures in the laboratory 2. Describing the concepts, components and methods for Quality Control and Quality Assurance 3. Determining common sources of error in Clinical Chemistry Analysis 4. Recognizing proper specimens for analysis in Clinical Chemistry 5. Understanding the components, methodologies, and operation of common Clinical Chemistry analyzers 6. Understanding that all practices are carried out with the patient's health and welfare at the forefront. 7. Practicing laboratory safety when working in the chemistry laboratory. 8. Selecting proper specimens for analysis 9. Performing testing on quality control material. 10. Operating available Clinical Chemistry analyzers/instrumentation	
Competency 2: The student will demonstrate knowledge of different laboratory analytes by:	1. Ethical Issues 2. Communication

	3. Computer / Technology Usage
1. Explaining the clinical significance and application of the following: 1) Protein (serum, urine and CSF) 2) Albumin 3) Cholesterol 4) Triglycerides 5) HDL-cholesterol 6) Amylase 7) Lipase 8) Alkaline Phosphatase 9) Lactate dehydrogenase 10) Creatine phosphokinase 11) Acid Phosphatase 12) ALT (alanine aminotransferase) 13) AST (Aspartate aminotransferase) 14) gamma - glutamyl transferase 2. Pipetting correct sample and reagent volumes utilizing proper techniques and devices 3. Performing testing on Clinical Chemistry analytes using available instrumentation and kits/reagents 4. Developing accurate laboratory test results. 5. Understanding that test results are developed and reported while maintaining the patient's privacy.	
Competency 3: The student will demonstrate an understanding of Pathophysiology by:	1. Ethical Issues 2. Numbers / Data 3. Critical thinking 4. Information Literacy 5. Communication
1. Explaining the functions, ailments and laboratory tests used to diagnose the following: a) Lipids and Lipoproteins b) Liver Function c) Cardiac Function d) Adrenal and Gonadal Function e) Pituitary and Thyroid Function f) Pancreatic and Gastrointestinal Function 2. Selecting and performing the appropriate test for the diagnosis and/or monitoring of the following a) Lipids and Lipoproteins b) Liver Function c) Cardiac Function d) Adrenal and Gonadal Function e) Pituitary	

and Thyroid Function f) Pancreatic and Gastrointestinal Function	

Updated: SPRING TERM 2024