

Course Competency

MLT 1610L CLN CHM 1 LAB/CL EXP

Course Description

Performance of chemistry procedures on body fluids with emphasis on manual and automated instrumentation. Prerequisite: CHM 1025L.

Course Competency	Learning Outcomes
Competency 1: The student will demonstrate knowledge of the principles and practices of clinical chemistry by:	<ol style="list-style-type: none">1. Numbers / Data2. Critical thinking3. Ethical Issues4. Communication
<ol style="list-style-type: none">1. Determining and applying appropriate safety procedures in the laboratory2. Describing the concepts, components and methods for Quality Control and Quality Assurance3. Determining common sources of error in Clinical Chemistry Analysis4. Recognizing proper specimens for analysis in Clinical Chemistry5. Understanding the components, methodologies, and operation of common Clinical Chemistry analyzers6. The student understands 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 analysis9. 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:	<ol style="list-style-type: none">1. Numbers / Data2. Critical thinking

	<ol style="list-style-type: none"> 3. Social Responsibility 4. Computer / Technology Usage
<ol style="list-style-type: none"> 1. Explaining the clinical significance and application of the following: a) glucose b) glycosylated hemoglobin c) blood urea nitrogen d) creatinine e) uric acid f) electrolytes (Na, K, Cl, CO₂) g) blood gasses h) phosphorus i) magnesium j) ammonia k) Trace elements l) iron and iron binding capacity 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. 	
<p>Competency 3:The student will demonstrate an understanding of Pathophysiology by:</p>	<ol style="list-style-type: none"> 1. Aesthetic / Creative Activities 2. Computer / Technology Usage 3. Critical thinking 4. Information Literacy 5. Ethical Issues
<ol style="list-style-type: none"> 1. Explaining the functions, ailments and laboratory tests used to diagnose the following: 1) Diabetes 2) Kidney Disease 3) Water, Electrolyte Balance 4) Acid Base Balance 2. Selecting and performing the appropriate test for the diagnosis and/or monitoring of the following: 1) Diabetes 2) Kidney Disease 3) Water, Electrolyte Balance 4) Acid Base Balance 	