Miami Dade College

Course Competency

MLT 1610 CLINICAL CHEM 1

Course Description

General principles involved in the qualitative and quantitative analysis of the chemical constituents of such body substances as blood, urine and feces in health and disease. Various techniques used in clinical chemistry as colorimetry, potentiometry, gasometry, fluorimetry and chromatography are applied in the biochemical determination performed. Prerequisite: Permission of department chairman. Laboratory fee.

Course Competency	Learning Outcomes
Competency 1: The student will demonstrate knowledge of the principles and practices of clinical chemistry by:	1. Critical thinking 2. Social Responsibility 3. Ethical Issues 4. Computer / Technology Usage
1. Describing the basic concepts, components and methods for Quality Control 2. Describing the different types of safety hazards encountered in Clinical Chemistry 3. Determining common sources of error in Clinical Chemistry Analysis 4. Selecting proper specimens for analysis in Clinical Chemistry	
Competency 2: The student will demonstrate knowledge of different laboratory analytes by:	1. Numbers / Data
1. Explaining the clinical significance of the following: 2. glucose 3. glycosylated hemoglobin 4. blood urea nitrogen 5. creatinine 6. uric acid 7. electrolytes 8. blood gasses 9. phosphorus 10. magnesium	

11. ammonia 12. Trace elements 13. iron and iron binding capacity	
Competency 3: The student will demonstrate an understanding of Pathophysiology	
1. Explaining the functions, ailments and laboratory tests used to diagnose the following: 2. Diabetes 3. Kidney Disease 4. Water, Electrolyte Balance 5. Acid Base Balance	

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