Hibbing Community College
Course Outline

MLT 2445: Clinical Chemistry 2

A. COURSE DESCRIPTION

Credits: 2
Lecture Hours/Week: 2
Lab Hours/Week: *.*

Prerequisites: This course requires the following prerequisite
MLT 1425 - Clinical Chemistry 1

Clinical Chemistry 2 covers detailed theory and representative laboratory analyses of the respiratory system and acid/base balance assessment, hepatic function and its measurements, renal function and its measurements, endocrine function, therapeutic drug monitoring and toxicology and basic nutrition.

B. COURSE EFFECTIVE DATES: 09/15/1998 - Present

C. OUTLINE OFMajor CONTENT AREAS

1. Hepatic function
2. Renal function
3. Respiratory function and acid/base balance
4. Endocrine function
5. Therapeutic drug monitoring and toxicology
6. Nutritional status

D. LEARNING OUTCOMES (General)

1. Students will be able to discuss the roles proper hydration and adequate nutrition play in health and assess health status through measurements of both intracellular and extracellular electrolytes.
2. Students will be able to demonstrate the collection, process and assess results to interpret acid/base status knowing signs, symptoms, and causes of metabolic and respiratory acidosis and metabolic and respiratory alkalosis.
3. Students will describe general anatomy and functions of the kidney and be able to assess renal health through laboratory findings and interpretation of results.
4. Students will describe general anatomy and functions of the liver and be able to assess hepatic health through laboratory findings and interpretation of results.
5. Students will be able to relate functions of the hypothalamus, pituitary, thyroid, adrenal, and reproductive glands, and the hormones produced in each, to the various outcomes in hyper and hypo conditions.
6. Students will be able to classify various therapeutic drugs based on function and understand the importance of testing for and monitoring of drugs both therapeutic and toxic in nature.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None
F. LEARNER OUTCOMES ASSESSMENT
As noted on course syllabus

G. SPECIAL INFORMATION

HCC COMPETENCIES MET:
Working Productively & Cooperatively
Communicating Clearly & Effectively

STUDENT CONTRIBUTIONS:
Students are expected to attend all lectures and labs, complete assignments on time, and spend necessary study time to pass all exams.

STUDENT ASSESSMENT SHALL TAKE PLACE USING INSTRUMENTS SELECTED/DEVELOPED BY THE COURSE INSTRUCTOR.

Curriculum Committee Approval Date: April 3, 2018

AASC APPROVAL DATE: April 18, 2018
REVIEW DATE: April 2023