

# MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

## COURSE OUTLINE

DEPT. MDLT

COURSE NUMBER: 2110

NUMBER OF CREDITS: 2

Lecture: 2 Lab: 0 OJT: 0

<b>Course Title:</b>
Clinical Chemistry II

<b>Catalog Description:</b>
Clinical Chemistry II is a continuation of MDLT 1125 Clinical Chemistry I. Students continue to develop skills in the performance of the chemical analysis of blood. Lectures continue to correlate laboratory results with clinical findings. Content of the course includes renal, acid/base balance, electrolytes, endocrinology & thyroid, gastric & pancreatic function, toxicology, and hormones.

<b>Prerequisites or Necessary Entry Skills/Knowledge:</b>
MDLT 1100, MDLT 1125, and CHEM 1150.

**FULFILLS MN TRANSFER CURRICULUM AREA(S) (*Leave blank if not applicable*)**

- ☐ Goal 1: Communication: By meeting the following competencies:
- ☐ Goal 2: Critical Thinking: By meeting the following competencies:
- ☐ Goal 3: Natural Sciences: By meeting the following competencies:
- ☐ Goal 4: Mathematics/Logical Reasoning: By meeting the following competencies:
- ☐ Goal 5: History and the Social and Behavioral Sciences: By meeting the following competencies:
- ☐ Goal 6: The Humanities and Fine Arts: By meeting the following competencies:
- ☐ Goal 7: Human Diversity: By meeting the following competencies:
- ☐ Goal 8: Global Perspective: By meeting the following competencies:
- ☐ Goal 9: Ethical and Civic Responsibility: By meeting the following competencies:
- ☐ Goal 10: People and the Environment: By meeting the following competencies:

<b>Topics to be Covered</b>
Renal
Acid/base balance
Electrolytes
Endocrinology & thyroid
Gastric & pancreatic function
Toxicology
Hormones

## Student Learning Outcomes

Apply principles of safety, quality assurance and quality control in clinical chemistry.

Evaluate specimen acceptability for chemical analysis.

Compare and contrast human body chemistry levels under normal and abnormal conditions.

Explain, perform, and evaluate clinical chemistry procedures for renal, acid-base balance, endocrinology, toxicology, hormones, gastric, and pancreatic testing.

Discuss basic laboratory instrumentation and automation.

Perform laboratory calculations as pertains to clinical chemistry.

Discuss methodologies for chemistry determinations.

Define terminology associated with clinical chemistry topics.

Correlate test results with patient conditions in regards to renal, acid-base balance, endocrinology, toxicology, hormones, gastric, and pancreatic diseases.

**Is this course part of a transfer pathway:** Yes ☐ No ☒

*\*If yes, please list the competencies below*

Revised Date: 3/29/2022