



HAGERSTOWN COMMUNITY COLLEGE CURRICULUM FORM

COURSE MODIFICATION

CC#

Prefix	Course #	Course Title	Division	Effective Term
MLT	112	Clinical Chemistry	HS	FA/26
Reason for Course Modification Submission				
<input checked="" type="checkbox"/> Course Change		<input checked="" type="checkbox"/> Other (explain): Course Description and Course Outcomes		
<input type="checkbox"/> Reactivation of Inactive Course				
Rationale for Course Modification				
MLT 112 - Clinical Chemistry (4 Credits)				
<p>The revision to the course description improves clarity, uses more concise language, and better reflects learning outcomes. It focuses on key skills and provides a broader, more inclusive overview of the course content, aligning with educational standards.</p> <p>Course learning outcomes have been revised to provide a clearer, more focused framework that emphasizes measurable, applied skills aligned with current industry and accreditation standards.</p>				
Please Indicate all Changes				
<input type="checkbox"/> Prerequisite	<input checked="" type="checkbox"/> Course Description	<input checked="" type="checkbox"/> Other Course Outcomes		
<input type="checkbox"/> Co-Requisite	<input type="checkbox"/> Credits - From: To:	<input type="checkbox"/> Course Title		
	<input type="checkbox"/> Contact Hrs for:	<input type="checkbox"/> Load for:		
<input type="checkbox"/> Course #	Lecture From: To:	Lecture From: To:		
	Lab From: To:	Lab From: To:		
	Clinical From: To:	Clinical From: To:		
CURRENT Course Information <i>**(Copy/Paste from Catalog)</i>				
MLT 112 - Clinical Chemistry (4 Credits)				
<p>This course studies the basic principles and techniques of biochemistry for clinical and laboratory applications. This specifically addresses enzymes, hormones, proteins, lipids, carbohydrates, electrolytes, and acid-base balances.</p> <p>Prerequisite Take BIO-116, CHM-101, and MLT-101.</p> <p>Corequisite Take MLT-112L.</p> <p>Semesters Offered Spring Only, All Years</p> <p>Student Learning Course Outcomes: Upon successful completion of this course, students will be able to:</p> <ol style="list-style-type: none">1. Demonstrate the use of basic chemistry supplies and equipment;2. Demonstrate laboratory safety and standard precautions;3. Demonstrate an understanding of fundamental concepts to analytic procedure central to clinical chemistry;4. Perform basic calculations and analyze acceptability for quality control programs used in laboratories;				



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5. Define basic principles, operations, maintenance, and quality assurance of laboratory instrumentation;
6. List reference intervals for major analytes and interpret patient results;
7. Review physiology and function and recognize abnormal results; and
8. Assess pre-analytic, analytic, and post-analytic factors affecting results.

PROPOSED Course Information ***(PLEASE put changes in red)*

MLT 112 - Clinical Chemistry (4 Credits)

This course ~~studies the basic principles and techniques of biochemistry for clinical and laboratory applications. This specifically addresses enzymes, hormones, proteins, lipids, and carbohydrates, electrolytes, and acid-base balances.~~ **specializes in the measurement of chemical components in the blood for the purpose of diagnosis, prognosis, and the treatment of disease. It emphasizes analytical principles, sources of error, and quality control. Laboratory procedures include analysis of chemical components. Students will learn to correlate laboratory results with disease states.**

Prerequisite

Take BIO-116, CHM-101, and MLT-101.

Corequisite

Take MLT-112L.

Semesters Offered

Spring Only, All Years

Student Learning Course Outcomes:

Upon successful completion of this course, students will be able to:

1. **Explain biochemical theory and human physiology correlations for routine tests in clinical chemistry.**
2. **Interpret clinical chemistry data to identify sources of error and troubleshoot chemistry test results.**
3. Describe basic principles, operations, maintenance, and quality assurance of laboratory instrumentation.
4. Assess pre-analytic, analytic, and post-analytic factors affecting results
5. **Correlate abnormal results with clinical conditions.**

If this Course is adding/removing developmental requisites, have you confirmed this change with Developmental Education? *(please have them sign below)*

Date:

Developmental Education Director/Faculty:

APPROVAL SIGNATURES

Date:

Requesting Faculty: Shawnda Coon

10/08/2025

Requesting Division Director: Jeffrey Telemeco

10/13/2025

Curriculum Committee Co-Chair:

VPAASS, Co-Chair: