

**Common Course Outline**  
MLTC 255  
**Clinical Internship-Chemistry and Urinalysis/Body Fluids**  
**2 Credits**

**Community College of Baltimore County**

**Description**

**MLTC 255 – Clinical Internship-Chemistry and Urinalysis/Body Fluids** engages students to experience a 15-day internship at an affiliated hospital or reference laboratory. The course provides students the ability to gain practical experience in manual and automated clinical chemistry and urinalysis/body fluid procedures, including problem-solving, evaluation of quality control results, and instrument maintenance.

**2 Credits: 15 day internship**

**Prerequisite:** MLTC 202

**Corequisite:** MLTC 250

**Overall Course Objectives**

Upon completion of this course students will be able to:

1. comply with standard operating procedures for specimen handling and distribution;
2. follow departmental protocol and demonstrate safe work practices;
3. perform, evaluate, and document quality control practices;
4. perform the various periodic (daily, weekly) maintenance procedures for each piece of equipment used during the clinical rotation in clinical chemistry and urinalysis/body fluids;
5. state the confidentiality policy of the facility as related to testing procedures and reporting, according to Health Insurance Portability and Accountability Act (HIPAA) guidelines;
6. operate automated chemistry and urinalysis instruments with minimal supervision and produce results within acceptable ranges;
7. prepare reagents, calibrators, and control materials, obtaining results within acceptable quality assurance limits and properly documenting results;
8. demonstrate the ability to organize workflow;
9. recognize reference ranges and critical values for routine chemistry tests;
10. calculate dilutions, anion gap, 24-hour creatine clearance, and low density lipoprotein (LDL);
11. perform routine urinalysis, including physical examination, chemical examination, and microscopic examination; and
12. discuss or perform cerebrospinal fluid analysis, fecal occult blood, urine/serum pregnancy testing, and analysis of other body fluids.

## **Major Topics**

- I. Clinical Chemistry Laboratory
  - A. Automated and semi-automated instrumentation
  - B. Quality control
  - C. Safety
  - D. Specimen preparation
  - E. Electrolyte analysis and calculation of anion gap
  - F. Routine chemistry testing
  - G. Unusual tests
- II. Urinalysis Laboratory
  - A. Automated and semi-automated instrumentation
  - B. Quality control
  - C. Safety
  - D. Specimen preparation
  - E. Routine urinalysis testing
  - F. Unusual tests
- III. Other Body Fluids
  - A. Quality control
  - B. Safety
  - C. Specimen preparation
  - D. Routine fluid testing

## **Course Requirements**

Grading procedures will be determined by the individual faculty member but will include the following:

### **Grading/exams**

- A technical evaluation/checklist
- A laboratory practical
- A clinical objective write-up
- A professional evaluation
- A post-Internship exam

Written Assignments: Students are required to use appropriate academic resources.

### **Other Course Information**

This course is a Medical Laboratory Technology program core course.

This course is part of a program sequence, that requires admission to the program.

This course is offered in the fall only.