

# Common Course Outline

MLTC 256

## Clinical Internship-Clinical Microbiology

2 Credits

### Community College of Baltimore County

#### Description

**MLTC 256 – Clinical Internship- Clinical Microbiology** engages students to experience a 15-day internship at an affiliated hospital laboratory or reference laboratory. The course provides students the ability to gain practical skills in manual and automated microbiology procedures, including problem-solving, evaluation of quality control results, and instrument maintenance.

**2 Credits:** 15 day internship

**Prerequisites:** MLTC 131; MLTC 231

**Corequisite:** MLTC 250

#### Overall Course Objectives

Upon completion of this course students will be able to:

1. comply with the standard operating procedures for specimen handling and distribution;
2. follow departmental protocol and demonstrate safe work practices;
3. perform, evaluate, and document quality control procedures;
4. perform the various periodic (daily, weekly) maintenance routines for each piece of equipment used during the clinical rotation in clinical microbiology;
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 microbiology instruments with minimal supervision and produce results within acceptable ranges;
7. prepare and stain slides with Gram stain and read slides microscopically within acceptable ranges;
8. plate a variety of specimens on the correct media and incubate in the proper environment;
9. select, isolate, and identify suspected pathogenic organisms from a variety of media;
10. select and inoculate the proper biochemical media and interpret results to definitively identify suspected pathogens from a variety of specimen types;
11. recognize and identify normal flora from a variety of specimen sites;
12. perform correct inoculation procedures for suspected anaerobic organisms;
13. observe or perform correct inoculation and isolation techniques for viruses, fungi, and mycobacteria;
14. perform and interpret routine antibiotic susceptibility testing; and
15. perform concentration and staining techniques, and identify organisms present for fecal specimens tested for ova and parasites.

## **Major Topics**

- I. Microbiology Laboratory
  - A. Automated and semi-automated instrumentation
  - B. Quality control
  - C. Safety
  - D. Specimen preparation
  - E. Slide preparation and staining
  - F. Routine and special plating media
  - G. Incubation requirements
  - H. Routine biochemical testing
  - I. Antimicrobial susceptibility testing
  - J. Unusual tests
- II. Mycology (Fungi) and Mycobacteria
  - A. Automated and semi-automated instrumentation
  - B. Quality control
  - C. Safety
  - D. Specimen preparation and staining
  - E. Routine testing
  - F. Unusual tests
- III. Parasitology
  - A. Quality control
  - B. Safety
  - C. Specimen preparation and staining
  - D. Identification of intestinal and blood parasites

## **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.

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