

Common Course Outline
MLTC 101
Introduction to Medical Laboratory Technology
3 Credits

Community College of Baltimore County

Description

MLTC 101 – Introduction to Medical Laboratory Technology provides a brief survey of all areas of a clinical laboratory including basic laboratory calculations, safety, and legal and ethical issues.

3 Credits

Corequisites: MATH 083 and ENGL 101

Overall Course Objectives

Upon completion of this course students will be able to:

1. solve basic laboratory math problems, such as metric conversions, dilutions, solutions, and quality control calculations;
2. develop research skills by participating in a library instruction session;
3. demonstrate library usage skills by completing a journal article assignment;
4. demonstrate oral communication skills by presenting a journal article review to the class;
5. demonstrate awareness of fire, electrical, and chemical safety;
6. demonstrate awareness of standard precautions and Tuberculosis (TB) precautions;
7. define basic medical terms and abbreviations as related to the practice of laboratory medicine;
8. discuss the importance of maintaining confidentiality of patient information and records;
9. identify hospital departments and sections of the Pathology Department;
10. state basic information about the type of tests performed in each major laboratory area: hematology, coagulation, blood bank, immunology, clinical chemistry, and histology;
11. discuss the importance of quality control procedures in day-to-day laboratory operations; and
12. participate in a tour of a clinical laboratory.

Major Topics

- I. Basic medical terminology
- II. Laboratory mathematics
- III. Laboratory safety: electrical, fire, chemical, standard precautions and TB precautions
- IV. Patient confidentiality and Health Insurance Portability and Accountability Act (HIPAA)
- V. Medical ethics
- VI. Laboratory regulatory agencies
- VII. Clinical laboratory organizational structure and job classifications

- VIII. Quality control in the laboratory
- IX. Hematology
- X. Coagulation
- XI. Blood banking
- XII. Immunology
- XIII. Medical microbiology and parasitology
- XIV. Clinical chemistry and urinalysis
- XV. Histology

Course Requirements

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

Grading/exams

- A library assignment for a journal article review
- Weekly assignments and quizzes
- A laboratory math assignment
- A minimum of three (3) exams
- Final examination

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

Other Course Information

This course is the first course in the AAS degree Medical Laboratory Technology (MLT) and Histotechnology (HSTO) programs housed in the School of Health Professions.

Successful completion of this course is prerequisite for admission to the MLT and HSTO program.

Safety and confidentiality issues will be presented by an on-line provider, Learning Harbor.