
Course Prefix No	MLT 101
Course Title:	INTRODUCTION TO MEDICAL LABORATORY TECHNOLOGY
Lecture hrs/wk:	2.0
Lab hrs/wk:	0.0
Credit hrs/semester:	2.0

[Distance Learning Attendance/VA Statement](#)

[Textbook Information](#)

[Student Code and Grievance Procedure](#)

COURSE DESCRIPTION

This course provides an introduction to laboratory medicine, including techniques for routine laboratory procedures, medical terminology, safety, and an overview of each area within the laboratory.

COURSE COMPETENCIES

Upon completion of this course the student will be able to:

1. Describe the hospital clinical laboratory including departments, personnel and educational requirements.
2. Identify elements of professionalism in the clinical lab.
3. Describe several professional and regulatory organizations affiliated with Medical Laboratory Technology.
4. Perform laboratory calculations.
5. Describe basic equipment and/or instrumentation used in the clinical lab.
6. Identify and/or define prefixes, suffixes and terms used in the clinical lab.
7. Recognize safety precautions in the clinical laboratory.
8. Perform routine phlebotomy.
9. Describe quality control and its use in the clinical lab.
10. Demonstrate effective written and/or oral communication techniques.
11. Recognize the elements of critical thinking.
12. Promote professionalism in dress, conduct and attitude.

PERFORMANCE OBJECTIVES

1. Given lecture notes and text, the student will describe the clinical lab by listing the following:
 - a. departments of lab and functions of each
 - b. titles of personnel working in the main departments
 - c. educational requirements for each title listed in b above.
2. Utilizing lecture notes and text, the student will identify professionalism by describing ten desirable qualities that laboratory personnel should display and relating these qualities with their effects on laboratory testing.

3. Given a list of professional and regulatory organizations through lecture, the student will identify the organization by name and describe the function of each organization as it relates to the clinical lab.
 4. Provided with text, lecture notes, and homework assignments, the student will perform laboratory calculations involving metric system conversions, temperature conversions, scientific notation, and dilutions.
 5. Given lecture notes, text and demonstrations, the student will describe and/or identify the following laboratory equipment/instrumentation:
 - a. glassware – beakers, pipets, cylinders, flasks, tubes
 - b. centrifuges
 - c. balances
 - d. microscope – parts, types
 - e. H₂O – distilled, deionized
- NOTE:** The student will also pass a practical exam related to laboratory equipment/instrumentation.
6. Given lecture notes, and text, the student will demonstrate knowledge of medical terminology by passing a vocabulary quiz.
 7. Utilizing lecture notes and text, the student will recognize potential biohazards, chemical hazards, and physical hazards in the laboratory and the safety rules that apply to each.
 8. Utilizing lecture notes, text, and DVDs, the student will list equipment and procedures used in routine blood collection and perform a venipuncture and skin stick to the satisfaction of the instructor.
 9. With the aid of lecture notes and text, the student will be able to calculate standard deviation and relate this calculation to quality control used in the lab.
 10. Utilizing library resources, the student will compose a paper on a selected topic and when applicable report information learned through the research process to the class to count as part of the final average.
 11. Given lecture notes, the student will list steps used in critical thinking and apply this information in problem solving and decision making.
 12. The student will demonstrate a professional attitude by adhering to dress codes and written policies.

NOTE: Proficiency in the above objectives will be established by scoring a 70% average or above on written tests and exercises. Additional objectives are located at the beginning of each chapter in the text.

COURSE REQUIREMENTS

1. Attend lecture consistently. The maximum allowable absence is 10% of required class time.
2. Students will adhere to the student code of conduct as described in the York Technical College Catalog and Handbook. Students will conduct themselves with dignity and maintain high standards of responsible citizenship. Any student caught cheating or involved in any other academic dishonesty will be given a grade of zero and will be subject to further disciplinary action

EVALUATION STRATEGIES/GRADING

In order to successfully complete MLT 101 the following requirements must be met:

1. Take and pass 2 written quizzes pertaining to medical terminology.
2. Pass a practical exam of laboratory equipment.
3. Write and/or present a paper on a selected topic.
4. Pass 2 tests with a minimum average of 70%.

Grading scale: 90 - 100 = A
 80 - 89 = B
 70 - 79 = C
 60-69 = D
 <60 = F

- **A grade of C or better** must be obtained in this class for progression in the MLT program.

Note: If a student must be absent on the day of a test, he/she must notify the instructor prior to test time in order to be allowed to take a make-up test. A grade of zero (0) will be assigned if the instructor is not notified. If the student exceeds the maximum absences of 10%, this may result in his/her being dropped from the course and from the MLT program.

ENTRY-LEVEL SKILLS

The student should display basic reading, writing, and mathematical skills.

PREREQUISITES: None

CO-REQUISITES: None

Disabilities Statement: Any student who feels s/he may need an accommodation based on the impact of a disability should contact the Special Resources Offices (SR) at 803-327-8007 in the 300 area of Student Services. The SRO coordinates reasonable accommodations for students with documented disabilities.