



## MED 101: Introduction to Clinical Laboratory Science

This course explores the nature and scope of medical laboratory work. The primary focus is the role of the laboratory in the delivery of health care in various settings, emphasizing types of health care facilities, regulatory agencies affecting laboratory operations, responsibilities, duties and professional conduct expected of medical laboratory technicians, standard precautions, safety in the laboratory, laboratory mathematics and quality assessment, and medical terminology and procurement of blood specimens. A phlebotomy workshop develops the fundamental skills required to procure and prepare blood specimens for testing. Prerequisite: Medical Laboratory Technology and Phlebotomy students only. Other students considering a career in medical laboratory science may request instructor's approval to take the course. Three hours of lecture per week. Instructional Support Fee applies. 3 credits Gen.Ed. Competencies Met: Critical Thinking, Ethical Dimensions, Information Literacy and Written Communication.

### Course Student Learning Outcomes

1. Discuss the history of Clinical Laboratory Science to present day.
2. Describe the role of the laboratory in health care delivery.
3. Discuss the hospital and laboratory organizational structure.
4. Discuss the impact of regulatory agencies and legislation on laboratory operations.
5. Discuss professionalism and the appropriate ethical conduct required to work in a clinical setting and in the delivery of health care to the diverse ethnic population in the service area.
6. Discuss the duties and responsibilities of phlebotomists and clinical laboratory technicians in the various types of laboratory and healthcare facilities.
7. Communicate appropriately using proper medical and laboratory terminology.
8. Discuss and utilize standard safety practices as outlined by OSHA and CDC.
9. Describe the type of computer applications used in laboratory information system.

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1. Utilize the basic concepts of laboratory mathematics inclusive of Systems of Measurement involving metric unit conversion and temperature conversions.

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1. Discuss quality control and quality assurance applications necessary to ensure reliability of test results and equipment.

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1. List venipuncture and micro sampling blood collection equipment including the tube additives and color-coding system.

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1. List the steps of both the venipuncture and micro sampling procedures.

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1. Prepare materials and supplies for blood collection.

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1. Perform successful venipuncture on the training arms.

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1. Describe the preparation of blood specimen for testing.

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1. Follow the program safety policies in the CLS classroom.

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1. Prepare a written report approved by the instructor using LRC references and internet sources.

19. Work cooperatively with fellow students.

**Credits:** 3

**Program:** Medical Laboratory Technology