

Virginia Western Community College

MDL 105

Clinical Phlebotomy I

Prerequisites

None

VWCC Course Description

Introduces basic medical terminology, anatomy, physiology, components of health care delivery and clinical laboratory structure. Teaches techniques of specimen collection, specimen handling, and patient interactions. This course introduces the student to the techniques of obtaining blood samples from patients in health care settings. Students will learn venipuncture, heel, and finger stick techniques for adult and pediatric patients. Students will also be introduced to techniques of specimen preparations, interpretation of nurses and physicians orders, and proper techniques for handling of blood specimens.

Semester Credits: 3

Lecture Hours: 2

Lab Hours: 5

Required Materials

Textbook

Phlebotomy Essentials, 7th Edition, by Ruth E. McCall, Jones and Bartlett Learning, Burlington, MA 01803, 2021. ISBN-13: 978-1284209945 ISBN-10: 128209946

Other Required Materials:

Phlebotomy Exam Review, fourth edition
Website thePoint

VWCC COURSE OUTCOMES

- Define and explain basic medical terminology related to phlebotomy.
- Interpret laboratory orders from nurses and physicians accurately.
- Describe the basic human anatomy, with emphasis on the circulatory system.
- Demonstrate ability to obtain blood samples from laboratory models such as simulated arms.

- Apply proper techniques for handling and processing laboratory blood specimens.

Note to Instructors

- This outline is tentative and subject to change
- Study guides/ questions are provided at the discretion of the instructor

VWCC TOPICAL DESCRIPTIONS

The Healthcare Setting	
Chapter 1: Past and Present and the Healthcare Setting	• Describe the evolution of phlebotomy and the role of the phlebotomist today • Describe the traits that form the professional image and identify national organizations that support professional recognition of phlebotomists. • Describe the basic concepts of communication as they relate to healthcare and how appearance and nonverbal messages affect the communication process • Describe proper telephone protocol in a laboratory or other healthcare setting • Compare types of third-party payers, coverage, and methods of payment to the patient, provider, and institutions. • Hospital organization and identifying the healthcare providers in the inpatient facility • List the clinical areas of the laboratory and the types of laboratory procedures performed in the different areas
Chapter 2: Quality Assurance and Legal Issues	• Describe the different levels of personnel in the clinical laboratory and how CLIA regulations affect their job description • Identify national organizations, agencies, and regulations that support quality assurance in healthcare • Define quality and performance improvement measurements as they relate to phlebotomy • List and describe the components of a quality assurance program and identify areas in phlebotomy subject to quality control

Chapter 3: Infection Control, Safety, First Aid, and Personal Wellness

- List areas in phlebotomy subject to quality control and identify quality control procedures associated with each
- Demonstrate knowledge of the legal aspects associated with phlebotomy procedures by defining legal terminology and describing situations that may have legal ramifications
- Identify the components of the chain of infection and give examples of each, describe infection-control procedures used to break the chain, identify four functions of infection-control programs
- Describe proper procedures for hand hygiene, putting on and removing protective clothing, and entering the nursery or neonatal intensive care unit
- Describe standard and transmission-based precautions and identify the organizations that develop them
- State safety rules to follow when working in the laboratory and in-patient areas
- List examples of blood-borne pathogens and describe their means of transmission in a healthcare setting

Blood Collection Procedures

Chapter 7: Blood Collection Equipment, Additives, and Order of Draw

- List, describe, and explain the purpose of the equipment and supplies needed to collect blood by venipuncture
- Compare and contrast antiseptics and disinfectants and give examples of each
- Identify appropriate phlebotomy needles by length, gauge, and any associated color coding
- List and describe evacuated tube system (ETS) and syringe system components, explain how each system works and tell how to determine which system and components to use
- Identify the additives used in blood collection, list the various additives within each category, and describe how each additive works
- Describe the color coding used to identify the presence or absence of additives in blood collection tubes and name the additive, laboratory

department, and individual tests associated with the color-coded tubes

- List the “order of draw” when multiple tubes are being collected and explain why it is important

Chapter 8: Venipuncture Procedures

- Describe the test request process, identify the type of requisitions used, and required information
- List and define test status designations, status priorities, and describe the procedure to follow for each status
- Describe proper “bedside manner” and how to handle special situations associated with patient contact
- Explain the importance of patient identification, how to verify, how to handle discrepancies, and what to do if a patient’s ID band is missing
- Describe how to prepare patients for testing, how to answer inquiries concerning tests, and what to do if a patient objects to a test
- Describe fasting and other diet requirements and what to do when diet requirements have not been met
- Describe each step in the venipuncture

Overview of the Human Body

Chapter 4: Medical Terminology

- Identify basic word elements and medical terms
- State the meaning of common word roots, prefixes, and suffixes and identify unique plural endings
- State the meaning of medical terms composed of elements
- Demonstrate proper pronunciation of medical terms by using the general guidelines
- State the meaning of common abbreviations
- Identify items currently on the Joint Commissions “Do not use” list of items for possible future inclusion

Chapter 5: Human Anatomy and Physiology Review

- Identify and describe body positions, planes, cavities, and directional terms
- Define homeostasis and primary processes of metabolism
- Identify and describe the structural components of cells and the four basic types of tissue

Chapter 6: The Circulatory System

- Describe the function and identify the components of major structures of each body system
- List disorders and diagnostic tests commonly associated with each body system
- Identify the layers and structures of the heart and describe their function
- Describe the cardiac cycle and how an ECG tracing related to it; also explain the origins of heart sounds and pulse rates
- Describe how to take a blood pressure reading and explain what they represent
- Identify the two main divisions of the vascular system, describe the function of each and trace the flow of blood throughout the system
- Identify the different types of blood vessels and describe the structure and function of each
- Name and locate major arm and leg veins and describe the suitability of each for venipuncture
- List the major constituents of blood, describe the function of each of the formed elements, and
- differentiate between serum, plasma, and whole blood
- Describe how ABO and Rh blood types are determined and explain the importance of compatibility testing prior to transfusion
- Define hemostasis and describe basic coagulation and fibrinolysis processes
- Identify the structures and vessels and describe the function of the lymphatic system
- List the disorders and diagnostic tests of the circulatory system

[TITLE IX STATEMENT](#)

[ADA STATEMENT](#)