Course Name: Certificate in Phlebotomy: Theory and Practical

Contact Hours: 150 hours

Pre-requisite: N/A

Abstract

Comprehensive 6-month course that equips students with foundational and advanced skills in Phlebotomy through structured theoretical modules and hands-on clinical training.

Phlebotomy is the process of making a puncture in a vein, usually in the arm or hand, with a cannula for the purpose of drawing blood. The procedure itself is known as a venipuncture, which is also used for intravenous therapy. A person who performs a phlebotomy is called a phlebotomist, although most doctors, nurses, and other technicians can also carry out a phlebotomy.

Students are equipped with the skills to perform blood draws, manage specimens, and ensure patient safety. The curriculum covers proper phlebotomy techniques, specimen handling, point-of-care testing, and compassionate patient care.

Emphasis on safety, professionalism, accuracy and patient-centered care in blood collection practices.

Target Audience

This course is geared towards:

- Nurse, Medical Assistant, Lab Technician
- Healthcare Professional
- Geriatric Care Givers
- Person interested in a career as a Phlebotomist

Learning Outcomes

On completion of this course, learners will be able to:

- Achieve professional recognition as a qualified registered Phlebotomy Technician.
- Demonstrate readiness for clinical practice in laboratories, hospitals, and clinics through structured training.
- Apply practical and theoretical knowledge to perform venipuncture and capillary punctures efficiently and safely.
- Exhibit proficiency in specimen collection and handling, ensuring accuracy and integrity of samples.
- Implement infection control protocols and patient safety measures in all clinical procedures.
- Enter the healthcare workforce job-ready, equipped with the skills required for entry-level employment.
- Pursue career advancement opportunities within the healthcare sector, supported by a recognized qualification.

Course Content

Topic Area	Core Objectives
1. Introduction to Phlebotomy and The Healthcare Environment	• Healthcare systems and laboratory structure • Basic medical terminology • Professionalism and communication in a healthcare setting
2. Medical Terminology	• Prefixes, suffixes, and root words commonly used in medicine and laboratory science • Abbreviations related to anatomy, pathology, diagnostics, and laboratory testing • Proper use and interpretation of medical terms in requisitions, reports, and patient records • Avoidance of error-prone abbreviations • Correct spelling and pronunciation • Understanding terminology related to laboratory results and critical values
3. Anatomy, Physiology and Infection Control	• Circulatory and Lymphatic systems • Vein Identification and site selection • Universal Precautions and PPE • Infection Control and Biohazard safety
4. Circulatory System	• Structure and function of the heart, arteries, veins, and capillaries • Blood flow pathways (systemic vs pulmonary circulation) • Composition and function of blood components (RBCs, WBCs, platelets, plasma) • Vein selection for venipuncture • Relationship between circulation and specimen quality • Impact of circulatory disorders on specimen collection
5. Venipuncture Procedures	• Patient identification and consent • Site selection and vein assessment • Step-by-step venipuncture technique • Post-procedure care and complication prevention • Infection control and PPE • Prevention of hemolysis • Handling difficult draws
6. Venipuncture Techniques, Equipment Handling, Blood Equipment, Additives and Order of Draw	• Types of Blood collection tubes and Additives • Order of draw, Standard Order of Draw • Correct order of draw to prevent additive carryover • Consequences of incorrect order of draw • Venipuncture methods: Single and Multi-draw • Pre-and post-venipuncture procedures • Proper Patient Identification and Labeling of specimen • Specimen collection, handling and quality assurance

	criterion • Blood collection equipment (needles, holders, syringes, evacuated tubes) • Tube additives (EDTA, citrate, heparin, clot activators, gel separators) • Blood cultures • Sodium citrate (light blue) • Serum (red, gold, SST) • Heparin (green) • EDTA (lavender, pink) • Glycolytic inhibitor (gray) • Tube inversion requirements
7. Capillary Puncture Equipment and Procedures & Special Collections and Pediatric Techniques	• Capillary collection • Geriatric and pediatric phlebotomy considerations • Blood cultures, Glucose tolerance tests • Chain of custody procedures • Equipment: lancets, microcollection containers, warming devices • Sites: fingertip (adults), heel (infants) • Indications for capillary vs venous collection • Proper depth and site selection • Order of draw for capillary specimens • Avoidance of tissue fluid contamination
8. Point-of-Care Testing (POCT)	• Definition and purpose of POCT • Common POCT devices (glucometers, rapid tests) • Quality control and documentation requirements • Operator competency • Device calibration and QC • Result reporting and limitations of POCT
9. Pre-Examination / Pre-Analytical Considerations	• Patient preparation (fasting, medications, posture) • Specimen collection timing • Labeling, transport, and storage requirements • Causes of pre-analytical errors • Impact of hemolysis, clotting, and contamination • Rejection criteria for specimens
10. Urine and Other Non-Blood Specimens and Tests	• Types of urine specimens (random, first morning, timed, 24-hour) • Collection and preservation methods • Other specimens: sputum, stool, semen, swabs • Patient instruction for proper collection • Avoiding contamination • Timely delivery to the laboratory
11. Arterial Puncture Procedures	• Indications for arterial blood collection (ABGs) • Site selection (radial, brachial, femoral) • Allen test and patient safety • Use of heparinized syringes • Air bubble elimination • Post-puncture pressure and complication prevention

12. Laboratory Information, Specimen Handling, and Processing	• Laboratory workflow and specimen tracking • Centrifugation, aliquoting, and storage • Confidentiality and data integrity • Chain of custody • LIS usage and documentation • Compliance with quality management systems
13. Complications, Legal Aspects and Quality Assurances	• Common complications • Legal and ethical issues; liabilities, criminal justice and civil rights • HIPAA and Patient confidentiality • Quality control and error prevention
14. Clinical Practicum and Final Competency Assessment	• Clinical rotation: minimum of 60 successful venipunctures • Competency assessment: observation