



**Tata Institute of Social Science**  
School of Vocational Education  
Deemed University as under Section 3 of the University Grants Commission Act 1956'

## **Certificate in Phlebotomy Technology**

### **Introduction and Course Objectives:**

Phlebotomy technicians are responsible for collecting and preparing blood samples which undergo laboratory testing. It is the responsibility of a phlebotomist to make their patients pacified in order to be able to conclude the process of extraction and collection of blood in a smooth manner.

He or she should maintain safe, secure, and healthy work environment by following standards and procedures; complying with legal regulations.

### **Main Concepts:**

The Students will learn about:

- Safety and Infection Control
- Bio-Medical Waste Management
- Investigation Slips
- Equipment and Supplies
- Assist Patient
- Appropriate Site for Obtaining Blood Samples
- Draw Blood Specimens from Patients
- Label the Blood Samples
- Porter the Samples
- Update Patient Records
- Collate and Communicate Health Information
- Ensure Availability of Medical and Diagnostic Supplies
- Practice Code of Conduct
- Maintain Work Environment
- Managing Work
- Act Within Limits of Competency and Authority
- Work Effectively with others
- Quality Control

### **Learning Objectives:**

The learner will be able to:

- Ensure safety precautions.
- Effectively use gloves and lab coat to prevent infections.
- Comprehend the importance of Hand Hygiene.
- Ensure proper waste disposal.

- Adapt to the appropriate procedures, policies and protocols.
- Apply safety measures and standard precautions.
- Perform segregation of waste materials.
- Demonstrate use of different bins.
- Identify accuracy of the labelling.
- Identify suitable containers.
- Observe safety of wastes.
- Practice transportation of wastes.
- Report spillages.
- Prioritize maintenance of accurate records of information.
- List the patient details to be filled in the test request form.
- Demonstrate the importance of verifying the patient's details.
- Discuss the steps for interpreting an investigation slip.
- Enable the test procedure.
- Understand importance of taking patient's history.
- Understand requirement of a written consent.
- Identify the laboratory equipment and supplies.
- Display the best practices of phlebotomy procedure.
- Describe the equipment for phlebotomy procedure.
- Understand the precautionary measures of phlebotomy.
- Enable hygiene habits.
- Demonstrate the importance of gloves and lab coat in preventing infection.
- Understand the importance of comforting patients.
- Identify ways to inform and comfort patients.
- Identify forearm.
- Locate a vein.
- Find right side for inserting needle.
- Estimate the size of the needle.
- Apply tourniquet.
- Prepare an appropriate site for obtaining blood samples.
- Identify the correct way of anchoring a vein.
- Locate the veins.
- Find the right site for entering the vein.
- Show the way to release the tourniquet.
- Demonstrate how to withdraw of needle.
- Use appropriate equipment.
- Practice hand hygiene.
- Identify the duties of phlebotomy technician in case of labelling of blood samples.
- Identify the key elements in labelling.
- Execute effective disposal of laboratory waste and perform the hand hygiene.
- Demonstrate proper way of transferring the blood units.
- Practice proper storing and delivering of samples.
- Keep the patients record carefully.
- Update patient medical record.
- Perform basic clerical tasks.
- Display the importance of checking label of blood samples.
- Display the importance of keeping track of patient data and information.
- Maintain various safety and sanitation records.
- Utilise medical databases or other computer programs.
- Describe the procedure to respond to queries of patients.

- Explain different forms to communicate effectively with patients of all age, caste, gender and other characteristics.
- Demonstrate communication methods that meet an individual level of understanding.
- Identify sources of information and provide relevant information to the individual.
- Explain the term confidentiality and adhere to guidelines provided by one's organisation or regulatory body relating to confidentiality.
- Respect the individual's need for privacy and describe situations where confidential information may need to be passed on
- Describe the importance of record maintenance at the end of interaction
- Maintain adequate supplies of medical and diagnostic supplies.
- Describe the procedure to calculate actual and accurate demand.
- Describe factors affecting future demand of supplies.
- Handle situations of stocks unavailability.
- Comprehend the protocols and guidelines with respect to the work place.
- Comply with the organisational systems and requirements.
- Identify the boundary of the role and responsibility.
- Maintain competence within the role and field of practice.
- Use relevant protocols and guidelines.
- Promote and demonstrate good practices.
- Identify and manage potential and actual risks to the quality and patient safety.
- Maintain personal hygiene.
- Identify individual responsibilities in relation to maintain workplace health safety and security requirements.
- Comply with health, safety and security procedures for the workplace.
- Report any identified breaches in health, safety, and security procedures to the designated person.
- Identify potential hazards and breaches of safe work practices.
- Correct any hazards that individual can deal with safely, competently and within the limits of authority.
- Report promptly and accurately the hazards that individual is not allowed to deal with, to the relevant person and warn other people who may get affected.
- Follow the organisation's emergency procedures promptly, calmly, and efficiently.
- Clearly establish, agree, and record the work requirements.
- Utilise time effectively.
- Ensure his/her work meets the agreed requirements.
- Treat confidential information correctly.
- Work in line with the organisation's procedures and policies and within the knowledge and understanding.
- Observe the protocols and guidelines relevant to phlebotomy technician's role and field of practice.
- Interpret the roles and responsibilities within the organisation.
- Recognise the boundary of the role and responsibility and seek supervision/ assistance when situations are not within the competence and authority of phlebotomy technician.
- Possess knowledge competent in phlebotomy technician's role.
- Promote and demonstrate good practice as an individual as well as a team member.
- Practice responsibilities with respect to workplace safety and security.
- Examine own work and make continuous improvements.
- Interact with co-workers.
- Effectively work in a team.
- Ensure good and clear communication.
- Understand the importance of passing information and integrating one's work with others.
- Describe the methods to solve problems.
- Importance of following policies and procedures of organisation.

- Explain the importance of conducting appropriate research and analysis.
- Explain about evaluating potential solutions for problems.
- Explain the importance of participating in various education programs.
- Describe the purpose of reading dental and medical journals and publications.
- Explain the importance of reporting any identified breaches and hazards in health, safety, and security procedures.
- Explain the importance of following the organisation's emergency procedures promptly, calmly and efficiently.
- Explain about completing any health and safety records legibly and accurately.

### **Course Content:**

1. Safety and Infection Control
  - Standard Precautions
  - Gloves and Lab Coat or Gown
  - Disposing Items in Appropriate Containers
  - Cleaning up any Blood Spills
  - Other Precautions
2. Bio-Medical Waste Management
  - Procedures, Policies and Protocols
  - Safety Measures and Standard Precautions
  - Segregating the Waste Materials
  - Use of Different Bags
  - Checking Accuracy of the Labelling
  - Confirm Suitability of Containers
  - Make Waste Safe for Transfer
  - Transport and Disposal of Waste
  - Report and Deal with Spillages
  - Maintain Accurate Records of Information
3. Investigation Slips
  - Interpreting Investigation Slips
  - Introduce Yourself
  - Verify Patient's Identity
  - Inquire for Allergies and Phobias
  - Make the Patient Comfortable
  - Brief the Patient about the Test
  - Record Patient's History
  - Take Patient's Consent
  - Prepare for Investigation
4. Equipment and Supplies
  - Phlebotomy
  - Best Practices in Phlebotomy
  - Equipment Collection
  - Phlebotomy Precautions
5. Assist Patient
  - Deal with Patients
  - Standard Precautions
  - Provide a Calm Environment

#### 6. Appropriate Site for Obtaining Blood Samples

- Inspect the Antecubital Fossa Forearm
- Locate a Vein
- Inserting Needle at the Right Site
- Determine the Size of Needle
- Apply Tourniquet
- Prepare an Appropriate Site for Obtaining Blood Sample

#### 7. Draw Blood Specimens from Patients

- Ask the Patient to Form a Fist
- Anchor the Vein
- Enter the Vein Swiftly
- Release the Tourniquet
- Withdraw the Needle
- Ask the Patient to Hold the Gauze or Cotton Wool in Place
- Ask the Patient Not to Bend the Arm
- Use Appropriate Equipment
- Perform Venepuncture

#### 8. Label the Blood Samples

- Prepare and Label the Blood Samples for Test, Procedures and Identification Purposes
- Label Blood Sample so that the Results of the Test Match the Patient
- Use the Key Elements in Labelling
- Make Sure That the Patient's Details Mentioned on the Labels Match with the Details Specified on the Requisition Form
- Make Sure that Date, Time and Initials of the Phlebotomist Must be on the Label of Each Tube
- Make Sure that Automated Systems Include Labels with Bar Codes
- Check the Label and Forms for Accuracy
- Discard the Used Needle and Syringe or Blood Sampling Device into A Puncture-Resistant Sharps Container
- Discard Used Items into The Appropriate Category of Waste
- Perform Hand Hygiene
- Recheck the Labels on the Tubes and the Forms Before Dispatch

#### 9. Porter the Samples

- Transferring the Blood Unit
- Ensuring Proper Storage and Delivery of Samples

#### 10. Update Patient Records

- Clearly Check Label of Blood Samples
- Perform Basic Clerical Tasks
- Keep Track of Patient's Data and Information
- Update Patient Medical Record
- Maintain Safety and Sanitation Records
- Keep Patient's Record Carefully
- Utilise Medical Databases or Other Computer Programs

#### 11. Collate and Communicate Health Information

- Introduction
- Respond to Queries of Patients
- Communicate Effectively with Patients of All Age, Caste, Gender and Other Characteristics
- Communicate with Individuals as Per Their Understanding Levels
- Provide Relevant Information to The Individual
- Confirm Meeting of Individual Needs

- Adhere to Guidelines Provided by One's Organisation Or Regulatory Body Relating to Confidentiality
  - Respect the Individual's Need for Privacy
  - Maintain Records Required at the End of Interaction, If Any
12. Ensure Availability of Medical and Diagnostic Supplies
- Introduction
  - Maintain Adequate Supplies of Medical and Diagnostic Supplies
  - Actual and Accurate Demand
  - Factors Affecting Future Demand of Supplies
  - Handle Situations of Stocks Unavailability
13. Practice Code of Conduct
- Protocols and Guidelines with Respect to the Work Place
  - Work Within the Organisational Systems and Requirements
  - Identifying the Boundary of the Role and Responsibility
  - Maintaining Competence Within the Role and Field of Practice
  - Use Relevant Protocols and Guidelines
  - Promote and Demonstrate Good Practices
  - Identify and Manage Potential and Actual Risks To The Quality And Patient Safety
  - Maintain Personal Hygiene
14. Maintain Work Environment
- Identifying Individual Responsibilities in relation to Maintain Workplace Health Safety and Security Requirements
  - Complying with Health, Safety and Security Procedures for the Workplace
  - Reporting any Identified Breaches in Health, Safety, And Security Procedures to the Designated Person
  - Identifying Potential Hazards and Breaches of Safe Work Practices
  - Competently and Within the Limits of Authority
  - Promptly and Accurately Reporting the Hazards that Individual is Not Allowed to Deal with, to the Relevant Person and Warn Other People Who May Get Affected
  - Following the Organisation's Emergency Procedures Promptly, Calmly, and Efficiently
  - Identifying and Recommending Opportunities for Improving Health, Safety, And Security to the Designated Person
15. Managing Work
- Clearly Establish, Agree, and Record the Work Requirements
  - Utilise Time Effectively
  - Ensure Your Work Meets the Agreed Requirements
  - Treat Confidential Information Correctly
  - Work in Line with the Organisation's Procedures and Policies and Within the Knowledge and Understanding
16. Act Within Limits of Competency and Authority
- Awareness Towards Role and Responsibilities
  - Work Within One's Competence
  - Competence in Role and Field of Practice
  - Maintain Integrity in Practice
  - Follow Good Practices
  - Identify and Manage Risks
  - Improve Competency by Continuous Efforts
17. Work Effectively with others
- Communicate with Other People Clearly and Effectively
  - Integrate One's Work with Other People's Work Effectively
  - Pass Essential Information to Other People on Timely Basis

- Work in a Way that Shows Respect for Other People
- Carry Out Any Commitments Made to Other People
- Reason Out the Failure to Fulfil Commitment
- Identify Any Problems with Team Members and Other People and Take the Initiative to Solve These Problems
- Follow the Organisation's Policies and Procedures

#### 18. Quality Control

- Conduct appropriate research and analysis
- Evaluate potential solution thoroughly
- Participate in education programs
- Read dental hygiene, dental and medical publications
- Promptly and accurately report hazard
- Follow the organisation's emergency procedures promptly, calmly and efficiently
- Identify and recommend opportunities for improving health, safety, and security to the designated person
- Complete any health and safety records legibly and accurately
- Report any identified breaches in health, safety, and security procedures
- Identify and correct hazard

#### Method of Teaching:

- Direct Instruction Method
- Demonstration of skillset
- PowerPoint Presentation
- Video presentation
- Group discussions

#### Method of Assessment & Weightage:

- Internal exams - 30%
  - [10% - Attendance + 20% - Workbook **OR** 30% - Assignments/ Projects]
- Semester end examination - 70%

#### Assessment Tasks:

- Spot identification - 20 marks
- Experiment - 60 marks
  - Long Experiment (40 marks)
  - Short Experiment **OR** Case Studies (20 marks)
- Viva-Voce - 20 marks

#### Reading Lists & References:

##### Essential Reading:

- The Complete Textbook of Phlebotomy Published by Delmar Cengage Learning
- Phlebotomy: Worktext and Procedures Manual. Published by Saunders
- Phlebotomy Handbook: Blood Collection Essentials Published by Prentice Hall
- Textbook of Medical Laboratory Technology – P. B. Godkar
- Anatomy & Physiology for Nurses By Evelyn Pearce

##### Suggested Reading:

- Textbook of Medical Laboratory Technology by Sood
- Computer Fundamentals by Pradeep Sinha and Preeti Sinha
- English for Professional Success – Sanchez et al