# Course Outline

**Health Science and Medical Technology** **REVISED: October/2022**

**Job Title**
Phlebotomy Technician

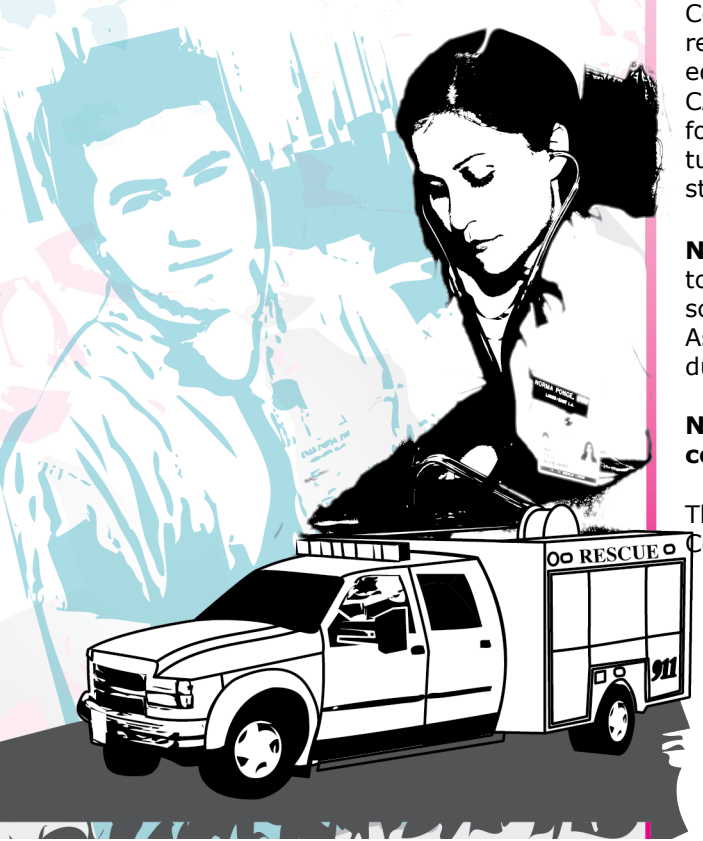
**Career Pathway:**
Patient Care

**Industry Sector:**
Health Science and Medical Technology

**O*NET-SOC CODE:**
31-9097.00

**CBEDS Title:**
Healthcare Occupations

**CBEDS No.:**
4257




## 77-40-55

## Phlebotomy Technician

**Credits:** 5 **Hours:** 120

**Course Description:**
This competency-based course is designed to fulfill the training requirements to become a Certified Phlebotomy Technician (CPT-1) for the state of California. The class consists of theory, skills lab preparation, and clinical experiences. Students will be trained in: introduction, equipment and supplies, workplace safety, infection control, legal issues, communication, anticoagulation theory, anatomy and physiology, patient identification, skin puncture preparation, post-puncture care, sources of error, risk factors and appropriate responses, complications and correction of actions, quality assurance, dermal puncture, venipuncture, employability skills and resume preparation. The competencies in this course are aligned with the California High School Academic Content Standards and the California Career Technical Education Model Curriculum Standards, and is approved by the State of California Department of Public Health, Laboratory Field Services.

**Prerequisites:**
Completion of MOA/1: Medical Terminology (76-15-50) course is highly recommended. Enrollment requires a U.S. High School Diploma or equivalency, 8.0 reading level and 8.0 math level as measured by the CASAS GOALS test, at least 18 years of age, and evidence of vaccination for: measles, mumps, rubella, hepatitis B series, rubeola, varicella, turberculosis clearance, and a physical examination form declaring the student to be in good health without restrictions.

**NOTE1:** Clinical externship facilities or employers may require students to take additional lab work or tests, background check, and/or drug screen. Student must provide proof of a current American Heart Association (AHA) Basic Life Support (BLS) certification card through the duration of the program and **prior to clinical externship**.

**NOTE2:** For Perkins purposes this course has been designated as an **concentrator/capstone** course.

This course **cannot** be repeated once a student receives a Certificate of Completion.

Los Angeles Unified School District
Division of Adult and Career Education
Instructional and Couseling Services Unit
Adult Curriculum Office
www.wearedace.org

## *COURSE OUTLINE COMPETENCY-BASED COMPONENTS*

A course outline reflects the essential intent and content of the course described. Acceptable course outlines have six components. (Education Code Section 52506). Course outlines for all apportionment classes, including those in jails, state hospitals, and convalescent hospitals, contain the six required elements:

(EC 52504; 5CCR 10508 [b]; Adult Education Handbook for California [1977], Section 100)

| **COURSE OUTLINE COMPONENTS** | **LOCATION** |
|---|---|
| **GOALS AND PURPOSES** | Cover |

The educational goals or purposes of every course are clearly stated, and the class periods are devoted to instruction. The course should be broad enough in scope and should have sufficient educational worth to justify the expenditure of public funds.

The goals and purpose of a course are stated in the COURSE DESCRIPTION. Course descriptions state the major emphasis and content of a course and are written to be understandable by a prospective student.

| **PERFORMANCE OBJECTIVES OR COMPETENCIES** | pp. 7-20 |
|---|---|

Objectives should be delineated and described in terms of measurable results for the student and include the possible ways in which the objectives contribute to the student's acquisition of skills and competencies.

Performance Objectives are sequentially listed in the COMPETENCY-BASED COMPONENTS section of the course outline. Competency Areas are units of instruction based on related competencies. Competency Statements are competency area goals that together define the framework and purpose of a course. Competencies fall on a continuum between goals and performance objectives and denote the outcome of instruction.

Competency-based instruction tells a student before instruction what skills or knowledge they will demonstrate after instruction. Competency-based education provides instruction which enables each student to attain individual goals as measured against pre-stated standards.

Competency-based instruction provides immediate and continual repetition. In competency-based education, the curriculum, instruction, and assessment share common characteristics based on clearly stated competencies. Curriculum, instruction, and assessment in competency-based education are explicit, known, agreed upon, integrated, performance oriented, and adaptive.

## *COURSE OUTLINE COMPETENCY-BASED COMPONENTS (continued)*

| COURSE OUTLINE COMPONENTS | LOCATION |
|---|---|
| **INSTRUCTIONAL STRATEGIES** | p. 22 |
| Instructional techniques or methods could include laboratory techniques, lecture method, small-group discussion, grouping plans, and other strategies used in the classroom.<br><br>Instructional strategies for this course are listed in the TEACHING STRATEGIES AND EVALUATION section of the course outline. Instructional strategies and activities for a course should be selected so that the overall teaching approach takes into account the instructional standards of a particular program, i.e., English as a Second Language, Programs for Adults with Disabilities. | |
| **UNITS OF STUDY, WITH APPROXIMATE HOURS ALLOTTED FOR EACH UNIT** | Cover |
| The approximate time devoted to each instructional unit within the course, as well as the total hours for the course, is indicated. The time in class is consistent with the needs of the student, and the length of the class should be that it ensures the student will learn at an optimum level.<br><br>Units of study, with approximate hours allotted for each unit are listed in the COMPETENCY AREA STATEMENT(S) of the course outline. The total hours of the course, including work-based learning hours (community classroom and cooperative vocational education) is listed on the cover of every CBE course outline. Each Competency Area listed within a CBE outline is assigned hours of instruction per unit. | pp. 7-20 |
| **EVALUATION PROCEDURES** | pp. 22-23 |
| The evaluation describes measurable evaluation criteria clearly within the reach of the student. The evaluation indicates anticipated improvement in performances as well as anticipated skills and competencies to be achieved.<br><br>Evaluation procedures are detailed in the TEACHING STRATEGIES AND EVALUATION section of the course outline. Instructors monitor students' progress on a continuing basis, assessing students on attainment of objectives identified in the course outline through a variety of formal and informal tests (applied performance procedures, observations, and simulations), paper and pencil exams, and standardized tests. | |
| **REPETITION POLICY THAT PREVENTS PERPETUATION OF STUDENT ENROLLMENT** | Cover |
| After a student has completed all the objectives of the course, he or she should not be allowed to re-enroll in the course. There is, therefore, a need for a statement about the conditions for possible repetition of a course to prevent perpetuation of students in a particular program for an indefinite period of time. | |

## *ACKNOWLEDGMENTS*

Thanks to MARTHA CAMACHO and ALMA ARELLANO for developing and editing this curriculum. Acknowledgment is also given to ERICA ROSARIO for designing the original artwork for the course covers.

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***CALIFORNIA CAREER TECHNICAL EDUCATION MODEL CURRICULUM STANDARDS***
***Health Science and Medical Technology Industry Sector Knowledge and Performance Anchor Standards***

**1.0 Academics**
Analyze and apply appropriate academic standards required for successful industry sector pathway completion leading to postsecondary education and employment. Refer to the Health Science and Medical Technology academic alignment matrix for identification of standards.

**2.0 Communications**
Acquire and accurately use Health Science and Medical Technology sector terminology and protocols at the career and college readiness level for communicating effectively in oral, written, and multimedia formats.

**3.0 Career Planning and Management**
Integrate multiple sources of career information from diverse formats to make informed career decisions, solve problems, and manage personal career plans. .

**4.0 Technology**
Use existing and emerging technology to investigate, research, and produce products and services, including new information, as required in the Health Science and Medical Technology sector workplace environment.

**5.0 Problem Solving and Critical Thinking**
Conduct short, as well as more sustained, research to create alternative solutions to answer a question or solve a problem unique to the Health Science and Medical Technology sector using critical and creative thinking, logical reasoning, analysis, inquiry, and problem-solving techniques

**6.0 Health and Safety**
Demonstrate health and safety procedures, regulations, and personal health practices and determine the meaning of symbols, key terms, and domain-specific words and phrases as related to the Health Science and Medical Technology sector workplace environment.

**7.0 Responsibility and Flexibility**
Initiate, and participate in, a range of collaborations demonstrating behaviors that reflect personal and professional responsibility, flexibility, and respect in the Health Science and Medical Technology sector workplace environment and community settings.

**8.0 Ethics and Legal Responsibilities**
Practice professional, ethical, and legal behavior, responding thoughtfully to diverse perspectives and resolving contradictions when possible, consistent with applicable laws, regulations, and organizational norms.

**9.0 Leadership and Teamwork**
Work with peers to promote divergent and creative perspectives, effective leadership, group dynamics, team and individual decision making, benefits of workforce diversity, and conflict resolution as practiced in the Cal-HOSA career technical student organization.

**10.0 Technical Knowledge and Skills**
Apply essential technical knowledge and skills common to all pathways in the Health Science and Medical Technology sector, following procedures when carrying out experiments or performing technical tasks.

**11.0 Demonstration and Application**
Demonstrate and apply the knowledge and skills contained in the Health Science and Medical Technology anchor standards, pathway standards, and performance indicators in classroom, laboratory, and workplace settings and through the Cal-HOSA career technical student organization.

**B. Patient Care Pathway**

The standards for the Patient Care pathway apply to occupations or functions involved in the prevention, treatment, and management of illness and the preservation of mental and physical well-being through the services offered by the medical and allied health professions. The standards specify the knowledge and skills needed by professional and technical personnel pursuing careers in this pathway

Sample occupations associated with this pathway:

- Kinesiotherapist
- Nurse Anesthetist
- Respiratory Therapist
- Radiologic Technician
- Dental Hygienist

B1.0 Recognize the integrated systems approach to health care delivery services: prevention, diagnosis, pathology and treatment

B2.0 Understand the basic structure and function of the human body and relate normal function to common disorders.

B3.0 Know how to apply mathematical computations used in health care delivery system.

B4.0 Recognize and practice components of an intake assessment relevant to patient care

B5.0 Know the definition, spelling, pronunciation, and use of appropriate terminology in the health care setting.

B6.0 Communicate procedures and goals to patients using various communication strategies to respond to questions and concerns.

B7.0 Apply observation techniques to detect changes in the health status of patients.

B8.0 Demonstrate the principles of body mechanics as they apply to the positioning, transferring, and transporting of patients.

B9.0 Implement wellness strategies for the prevention of injury and disease behaviors that prevent injury and illness

B10.0 Comply with protocols and preventative health practices necessary to maintain a safe environment.

B11.0 Comply with hazardous waste disposal policies and procedures, including documentation, to ensure that regulated waste is handled, packaged, stored, and disposed of in accordance with federal, state, and local regulations

B12.0 Adhere to the roles and responsibilities, within the scope of practice, that contribute to the design and implementation of treatment planning

B13.0 Research factors that define cultural differences between and among different ethnic, racial, and cultural groups and special populations.

***CBE***
***Competency-Based Education***

## *COMPETENCY-BASED COMPONENTS*
## *for the Phlebotomy Technician Course*

| COMPETENCY AREAS AND STATEMENTS | MINIMAL COMPETENCIES | STANDARDS |
|---|---|---|
| **A. INTRODUCTION**<br><br>Understand class philosophy, policies, scope, and the role of the phlebotomist.<br><br>(Basic Theory: 3 hours) | 1. Identify the scope and purpose of the course.<br>2. Describe policies of the program, classroom, grading, and clinical facility.<br>3. Understand the benefits of teamwork in the school and workplace setting.<br>4. Describe effective study methods and utilization of these methods.<br>5. Define phlebotomy.<br>6. Identify health professionals who perform phlebotomy procedures.<br>7. Understand and describe the phlebotomy technician role and scope of practice.<br>8. List members of a health care team who interact with phlebotomists.<br>9. Identify the importance of phlebotomy procedures to the overall care of the patient.<br>10. List the major departments/sections of the clinical laboratory.<br>11. Describe the roles and qualifications of clinical laboratory personnel.<br>12. Describe the health care delivery system and setting in which phlebotomy services are routinely performed.<br>13. List professional competencies for phlebotomists, the role in delivering, collecting, and/or transporting specimens to and from the laboratory.<br>14. Define the key elements of a performance assessment.<br>15. Describe the clinical laboratory workflow pathway, or testing cycle, from beginning laboratory requests to reporting test results.<br>16. Describe attitudes and qualities needed by phlebotomist to project professionalism such as integrity, confidentiality, and ethical behavior.<br>17. Describe hazards faced by the phlebotomist.<br>18. Identify professional organizations and their roles related to the phlebotomy profession.<br>19. Describe the importance of the phlebotomy industry and employment trends to the economy of California. | **Career Ready Practice:**<br>1, 3, 7, 8, 9<br><br>**CTE Anchor:**<br>Academics:<br>1.0<br>Career Planning and Management:<br>3.4, 3.5, 3.6<br>Responsibility and Flexibility:<br>7.7<br>Ethics and Legal Responsibilities:<br>8.4, 8.5<br>Leadership and Teamwork:<br>9.3<br>Technical Knowledge and Skills:<br>10.1, 10.2<br><br>**CTE Pathway:**<br>B7.4, B8.4, B12.1, B12.2 |

| COMPETENCY AREAS AND STATEMENTS | MINIMAL COMPETENCIES | STANDARDS |
|---|---|---|
| **B. EQUIPMENT & SUPPLIES**<br><br>Recognize and demonstrate the proper use of phlebotomy equipment and supplies.<br><br>(Basic Theory: 3 hours) | 1. Identify the different types of phlebotomy equipment and supplies:<br>a. gloves<br>b. tourniquet<br>c. chlorhexidine<br>d. gauze, bandage, and alcohol pads<br>e. needles and needle holder<br>f. sharps container<br>g. evacuated blood collection tubes & tube inversion<br>h. tube additives<br>i. blood collection color coded tubes<br>j. dermal puncture containers<br>k. capillary tubes<br>l. lancet<br>m. warming device<br>n. centrifuge<br>2. Describe the latest phlebotomy safety supplies and equipment and evaluate their effectiveness in blood collection.<br>3. Identify the various supplies that should be carried on a specimen collection tray when collecting blood by venipuncture and skin puncture.<br>4. Identify the types of safety equipment needed to collect blood by venipuncture and skin puncture.<br>5. Identify and demonstrate different needle disposal devices and appropriate use for each.<br>6. Explain the use of blood transfer devices to evacuated tubes, needle safety devices and disposal of equipment and supplies.<br>7. List substances that can interfere in clinical testing of blood analytes.<br>8. Discuss use of health and safety practices for storing, cleaning, and maintaining tools, equipment, and supplies.<br>9. Pass an equipment and supplies assessment with an 80% score or higher. | **Career Ready Practice:**<br>1, 10<br><br>**CTE Anchor:**<br>Academics:<br>1.0<br>Health and Safety:<br>6.3, 6.7<br>Technical Knowledge and Skills:<br>10.1, 10.2<br>Demonstration and Application:<br>11.1<br><br>**CTE Pathway:**<br>B8.4, B9.1, B10.2, B11.2, B114, B13.1 |
| **C. WORKPLACE SAFETY**<br><br>Recognize and demonstrate methods for appropriate disposal of sharps, needles, waste and maintaining a safe environment. | 1. Understand the importance of adhering to the Safety Data Sheets (SDS) instructions.<br>2. Adhere to regulations regarding workplace safety [e.g. Occupational Safety and Health Administration (OSHA) and the National Institute for Occupational Safety and Health (NIOSH)] as it pertains to phlebotomists.<br>3. Demonstrate and understand and explain the use of appropriate personal protective equipment (PPE).<br>4. Describe practices for appropriate disposal for evacuated tube system, syringe system, and butterfly.<br>5. Describe the consequences of not using the proper safety and disposal of contaminated equipment.<br>6. Describe use of blood transfer devices to evacuated tubes, needle safety devices and disposal of equipment. | **Career Ready Practice:**<br>1, 8, 10<br><br>**CTE Anchor:**<br>Academics:<br>1.0<br>Health and Safety:<br>6.1, 6.2, 6.3, 6.6, 6.7, 6.8<br>Ethics and Legal Responsibilities:<br>8.2, 8.3 |

| COMPETENCY AREAS AND STATEMENTS | MINIMAL COMPETENCIES | STANDARDS |
|---|---|---|
| (Basic Theory: 4 hours) | 7. Explain the measures that should be taken for fire, electrical, radiation, mechanical and chemical safety in a healthcare facility.<br>8. Describe the safe use of equipment in healthcare facilities including use of health and safety practices for storing, cleaning tools, and equipment.<br>9. Identify common equipment-related accidents and methods of prevention.<br>10. State emergency codes used for fire, disaster, patient emergency, and intruder.<br>11. Explain the purpose of patient identification bands.<br>12. List safety measures that prevent accidental needle sticks and risks for infection.<br>13. Describe safety measures that should always be followed by a phlebotomist when collecting patient specimens.<br>14. Explain the purpose of protective devices and safety rules in a healthcare facility.<br>15. Describe maintaining lighting, temperature, and cleanliness to maintain patient safety.<br>16. List three (3) precautions that can reduce the risk of injury to patients.<br>17. State the purpose of the incident report.<br>18. Demonstrate ethical, legal, and safe practices in the clinical facility.<br>19. Demonstrate handling of infectious wastes.<br>20. Demonstrate and practice techniques to safely assist a syncope patient.<br>21. Demonstrate and practice methods to safely assist in the prevention of patient hematoma.<br>22. Demonstrate appropriate handling and disposal of sharps, needles, and waste.<br>23. Demonstrate and practice basic body mechanics.<br>24. Practice recording observations in medical and laboratory records.<br>25. Pass Safety Test with 100% accuracy. | Technical Knowledge and Skills:<br>10.1, 10.2<br>Demonstration and Application:<br>11.1<br><br>**CTE Pathway:**<br>B5.4, B8.2, B8.4, B8.5, B9.1, B9.3, B10.3, B10.4, B11.2 |
| **D. INFECTION CONTROL**<br><br>Recognize and demonstrate methods for maintaining a safe environment, infection control, universal precautions, and prevention of the transmission of disease. | 1. Define and use medical terms related to medical/surgical asepsis.<br>2. Identify common microbes and the disease conditions caused.<br>3. Describe three conditions necessary for the growth of microorganisms.<br>4. Define and describe the chain of infection and measures that can break each link.<br>5. Explain and demonstrate the proper hand washing procedure.<br>6. Identify cleansing agents used in hand washing.<br>7. Demonstrate knowledge and practice of Standard Precautions.<br>8. Explain and demonstrate the proper technique of using personal protective equipment observing Standard Precautions.<br>9. Identify infection control and isolation procedures.<br>10. Describe the disposal of medical waste and soiled linen.<br>11. Explain general procedures for handling a biohazard spill. | **Career Ready Practice:**<br>1, 2, 5, 8, 10<br><br>**CTE Anchor:**<br>Academics:<br>1.0<br>Communication:<br>2.8<br>Problem Solving and Critical Thinking:<br>5.4<br>Health and Safety:<br>6.2, 6.7 |

| COMPETENCY AREAS AND STATEMENTS | MINIMAL COMPETENCIES | STANDARDS |
|---|---|---|
| (Basic Theory: 5 hours)<br>(Advanced Theory: 3 hours) | 12. Understand and compare sterilization and disinfection methods (e.g., gas and steam).<br>13. Describe the handling of sterile and non-sterile equipment, supplies, dressing, and materials.<br>14. List a minimum of three the types of tape and precautions for each.<br>15. Explain the infection control policies and procedures that must be followed in specimen collection and transportation.<br>16. Define the term *healthcare-associated, healthcare-acquired,* and *nosocomial infections.*<br>17. Describe the major organisms responsible for healthcare-associated infections.<br>18. Identify steps to avoid transmission of blood-borne pathogens.<br>19. Identify ways to reduce risks for infections and accidental needle sticks.<br>20. Identify the steps to take in the case of blood-borne pathogen exposure.<br>21. Define "biohazardous specimen."<br>22. List at least three (3) types of biohazardous materials a phlebotomist may routinely encounter.<br>23. Demonstrate and practice proper donning and doffing of personal protective equipment.<br>24. Demonstrate proficiency in phlebotomy techniques related to pre-analytical processes of laboratory specimens, recognizing, and adhering to infection control and safety policies and procedures.<br>Pass an infection control assessment with an 80% score or higher. | Ethics and Legal Responsibilities: 8.2, 8.3<br>Technical Knowledge and Skills: 10.1, 10.2<br>Demonstration and Application: 11.1<br><br>**CTE Pathway:**<br>B1.2, B8.4, B9.1, B10.1, B10.2, B10.4, B10.5, B10.6, B11.1, B11.4, B12.3, B12.4 |
| **E. LEGAL ISSUES**<br><br>Understand and apply knowledge of legal issues related to blood collection and patients' rights. | 1. Define the difference between quality improvement and quality control procedures.<br>2. Explain the legal and ethical ramifications of inadequate quality assurance/quality control (QA/QC).<br>3. Describe the effect of CLIA (Clinical Laboratory Improvement Amendment) 1988 on specimen collection and testing.<br>4. List three concepts of quality in healthcare.<br>5. List the accrediting agencies that routinely inspect for QA/QC documentation.<br>6. Define types of damages: special damage, general damage, punitive damage.<br>7. Describe and discuss the major points of the Patients' Bill of Rights as it applies to confidentiality and clinical laboratory personnel.<br>8. Define and discuss *standard of care* from a legal and a health care provider's perspective.<br>9. Differentiate ethics and bioethics.<br>10. Identify and define Civil law and Tort law.<br>11. Identify and discuss negligence vs. malpractice.<br>12. Discuss scope of practice, Good Samaritan law, and uniform anatomical gift act. | **Career Ready Practice:**<br>1, 5, 8<br><br>**CTE Anchor:**<br>Academics: 1.0<br>Problem Solving and Critical Thinking: 5.6<br>Healthy and Safety: 6.2<br>Ethics and Legal Responsibilities: 8.1, 8.2, 8.4, 8.7<br>Technical Knowledge and Skills: 10.1, 10.2 |

| COMPETENCY AREAS AND STATEMENTS | MINIMAL COMPETENCIES | STANDARDS |
|---|---|---|
| (Advanced Theory: 3 hours) | 13. Discuss the American with Disabilities Act (ADA).<br>14. List the basic legal terminology involved in healthcare and used in the medical legal aspect for phlebotomy.<br>15. Describe types of consent used in health care settings, including *informed consent* and *implied consent.*<br>16. Describe how to avoid litigation as it relates to blood collection.<br>17. Identify and explain the laws that regulate compliance.<br>18. Identify and explain Health Information Portability and Accountability Act (HIPAA) compliance and confidentiality when verifying patient identification prior to blood collection procedures.<br>19. Describe basic components of the medical record and provide examples of how to maintain confidentiality and privacy related to patient information.<br>20. List key factors common to health professional liability insurance policies.<br>21. List common issues in lawsuits against healthcare providers and prevention tips to avoid lawsuits in phlebotomy.<br>22. Explain *liability* and what it means for health care providers.<br>23. Pass a legal assessment with an 80% score or higher. | **CTE Pathway:**<br>B5.1, B5.2, B5.4, B6.6, B7.4 |
| **F. COMMUNICATION**<br><br>Understand the principles of effective communication and defense mechanisms, sociocultural factors, and attitudes that prevent dialogue. | 1. Differentiate between verbal and non-verbal communication.<br>2. Illustrate nonverbal communication such as gestures, facial expressions, posture, body language, and touch.<br>3. Outline the basic communication loop.<br>4. Describe the components of interpersonal relationships.<br>5. Identify methods to overcome barriers to appropriate and accurate communication.<br>6. Define and describe excessive use of defense mechanisms indicative of impaired mental health such as denial, displacement, projection, rationalization, and repression.<br>7. Illustrate how stress may contribute to ineffective communication.<br>8. Assess comprehension, hearing, and vision difficulties that impede communication.<br>9. Describe language as a factor influencing communication.<br>10. Explain how religion and culture may be barriers to communication.<br>11. Demonstrate effective communication techniques.<br>12. Describe essential elements of laboratory test requisitions, specimen labels, equipment, and test results.<br>13. Identify potential clerical or technical errors that may occur during labeling or documentation of phlebotomy procedures.<br>14. Identify essential functions of computers in health care and discuss ways that healthcare workers use them.<br>15. Respect cultural differences and demonstrate culturally competent communication techniques during blood draws and other laboratory procedures. | **Career Ready Practice:**<br>1, 2, 5, 6, 9, 10<br><br>**CTE Anchor:**<br>Academics:<br>1.0<br>Communication:<br>2.2, 2.3, 2.5<br>Problem Solving and Critical Thinking:<br>5.1, 5.4<br>Leadership and Teamwork:<br>9.6<br>Demonstration and Application:<br>11.1<br><br>**CTE Pathway:**<br>B4.3, B4.4, B4.5, B5.1, B5.2, B6.2, B6.4 |

| COMPETENCY AREAS AND STATEMENTS | MINIMAL COMPETENCIES | STANDARDS |
|---|---|---|
| (Advanced Theory: 3 hours) | 16. Demonstrate active listening skills and communication techniques to gather information from patient.<br>17. Pass a communication assessment with an 80% score or higher. | |
| **G. ANTICOAGULATION THEORY**<br><br>Understand and apply the principles of hemostasis and coagulation cascade.<br><br>(Advanced Theory: 3 hours) | 1. Understand the anticoagulation theory.<br>2. Define medical terminology related to hemostasis and its stages:<br>a. Stage 1: vasoconstriction<br>b. Stage 2: platelet plug formation<br>c. Stage 3: coagulation and anti-coagulation of blood.<br>3. Identify three (3) components of coagulation.<br>4. Explain the basic process of coagulation and fibrinolysis.<br>5. Describe the steps in the clotting response.<br>6. Understand and describe coagulation issues that affect phlebotomy.<br>7. Define and describe platelet function and coagulation factors.<br>8. Identify and describe the cellular and non-cellular components of blood and their proportions.<br>9. State normal values for hematocrit, hemoglobin, and white blood count.<br>10. Define and explain the different roles of blood components: red blood cells (RBC), white blood cells (WBC), and platelets.<br>11. Describe the different types and functions of WBCs and the process of phagocytosis.<br>12. Pass an anticoagulation assessment with an 80% score or higher. | **Career Ready Practice:**<br>1, 2<br><br>**CTE Anchor:**<br>Academics:<br>1.0<br>Communication:<br>2.8<br>Technical Knowledge and Skills:<br>10.1<br><br>**CTE Pathway:**<br>B2.1, B2.3, B2.4, B5.4, B7.2 |
| **H. ANATOMY AND PHYSIOLOGY**<br><br>Understand and evaluate the interrelationship between the circulation of blood and the lymphatic system throughout the body. | 1. Define and explain medical terminology related to basic anatomy and physiology of body systems with emphasis on the circulatory system.<br>2. Define the differences among the terms: *anatomy, physiology,* and *pathology.*<br>3. Describe the directional terms, anatomical surface regions, and cavities of the body.<br>4. Define and describe the role of homeostasis in normal body functioning.<br>5. Describe the purpose, function, and structural components of the major body systems.<br>6. Define the functions of the cardiovascular and lymphatic systems.<br>7. Identify and describe the structures and functions of the heart and vascular system.<br>8. Demonstrate the flow of blood by tracing through the cardiovascular system.<br>9. Identify and describe the cellular and noncellular components of blood and their proportions.<br>10. Define the differences among *blood plasma* and *blood serum.*<br>11. Define and describe antibody and antigen functions.<br>12. List the antigens and antibodies present in the A, B, AB, O, and Rh+ blood type. | **Career Ready Practice:**<br>1, 2, 10<br><br>**CTE Anchor:**<br>Academics:<br>1.0<br>Communication:<br>2.8<br>Technical Knowledge and Skills:<br>10.1<br>Demonstration and Application:<br>11.1<br><br>**CTE Pathway:**<br>B2.1, B2.3, B2.4, B5.1, B5.2, B5.3, B5.4, B12.1 |

| COMPETENCY AREAS AND STATEMENTS | MINIMAL COMPETENCIES | STANDARDS |
|---|---|---|
| (Basic: 3 hours)<br>(Advanced: 3 hours) | 13. Define blood transfusion and blood groups.<br>14. Define the function and structure of blood vessels: arterial system, venous system, and capillary system.<br>15. Describe the diagnostic function of arterial blood gases.<br>16. Describe different types of blood vessels and the properties of arterial blood, venous blood, and capillary blood.<br>17. Locate, name, and describe the veins most commonly used for phlebotomy procedures.<br>18. Describe how laboratory testing is used to assess body functions and disease.<br>19. Describe the types of specimens that are analyzed in the clinical laboratory.<br>20. List common diagnostic tests associated with each organ system.<br>21. Understand and list pathologic conditions and common laboratory tests associated with the cardiovascular and lymphatic systems.<br>22. Pass an anatomy and physiology assessment with an 80% score or higher. | |
| **I. PATIENT IDENTIFICATION**<br><br>Understand and demonstrate the skills necessary for identification of patients and specimens.<br><br>(Basic Theory: 3 hours) | 1. Describe the steps a healthcare worker should take in preparing themselves for a procedure.<br>2. Understand the importance of active listening skills and describe the detailed steps in the proper identification process of patient specimens and what to do if information is missing.<br>3. Explain complete patient and specimen identification procedures and the importance of accuracy in overall patient care.<br>4. Demonstrate proper patient identification.<br>5. Demonstrate and explain procedures for recording patient history pertinent to laboratory request.<br>6. Maintain HIPAA guidelines and demonstrate ethical and legal practices pertaining to patient identification and confidentiality during patient encounters.<br>7. Pass a patient identification assessment with an 80% score or higher. | **Career Ready Practice:**<br>1, 2, 5, 8, 10<br><br>**CTE Anchor:**<br>Academics:<br>1.0<br>Communications:<br>2.5<br>Problem Solving and Critical Thinking:<br>5.4<br>Health and Safety:<br>6.2<br>Ethics and Legal Responsibilities:<br>8.3<br>Technical Knowledge and Skills:<br>10.1<br>Demonstration and Application:<br>11.1<br><br>**CTE Pathway:**<br>B4.5, B6.2, B6.6, B12.3, B12.4 |

| COMPETENCY AREAS AND STATEMENTS | MINIMAL COMPETENCIES | STANDARDS |
|---|---|---|
| **J. SKIN PUNCTURE PREPARATION**<br><br>Understand, plan, and demonstrate the skills necessary for basic phlebotomy.<br><br>(Basic Theory: 3 hours)<br>(Advanced Theory: 2 hours) | 1. Discuss and demonstrate proper selection and preparation of skin puncture site, including selection of antiseptic.<br>2. List the various types of anticoagulants and additives used in blood collection, their mechanisms of action on collected blood, examples of tests performed on these tubes, and the vacuum-collection-tube color codes for these anticoagulants and additives.<br>3. Identify tubes selection and explain the order of draw when additives are required.<br>4. Describe the diagnostic function of arterial blood gases.<br>5. Identify and demonstrate the preferred site for arterial puncture and state four (4) factors that should be considered when selecting a site.<br>6. State the purpose of the Modified Allen Test.<br>7. Describe six (6) complications of arterial puncture and precautions to avoid them.<br>8. Discuss age specific differences between pediatric and adult arterial punctures.<br>9. Pass a skin puncture preparation assessment with an 80% score or higher. | **Career Ready Practice:**<br>1, 5, 8, 10<br><br>**CTE Anchor:**<br>Academics:<br>1.0<br>Problem Solving and Critical Thinking:<br>5.4<br>Ethics and Legal Responsibilities:<br>8.3<br>Technical Knowledge and Skills:<br>10.1, 10.2, 10.3<br>Demonstration and Application:<br>11.1<br><br>**CTE Pathway:**<br>B2.1, B2.2, B5.1, B12.3 |
| **K. POST-PUNCTURE CARE**<br><br>Understand, plan, and demonstrate the skills necessary for basic phlebotomy dermal punctures. | 1. List steps to ensure bleeding has stopped.<br>2. Describe care of the puncture site.<br>3. Demonstrate patient assessment at the end of the procedure.<br>4. Demonstrate proper site care post-venipuncture.<br>5. Describe age specific care.<br>6. Activate the needle safety device and discarding contaminated waste.<br>7. Pass a post-puncture care assessment with an 80% score or higher. | **Career Ready Practice:**<br>1, 2, 5, 10<br><br>**CTE Anchor:**<br>Academics:<br>1.0<br>Communications:<br>2.5<br>Problem Solving and Critical Thinking:<br>5.4, 5.6<br>Health and Safety:<br>6.2, 6.3, 6.6, 6.8<br>Technical Knowledge and Skills:<br>10.1, 10.2<br>Demonstration and Application:<br>11.1 |

| COMPETENCY AREAS AND STATEMENTS | MINIMAL COMPETENCIES | STANDARDS |
|---|---|---|
| (Basic Theory: 3 hours) | | **CTE Pathway:** B4.1, B6.2, B7.1, B8.4, B9.1, B10.2, B11.4, B12.3 |
| **L. SOURCES OF ERROR**<br><br>Understand, apply, and evaluate errors in specimen collection, transport, processing, and storage.<br><br>(Advanced Theory: 3 hours) | 1. Describe preanalytical (pre-examination) complications related to phlebotomy procedures and impacting patient safety.<br>2. List at least three sources of pre-examination error that can occur during blood specimen handling.<br>3. Explain how to prevent and/or handle complications in blood collection.<br>4. List at least five factors about a patient's physical disposition (i.e., makeup) that can affect blood collection.<br>5. List examples of substances that can interfere in clinical analysis of blood constituents and describe methods used to prevent these interferences.<br>6. Describe how allergies, a mastectomy, edema, and thrombosis can affect blood collection.<br>7. List preanalytical complications that can arise with test requests and identification.<br>8. Describe complications associated with tourniquet pressure and fist pumping.<br>9. Identify how the preanalytical factors of syncope, petechiae, neurological complications, hemoconcentration, hemolysis, and intravenous therapy affect blood collection.<br>10. Describe at least three sources of pre-examination error that can occur during blood specimen transportation.<br>11. Describe at least three sources of pre-examination error that can occur during specimen processing or storage.<br>12. Describe the impact of possible erroneous results.<br>13. Explain ways in which the phlebotomist can avoid preanalytical errors that can occur after specimen collection.<br>14. List the circumstances that would lead to recollection or rejection of a patient sample.<br>15. Pass a sources of error assessment with an 80% score or higher. | **Career Ready Practice:** 1, 2, 5, 10<br><br>**CTE Anchor:** Academics: 1.0 Communications: 2.5 Problem Solving and Critical Thinking: 5.1, 5.2, 5.4, 5.6 Health and Safety: 6.2 Technical Knowledge and Skills: 10.1 Demonstration and Application: 11.1<br><br>**CTE Pathway:** B2.1, B2.3, B4.5, B12.1, B12.3 |
| **M. RISK FACTORS AND APPROPRIATE RESPONSES**<br><br>Understand, apply, and evaluate risk factors and appropriate responses to complications. | 1. List factors that can cause failure to draw blood.<br>2. Identify ways to prevent backflow of anticoagulant.<br>3. Identify ways to minimize the causes of hematoma.<br>4. Recognize common causes of hemolysis.<br>5. Demonstrate selection of the appropriate tube size for patient vein.<br>6. State the complications produced by the presence of alcohol at the puncture site.<br>7. Describe "chain of custody" as it relates to specimen collection.<br>8. Pass a risk factors and appropriate response assessment with an 80% score or higher. | **Career Ready Practice**: 1, 2, 5, 10<br><br>**CTE Anchor:** Academics: 1.0 Communications: 2.5, 2.7 Problem Solving and Critical Thinking: 5.3, 5.4 |

| COMPETENCY AREAS AND STATEMENTS | MINIMAL COMPETENCIES | STANDARDS |
|---|---|---|
| (Advanced Theory: 3 hours) | | Technical Knowledge and Skills: 10.1 Demonstration and Application: 11.1<br><br>**CTE Pathway:** B2.1, B2.3, B2.4, B5.1, B8.2, B9.1, B12.3 |
| **N. COMPLICATIONS AND CORRECTION OF ACTIONS**<br><br>Understand, apply, and evaluate correction of actions in phlebotomy requisitions, specimen transport and processing.<br><br>(Advanced Theory: 3 hours) | 1. Name three methods commonly used to transport specimens.<br>2. Explain Requisition Law.<br>3. Discuss policy for labeling specimens, manual versus computer generated, and situations where computer labels are not available at the time of draw.<br>4. Explain the proper placement of computer labels on tubes.<br>5. List eight types of errors that can affect patient samples before collection begins.<br>6. Describe the impact of these errors on specific analyses.<br>7. Explain ways in which the phlebotomist can avoid making these errors.<br>8. List the circumstances that would lead to recollection or rejection of a sample<br>9. List four factors that interfere with specimen integrity after collection.<br>10. Understand pre and post centrifugation process.<br>11. Describe at least three sources of pre-examination error that can occur during blood specimen handling, transportation, and storage.<br>12. Describe at least three basic shipping requirements for the safe transportation of infectious substances.<br>13. Pass a complications and correction of actions assessment with an 80% score or higher. | **Career Ready Practice**: 1, 2, 5, 8<br><br>**CTE Anchor:** Academics: 1.0 Communications: 2.5 Problem Solving and Critical Thinking: 5.3, 5.4 Health and Safety: 6.6 Ethics and Legal Responsibilities: 8.3 Technical Knowledge and Skills: 10.1, 10.2<br><br>**CTE Pathway:** B4.5, B11.2, B11.4 B12.1, B12.4 |
| **O. QUALITY ASSURANCE**<br><br>Understand, apply, and evaluate quality assurance in phlebotomy. | 1. List three concepts of quality in health care.<br>2. Define the difference between quality improvement and quality control.<br>3. Define the following:<br>a. Quality Assurance (QA)<br>b. Turnaround Times (TAT)<br>c. Continuous Quality Improvement (CQI)<br>d. Total Quality Management (TQM)<br>e. Delta Check | **Career Ready Practice:** 1, 2, 5, 8<br><br>**CTE Anchor:** Academics: 1.0 Communications: 2.8 |

| COMPETENCY AREAS AND STATEMENTS | MINIMAL COMPETENCIES | STANDARDS |
|---|---|---|
| (Advanced Theory: 3 hours) | 4. List the basic tools and give examples of how a phlebotomist can participate in quality improvement activities.<br>5. Describe a system for monitoring quality assurance in the collection of blood specimens.<br>6. Identify policies and procedures used in the lab to assure quality in the obtaining of blood specimens.<br>7. Relate legal responsibilities of the lab and phlebotomist to the need for physicians' requests for all specimen collection and testing.<br>8. Pass a quality assurance assessment with an 80% score or higher. | Problem Solving and Critical Thinking: 5.3, 5.4<br>Health and Safety: 6.2<br>Ethics and Legal Responsibilities: 8.1, 8.2, 8.3, 8.7<br>Technical Knowledge and Skills: 10.1, 10.2<br><br>**CTE Pathway:** B4.4, B4.5, B5.1, B5.4, B12.1, B12.3, B12.4 |
| **P. DERMAL PUNCTURE**<br><br>Understand, plan, and demonstrate the skills necessary for basic phlebotomy dermal puncture and complete 10 skin punctures.<br><br>(Clinical: 25 hours) | 1. Describe the reasons for acquiring capillary blood specimens for adults, children, and infants.<br>2. List common laboratory tests for which capillary specimens may be collected.<br>3. Explain why capillary blood from a skin/dermal puncture is different from blood taken by venipuncture and the impact on laboratory tests.<br>4. Demonstrate HIPAA compliance and patient confidentiality when verifying patient identification before the blood collection procedure.<br>5. Demonstrate proper cleaning of the puncture site.<br>6. Identify the proper sites for performing a skin puncture procedure and explain why it is necessary to control the depth of the incision.<br>7. Describe the procedure for performing a skin puncture.<br>8. Demonstrate proper dermal puncture technique.<br>9. Demonstrate patient safety throughout procedure.<br>10. Demonstrate finger stick method for obtaining blood for blood sugar, hematocrit capillary tube and hemoglobin.<br>11. Demonstrate post-puncture care.<br>12. Demonstrate universal precautions in obtaining blood specimens.<br>13. Describe the purpose and procedure for making blood smears and the characteristics of an acceptable blood smear.<br>14. Pass a dermal puncture assessment with an 80% score or higher. | **Career Ready Practice:** 1, 2, 5, 8, 10<br><br>**CTE Anchor:** Academics: 1.0<br>Communications: 2.5<br>Problem Solving and Critical Thinking: 5.4<br>Health and Safety: 6.2, 6.3, 6.6, 6.7<br>Ethics and Legal Responsibilities: 8.2, 8.3, 8.4, 8.7<br>Technical Knowledge and Skills: 10.1<br>Demonstration and Application: 11.1<br><br>**CTE Pathway:** B2.1, B5.1, B6.6, B7.1, B10.2, B12.1, B12.3, B12.4 |

| COMPETENCY AREAS AND STATEMENTS | MINIMAL COMPETENCIES | STANDARDS |
|---|---|---|
| **Q. VENIPUNCTURE**<br><br>Understand, plan, and demonstrate the skills necessary for basic phlebotomy venipuncture punctures and complete 50 venipunctures and observe two arterial punctures.<br><br>(Clinical: 25 hours) | 1. Describe the steps a healthcare worker should take in preparing for a venipuncture procedure (e.g., identify patient, wash hands, put on gloves, etc.).<br>2. List the supplies and equipment used in a typical venipuncture procedure.<br>3. Describe detailed steps in the patient identification process and what to do if information is missing.<br>4. Demonstrate patient preparation and positioning.<br>5. Describe the methods and rationale for hand hygiene.<br>6. Differentiate between antiseptic and disinfectant, list agents used for blood collection.<br>7. Identify the most common site for obtaining blood and situations when these sites might not be acceptable.<br>8. Identify alternative sites for venipuncture procedures.<br>9. Describe the decontamination process and the agents used to decontaminate skin for routine blood tests and blood cultures.<br>10. Demonstrate proper selection and use of phlebotomy equipment.<br>11. Demonstrate proper cleaning of the venipuncture site.<br>12. Demonstrate proper tourniquet application.<br>13. Describe the process and time limits for applying a tourniquet to a patient's arm.<br>14. Demonstrate proper needle insertion and removal from vein technique.<br>15. Describe the steps of a venipuncture procedure using the evacuated tube method, syringe method, and butterfly method according to the CLSI Approved Standard.<br>16. Demonstrate patient safety throughout procedure.<br>17. Demonstrate venipuncture procedure using the vacuum tube method.<br>18. Demonstrate post-puncture care.<br>19. Describe the "order of draw" for collection tubes.<br>20. Describe how to react when the patient has fainted or experiences nausea and vomiting, or convulsions.<br>21. Define and explain the clinical reason for the terms *fasting, STAT,* and *timed specimens.*<br>22. Demonstrate proficiency with a syringe system or winged infusion set.<br>23. Identify different color tube stoppers; identify additive in each, describe use in lab testing.<br>24. Demonstrate proper disposal of used needles, sharps, and waste.<br>25. Demonstrate proper specimen collection, labelling and shipment to the laboratory.<br>26. Observe at least two arterial punctures.<br>27. Pass a venipuncture assessment with an 80% score or higher. | **Career Ready Practice:**<br>1, 2, 5, 10<br><br>**CTE Anchor:**<br>Academics:<br>1.0<br>Communications:<br>2.5<br>Problem Solving and Critical Thinking:<br>5.1, 5.3<br>Health and Safety:<br>6.3, 6.6, 6.7<br>Technical Knowledge and Skills:<br>10.1<br>Demonstration and Application:<br>11.1<br><br>**CTE Pathway:**<br>B2.1, B4.1, B4.5, B7.1, B8.1, B9.2, B10.2, B10.5, B10.7, B12.1, 12.4, B13.1 |

| COMPETENCY AREAS AND STATEMENTS | MINIMAL COMPETENCIES | STANDARDS |
|---|---|---|
| **R. CERTIFICATION EXAMINATION PREPARATION**<br><br>Understand and use test-taking strategies needed to pass the Certified Phlebotomy Technician (CPT) certification exam.<br><br>(Theory: 10 hours) | 1. Review and understand safety and compliance of policies, procedures, and regulations in the workplace.<br>2. Review and understand patient preparation, identification, and communication.<br>3. Review and understand routine blood collection procedures.<br>4. Review and understand special collections.<br>5. Review and understand processing procedures.<br>6. Explain and apply strategies for minimizing test anxiety including affirmations, visualization, and mental association.<br>7. Identify, clarify, and solve test-related problems using various types of reasoning.<br>8. Interpret information and draw conclusions to improve strategies for answering different types of questions.<br>9. Employ critical thinking, reading, and writing skills.<br>10. Practice timed reading to improve speed and efficiency.<br>11. Discuss the California state phlebotomy license requirements and application process. | **Career Ready Practice:**<br>1, 2, 3, 5, 7, 8, 10, 12<br><br>**CTE Anchor:**<br>Academics:<br>1.0<br>Communications:<br>2.1, 2.2, 2.3<br>Career Planning and Management:<br>3.4<br>Problem Solving and Critical Thinking:<br>5.1, 5.2, 5.3, 5.4<br>Responsibility and Flexibility:<br>7.2<br>Ethics and Legal Responsibilities:<br>8.7<br>Demonstration and Application:<br>11.1<br><br>**CTE Pathway:**<br>B5.1, B6.1, B6.2, B6.3, B6.6, B9.2, B11.1, B11.2, B11.3, B11.4, B12.3, B12.4 |
| **S. EMPLOYABILITY SKILLS AND RESUME PREPARATION**<br><br>Demonstrate the ability to prepare for and retain employment as a phlebotomy technician. | 1. Understand employer requirements for soft skills such as:<br>a. punctuality and attendance<br>b. time management<br>c. flexibility and adaptability<br>d. interpersonal skills<br>e. work ethic<br>f. communication and collaboration<br>g. teamwork<br>h. critical thinking and problem solving<br>i. leadership and responsibility<br>j. ethical behavior<br>k. customer service<br>2. Exhibit professional attitudes and behaviors that are necessary for Phlebotomy Technicians.<br>3. Create/revise a resume, cover letter and/or portfolio.<br>4. Review the role of online job searching platforms and career websites. | **Career Ready Practice:**<br>1, 2, 3, 4, 5, 7, 8, 9, 10<br><br>**CTE Anchor:**<br>Academics:<br>1.0<br>Communications:<br>2.2, 2.3, 2.4, 2.5<br>Career Planning and Management:<br>3.2, 3.3, 3.4, 3.6, 3.8<br>Technology:<br>4.1, 4.3 |

| COMPETENCY AREAS AND STATEMENTS | MINIMAL COMPETENCIES | STANDARDS |
|---|---|---|
| (Theory: 4 hours) | 5. Complete and/or review an online job application.<br>6. Understand interview skills to get the job:<br>b. do's and don'ts for job interviews<br>c. appearance and how to dress for the job<br>7. Create sample follow-up letters.<br>8. Understand the importance of the continuous upgrading of job skills as it relates to:<br>a. certification, licensure, and/or renewal<br>b. professional organization/events<br>c. industry associations and/or organized labor | Problem Solving & Critical Thinking: 5.1<br>Responsibility and Flexibility: 7.2, 7.3, 7.4, 7.7<br>Ethics and Legal Responsibilities: 8.4<br>Leadership and Teamwork: 9.2, 9.3, 9.4, 9.6<br>Demonstration and Application: 11.1, 11.5<br><br>**CTE Pathway:** B6.2, B6.6, B12.2, B12.3 |

# SUGGESTED INSTRUCTIONAL MATERIALS and OTHER RESOURCES

## TEXTS AND SUPPLEMENTAL BOOKS

Garza, D., McBride-Becan, K. Phlebotomy Handbook 10th Edition. Pearson, 2019

## OTHER TEXTBOOK RESOURCE

Garza, D., McBride-Becan, K., Phlebotomy Handbook, Blood Specimen Collection from Basic to Advanced, 8th Edition. Pearson, 2009.

Strasinger, S., Di Lorenzo, M., Phlebotomy Notes: Pocket Guide to Blood collection, 2nd Edition, F.A. Davis Company, 2019

## RESOURCES

Employer Advisory Board Members

California Career Technical Education Model Curriculum Standards
https://www.cde.ca.gov/ci/ct/sf/documents/healthmedical.pdf

Centers for Disease Control and Prevention (CDC)
https://www.cdc.gov/handhygiene/providers/index.html
https://www.cdc.gov/handwashing/show-me-the-science-hand-sanitizer.html
https://www.cdc.gov/niosh/topics/bbp/
https://www.cdc.gov/nora/councils/hesa/stopsticks/sharpsinjuries.html
https://www.cdc.gov/nora/councils/hesa/stopsticks/resources.html
https://www.cdc.gov/niosh/newsroom/feature/needlestick_disposal.html

National Institute for Occupational Safety and Health (NIOSH)
http://www.cdc.gov/niosh/docs/2000-108/default.html

National Healthcareer Association (NHA)
http://www.nhanow.com/certification/nha-certifications/certified-phlebotomy-technician-(cpt)

Occupational Safety and Health Administration (OSHA)
http://www.osha.gov/sites/default/files/publications/bbfact01.pdf

## COMPETENCY CHECKLIST

## *TEACHING STRATEGIES and EVALUATION*

**METHODS AND PROCEDURES**

A. Lecture and discussion

B. Visual aids

C. Projects

D. Demonstration/participation

E. Guest lecturers

**EVALUATION**

SECTION A – Introduction – Pass all assignments and exams with a minimum score of 80% or higher.

SECTION B – Equipment and Supplies - Pass all assignments and exams with a minimum score of 80% or higher.

SECTION C – Workplace Safety – Pass the safety test with 100% accuracy.

SECTION D – Infection Control– Pass all assignments and exams with a minimum score of 80% or higher.

SECTION E – Legal Issues - Pass all assignments and exams with a minimum score of 80% or higher.

SECTION F – Communication – Pass all assignments and exams with a minimum score of 80% or higher.

SECTION G – Anticoagulation Theory – Pass all assignments and exams with a minimum score of 80% or higher.

SECTION H – Anatomy and Physiology – Pass all assignments and exams with a minimum score of 80% or higher.

SECTION I – Patient Identification – Pass all assignments and exams with a minimum score of 80% or higher.

SECTION J – Skin Puncture Preparation – Pass all assignments and exams with a minimum score of 80% or higher.

SECTION K – Post-Puncture Care – Pass all assignments and exams with a minimum score of 80% or higher.

SECTION L – Sources of Error – Pass all assignments and exams with a minimum score of 80% or higher.

SECTION M – Risk Factors and Appropriate Responses – Pass all assignments and exams with a minimum score of 80% or higher.

SECTION N – Complications and Correction of Actions – Pass all assignments and exams with a minimum score of 80% or higher.

SECTION O – Quality Assurance – Pass all assignments and exams with a minimum score of 80% or higher.

SECTION P – Dermal Puncture – Pass all assignments and exams with a minimum score of 80% or higher.

SECTION Q – Venipuncture – Pass all assignments and exams with a minimum score of 80% or higher.

SECTION R – Certification Examination Preparation – Pass all assignments and exams with a minimum score of 80% or higher.

SECTION S – Employability Skills and Resume Preparation – Pass all assignments and exams with a minimum score of 80% or higher.

## *Standards for Career Ready Practice*

1. **Apply appropriate technical skills and academic knowledge.**
   Career-ready individuals readily access and use the knowledge and skills acquired through experience and education. They make connections between abstract concepts with real-world applications and recognize the value of academic preparation for solving problems, communicating with others, calculating measures, and performing other work-related practices.

2. **Communicate clearly, effectively, and with reason.**
   Career-ready individuals communicate thoughts, ideas, and action plans with clarity, using written, verbal, electronic, and/or visual methods. They are skilled at interacting with others: they are active listeners who speak clearly and with purpose, and they are comfortable with terminology that is common to workplace environments. Career-ready individuals consider the audience for their communication and prepare accordingly to ensure the desired outcome.

3. **Develop an education and career plan aligned with personal goals.**
   Career-ready individuals take personal ownership of their educational and career goals and manage their individual plan to attain these goals. They recognize the value of each step in the educational and experiential process, and they understand that nearly all career paths require ongoing education and experience to adapt to practices, procedures, and expectations of an ever-changing work environment. They seek counselors, mentors, and other experts to assist in the planning and execution of education and career plans.

4. **Apply technology to enhance productivity.**
   Career-ready individuals find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring and using new technology. They understand the inherent risks—personal and organizational—of technology applications, and they take actions to prevent or mitigate these risks.

5. **Utilize critical thinking to make sense of problems and persevere in solving them**
   Career-ready individuals recognize problems in the workplace, understand the nature of the problems, and devise effective plans to solve the problems. They thoughtfully investigate the root cause of a problem prior to introducing solutions. They carefully consider options to solve a problem and, once agreed upon, follow through to ensure the problem is resolved.

6. **Practice personal health and understand financial literacy.**
   Career-ready individuals understand the relationship between personal health and workplace performance. They contribute to their personal well-being through a healthy diet, regular exercise, and mental health activities. Career-ready individuals also understand that financial literacy leads to a secure future that enables career success.

7. **Act as a responsible citizen in the workplace and the community.**
   Career-ready individuals understand the obligations and responsibilities of being a member of a community and demonstrate this understanding every day through their interactions with others. They are aware of the impacts of their decisions on others and the environment around them, and they think about the short-term and long-term consequences of their actions. They are reliable and consistent in going beyond minimum expectations and in participating in activities that serve the greater good.

8. **Model integrity, ethical leadership, and effective management.**
Career-ready individuals consistently act in ways that align with personal and community-held ideals and principles. They employ ethical behaviors and actions that positively influence others. They have a clear understanding of integrity and act on this understanding in every decision. They use a variety of means to positively impact the direction and actions of a team or organization, and they recognize the short-term and long-term effects that management's actions and attitudes can have on productivity, morale, and organizational culture.

9. **Work productively in teams while integrating cultural and global competence.**
Career-ready individuals contribute positively to every team, as both team leaders and team members. To avoid barriers to productive and positive interaction, they apply an awareness of cultural differences. They interact effectively and sensitively with all members of the team and find ways to increase the engagement and contribution of other members.

10. **Demonstrate creativity and innovation.**
Career-ready individuals recommend ideas that solve problems in new and different ways and contribute to the improvement of the organization. They consider unconventional ideas and suggestions by others as solutions to issues, tasks, or problems. They discern which ideas and suggestions may have the greatest value. They seek new methods, practices, and ideas from a variety of sources and apply those ideas to their own workplace practices.

11. **Employ valid and reliable research strategies.**
Career-ready individuals employ research practices to plan and carry out investigations, create solutions, and keep abreast of the most current findings related to workplace environments and practices. They use a reliable research process to search for new information and confirm the validity of sources when considering the use and adoption of external information or practices.

12. **Understand the environmental, societal, and economic impacts of decisions.**
Career-ready individuals understand the interrelated nature of their actions and regularly make decisions that positively impact other people, organizations, the workplace, and the environment. They are aware of and utilize new technologies, understandings, procedures, and materials and adhere to regulations affecting the nature of their work. They are cognizant of impacts on the social condition, environment, workplace, and profitability of the organization.

## Statement for Civil Rights

All educational and vocational opportunities are offered without regard to race, color, national origin, gender, or physical disability.