

NHA Certified Phlebotomy Technician Exam Guide

Updated August 2020

Overview

This document is designed to give instructors guidance on preparing students to become Certified Phlebotomy Technicians.

The National Healthcareer Association (NHA) provides an industry certification in phlebotomy that can be taken by high school students. NHA's certificate is called the **Certified Phlebotomy Technician (CPT)**.

This document is based on the September 2018 version of the NHA CPT exam.

Outline

In this guide, you will find:

1. NHA CPT exam eligibility requirements
2. Certification exam topic outline
3. HealthCenter21 modules recommended for CPT exam prep
4. An in-depth crosswalk of HealthCenter21 to the NHA Test Plan
5. Additional resources for NHA CPT exam prep

1. Eligibility Requirements for the NHA CPT Exam

In order to sit for the NHA CPT exam, students must have all of the following:

1. A high school diploma or GED equivalency
2. Successful completion of a CPT training program

High school students may earn provisional certificates prior to graduation. Key information to note includes:

1. High school students who meet eligibility requirements must register for the exam within 12 months before graduation
2. A provisional certificate expires 12 months from the exam date
3. After graduation, graduates may apply to convert the active provisional certificate to a full certificate

2. NHA CPT Exam Topic Outline

Core knowledge for a phlebotomy technician includes:

- Phlebotomy Fundamentals
- Safety and Compliance
- Patient Preparation
- Routine Blood Collections
- Special Collections
- Processing Specimens

The NHA CPT exam measures this knowledge by asking questions across six domains:

1. Safety and Compliance
2. Patient Preparation
3. Routine Blood Collections
4. Special Collections
5. Processing
6. Core Knowledge

For more details on the NHA CPT exam content, see www.nhanow.com

3. HealthCenter21 Modules Recommended for CPT Exam Prep

HealthCenter21 has many modules that will help your students pass the CPT exam. The chart below is an overview of the HealthCenter21 modules that prepare students for the exam:

Health Care Foundations	Patient Care Technician	Medical Office Assistant
<ul style="list-style-type: none">• Anatomy & Physiology• Bloodborne Pathogens• CPR and Basic Life Support• Emergency Care• Infection Control• Legal & Ethical Responsibilities• Personal Characteristics	<ul style="list-style-type: none">• Phlebotomy• Specimen Collection and Testing• The Health Assistant	<ul style="list-style-type: none">• Medical Office Assistant

See the next page for an in-depth crosswalk between HealthCenter21 and the NHA CPT Test Plan.

The coverage of each topic within HealthCenter21 is broken down as being High, Medium, Low, or Not Covered.

4. Crosswalk Between NHA CPT Test Plan & HealthCenter21

Domain 1: Safety and Compliance	HealthCenter21 Location	HealthCenter21 Coverage
Tasks:		
T1. Adhere to regulations regarding workplace safety (e.g., Occupational Safety and Health Administration, National Institute for Occupational Safety and Health).	Module: Phlebotomy Unit 1, Lesson 1 Module: Bloodborne Pathogens Unit 3, Lesson 1	High
T2. Adhere to regulations regarding operational standards (e.g., The Joint Commission, Clinical and Laboratory Standards Institute, Center for Disease Control).	Module: Specimen Collection and Testing Unit 1, Lesson 1	High
T3. Adhere to HIPAA regulations regarding protected health information.	Module: Medical Office Assistant Unit 3, Lesson 1	High
T4. Adhere to scope of practice and comply with ethical standards applicable to the practice of phlebotomy.	Module: Specimen Collection and Testing Unit 1, Lesson 1	High
T5. Perform quality control for laboratory equipment (e.g., maintain logs for equipment inspection, reporting and troubleshooting equipment issues).	Module: Specimen Collection and Testing Unit 4, Lesson 5	High
T6. Perform quality control (e.g., machine calibration, test controls, storage controls) for CLIA-waived tests.	Module: Specimen Collection and Testing Unit 4, Lesson 5	High
T7. Identify and dispose of sharps and biohazards according to Bloodborne Pathogens Standard.	Module: Phlebotomy Unit 1, Lesson 1 Module: Bloodborne Pathogens Unit 3, Lesson 1	High
T8. Follow exposure control plans in the event of occupational exposure.	Module: Bloodborne Pathogens Unit 3, Lesson 2	High
T9. Follow transmission-based precautions (e.g., airborne, droplet, contact).	Module: Infection Control Unit 3, Lesson 1	High

T10. Follow standard precautions regarding personal protective equipment (e.g., gloves, gowns, masks, shoe covers, respirators).	Module: Phlebotomy, Unit 1, Lesson 1 Module: Infection Control Unit 3, Lesson 2	High
T11. Use aseptic and infection control techniques throughout the phlebotomy process.	Module: Phlebotomy, Unit 1, Lesson 1 Module: Infection Control Unit 1, Lesson 3	High
T12. Follow hand hygiene guidelines to prevent the spread of infections.	Module: Infection Control Unit 1, Lesson 4	High
T13. Initiate first aid and CPR when necessary (e.g., check for DNR bands).	Module: CPR and Basic Life Support All Units Module: Emergency Care Unit 1, Lesson 1	High
T14. Comply with documentation and reporting requirements.	Module: Bloodborne Pathogens Unit 3, Lesson 4	High
Knowledge Of:		
K1. Resources and regulations regarding workplace safety (e.g., Occupational Safety and Health Administration, National Institute for Occupational Safety and Health, Center for Disease Control)	Module: Phlebotomy Unit 1, Lesson 1 Module: Bloodborne Pathogens Unit 3, Lesson 1	High
K2. Operational standards (e.g., The Joint Commission, Clinical and Laboratory Standards Institute, College of American Pathologists)	Module: Specimen Collection and Testing Unit 1, Lesson 1	High
K3. HIPAA regulations	Module: Medical Office Assistant Unit 3, Lesson 1	High
K4. Manufacturer recommendations for laboratory equipment	Module: Specimen Collection and Testing Unit 4, Lesson 2	High
K5. Quality control and assurance procedures (e.g., maintaining logs, checking reference ranges, troubleshooting)	Module: Specimen Collection and Testing Unit 1, Lesson 1	Medium

K6. Guidelines related to CLIA-waived tests	Module: Specimen Collection and Testing Unit 1, Lesson 1	High
K7. Bloodborne Pathogens Standard	Module: Bloodborne Pathogens Unit 3, Lesson 1	High
K8. Requirements related to biohazards (e.g., cleaning of blood spills, disinfection, disposal, OPIM) Requirements for sharps disposal	Module: Phlebotomy Unit 1, Lesson 1 Module: Bloodborne Pathogens Unit 3, Lesson 1	High
K9. Requirements for sharps disposal	Module: Phlebotomy Unit 1, Lesson 1	High
K10. Exposure control protocols (e.g., eye washing, handwashing, showers, notification requirements)	Module: Bloodborne Pathogens Unit 3, Lesson 5	High
K11. Standard precautions	Module: Phlebotomy, Unit 1, Lesson 1 Module: Infection Control Unit 3, Lesson 2	High
K12. Transmission based precautions (e.g., airborne, droplet, and contact)	Module: Infection Control Unit 3, Lesson 1	High
K13. Personal protective equipment	Module: Phlebotomy, Unit 1, Lesson 1 Module: Infection Control Unit 3, Lesson 2	High
K14. Hand hygiene guidelines	Module: Infection Control Unit 1 Lesson 4	High
K15. First aid and CPR	Module: CPR and Basic Life Support All units Module: Emergency Care Unit 1, Lesson 1	High

Domain 2: Patient Preparation	HealthCenter21 Location	HealthCenter21 Coverage
Tasks:		
T1. Introduce yourself to the patient and provide information, such as name, title, and department.	Module: Phlebotomy Unit 1, Lesson 2	High
T2. Positively identify the patient based on specific identifiers while following HIPAA guidelines.	Module: Phlebotomy Unit 1, Lesson 2 Module: Safety Precautions Unit 1	High
T3. Receive implied, informed, or expressed consent from the patient.	Module: Phlebotomy Unit 1, Lesson 2 Module: The Health Assistant Unit 6, Lesson 1	High
T4. Review and clarify the requisition form.	Module: Phlebotomy Unit 4, Lesson 4	Medium
T5. Verify patient compliance with testing requirements (e.g., fasting, medication, basal state) and proceed accordingly.	Module: Phlebotomy Unit 1, Lesson 2	Medium
T6. Interview patients to identify special considerations that may impact collections (e.g., allergies, medications, recent surgeries, history of fainting) and proceed accordingly.	Not Covered	Not Covered
T7. Explain the phlebotomy procedure to be performed to the patient.	Module: Phlebotomy Unit 1, Lesson 2	High
T8. Position the patient to maximize comfort and safety and optimize specimen collection.	Module: Phlebotomy Unit 1, Lesson 2	High
T9. Determine site for specimen collection, based on the Clinical and Laboratory Standards Institute standards, to minimize patient risk and optimize outcome.	Module: Phlebotomy Unit 4, Lesson 4	High

T10. Instruct patients on collection of non-blood specimens (e.g., stool, urine, semen, sputum).	Module: Specimen Collection and Testing Unit 1, Lesson 2	High
Knowledge Of:		
K1. Patient Identifiers	Module: Phlebotomy Unit 1, Lesson 2 Module: Safety Precautions Unit 1	High
K2. Informed, expressed, or implied consent requirements	Module: Phlebotomy Unit 1, Lesson 2 Module: Safety Precautions Unit 1	High
K3. Requirements of requisition forms (e.g., patient demographics, physician information, diagnosis code, tests ordered, test priority)	Not Covered	Not Covered
K4. Timing requirements of draws (e.g., peaks and troughs, stats, routines, time of day).	Not Covered	Not Covered
K5. Testing requirements (e.g., fasting, medication, basal state)	Not Covered	Not Covered
K6. Patient interviewing techniques	Module: Phlebotomy Unit 1, Lesson 2	Medium
K7. Variables that may impact collections (e.g., allergies, medications, recent surgeries, history of fainting)	Not Covered	Not Covered
K8. Special considerations (e.g., age, physical and mental condition)	Not Covered	Not Covered
K9. Non-blood specimen collection procedures	Module: Specimen Collection and Testing Unit 1, Lesson 2	High
K10. Minimum and maximum blood volume requirements	Not Covered	Not Covered
K11. Patient positioning	Module: Phlebotomy Unit 1, Lesson 2	High
K12. Site selection criteria	Module: Phlebotomy Unit 4, Lesson 4	High

Domain 3: Routine Blood Collections	HealthCenter21 Location	HealthCenter21 Coverage
Tasks:		
T1. Select and assemble equipment (e.g., evacuated tube system, syringe, winged collection set) needed for blood collection(s).	Module: Phlebotomy Unit 4, Lesson 4	High
T2. Verify quality of equipment (e.g., sterility, expiration date, manufacturer’s defects).	Module: Phlebotomy Unit 4, Lesson 4	High
T3. Follow standard tourniquet application and removal procedures.	Module: Phlebotomy Unit 4, Lesson 4	High
T4. Select final site through observation and palpation, for specimen collection.	Module: Phlebotomy Unit 4, Lesson 4	High
T5. Apply antiseptic agent to blood collection site.	Module: Phlebotomy Unit 4, Lesson 4	High
T6. Anchor below venipuncture site.	Module: Phlebotomy Unit 4, Lesson 4	High
T7. Insert venipuncture device.	Module: Phlebotomy Unit 4, Lesson 4	High
T8. Follow order of draw when performing venipuncture.	Module: Phlebotomy Unit 4, Lesson 4	High
T9. Ensure patient safety throughout the collection by identifying problematic patient signs and symptoms (e.g., syncope, diaphoresis, nausea, seizure).	Module: Phlebotomy Unit 4, Lesson 5	Low
T10. Recognize and respond to potential complications resulting from procedure (e.g., lack of blood flow, hematoma, petechiae, nerve pain).	Module: Phlebotomy Unit 4, Lesson 5	High
T11. Remove venipuncture device.	Module: Phlebotomy Unit 4, Lesson 4	High
T12. Invert evacuated tubes with additives according to procedural guidelines.	Module: Phlebotomy Unit 4, Lesson 4	High
T13. Perform dermal puncture for capillary collection based on patient age and condition.	Module: Phlebotomy Unit 2, Lesson 1	High
T14. Follow order of draw when performing capillary collection.	Module: Phlebotomy Unit 4, Lesson 3	High

T15. Label all specimens.	Module: Specimen Collection & Testing Unit 1, Lesson 2	High
T16. Perform post-procedural patient care.	Module: Phlebotomy Unit 4, Lesson 5	High
Knowledge Of:		
K1. Blood collection devices	Module: Phlebotomy Unit 4, Lesson 2	High
K2. Considerations for device selection (e.g., current health status, stated history, vein size and patency, requisition requirements)	Module: Phlebotomy Unit 4, Lesson 2	High
K3. Needle gauge sizes and lengths	Module: Phlebotomy Unit 4, Lesson 2	High
K4. Evacuated tubes required for laboratory testing (e.g. colors, additives and preservatives)	Module: Phlebotomy Unit 4, Lesson 3	High
K5. Order of draw, number of tube inversions, angle of tube insertion, fill level/ratios	Module: Phlebotomy Unit 4, Lesson 3 Module: Phlebotomy Unit 4, Lesson 4	High
K6. Equipment quality control checks (e.g., inspection of needles, check for cracks in tubes, check expiration dates)	Module: Phlebotomy Unit 4, Lesson 4	High
K7. Standard tourniquet application and removal procedures	Module: Phlebotomy Unit 4, Lesson 4	High
K8. Palpation techniques	Module: Phlebotomy Unit 4, Lesson 4	High
K9. Skin integrity, venous sufficiency, contraindications	Module: Phlebotomy Unit 4, Lesson 4	High
K10. Types of antiseptic agents and methods of application	Module: Phlebotomy Unit 4, Lesson 4	Low
K11. Techniques for anchoring the vein	Module: Phlebotomy Unit 4, Lesson 4	High
K12. Angle of needle insertion and withdrawal	Module: Phlebotomy Unit 4, Lesson 4	High

K13. Problematic patient signs and symptoms during collection (e.g., syncope, diaphoresis, nausea, seizures)	Module: Phlebotomy Unit 4, Lesson 5	High
K14. Potential complications resulting from procedure	Module: Phlebotomy Unit 4, Lesson 5	High
K15. Adjustments for establishing blood flow (e.g., redirection, increase or decrease needle angle, change tube)	Module: Phlebotomy Unit 4, Lesson 4	High
K16. Procedural steps when removing tourniquet, tubes, and needle	Module: Phlebotomy Unit 4, Lesson 4	High
K17. Use of needle safety devices (e.g., retractable, sheath)	Module: Phlebotomy Unit 1, Lesson 1	Low
K18. Dermal puncture procedures for capillary collection	Module: Phlebotomy Unit 2 & Unit 3	High
K19. Order of draw for capillary collection	Not Covered	Not Covered
K20. Bandaging procedures and considerations (e.g., allergies, skin types, patient age and condition)	Module: Phlebotomy Unit 4, Lesson 4	Low
K21. Labeling procedures and requirements	Module: Phlebotomy Unit 4, Lesson 4	High
K22. Post-procedural complications and precautions	Module: Phlebotomy Unit 4, Lesson 5	High

Domain 4: Special Collections	HealthCenter21 Location	HealthCenter21 Coverage
Tasks:		
T1. Prepare peripheral blood smears.	Not Covered	Not Covered
T2. Perform blood culture collections.	Not Covered	Not Covered
T3. Assist other health care professionals with specimen collection.	Module: Phlebotomy Unit 1, Lesson 1	Medium
T4. Collect blood samples for inborn errors of metabolism (e.g., PKU, galactosemia).	Module: Phlebotomy Unit 3, Lesson 2	High
T5. Perform phlebotomy for blood donations.	Not Covered	Not Covered

T6. Calculate volume requirements in patients who are at higher risk (e.g., pediatric, geriatric) to avoid causing iatrogenic anemia.	Not Covered	Not Covered
T7. Perform non-blood specimen collection (e.g., throat cultures, nasal swab, wound cultures).	Module: Specimen Collection and Testing Units 2, 4, & 5	Medium Not Covered: Skin preparation for blood alcohol level collection
Knowledge Of:		
K1. Equipment needed for peripheral blood smears (e.g., slides, lancet, tubes)	Module: Phlebotomy Unit 2, Lesson 1	High
K2. Techniques to perform peripheral blood smears	Not Covered	Not Covered
K3. Type of sample for blood smears and timing requirements	Not Covered	Not Covered
K4. Techniques and locations for blood culture collections	Not Covered	Not Covered
K5. Equipment needed for blood culture collections (e.g., needle type, hub/adaptor, bottle type)	Not Covered	Not Covered
K6. Skin preparation for blood culture collections	Not Covered	Not Covered
K7. Volume requirements for blood culture collections	Not Covered	Not Covered
K8. Order of draw for blood culture collections	Module: Phlebotomy Unit 4, Lesson 3	High
K9. Blood culture bottle preparation procedures	Not Covered	Not Covered
K10. Equipment and transfer procedures needed when assisting other health care professionals with specimen collection	Not Covered	Not Covered
K11. Techniques to collect blood on filter paper/Guthrie cards	Module: Phlebotomy Unit 2, Lesson 1	Medium
K12. Standards for blood donation (e.g., check hemoglobin and hematocrit levels, weight, and complete patient screening)	Not Covered	Not Covered
K13. Pediatric volume calculations	Not Covered	Not Covered
K14. Equipment and techniques for performing non-blood specimen collection (e.g., throat cultures, nasal swab, wound cultures)	Module: Specimen Collection and Testing Unit 1, Lesson 2	High
K15. Skin preparation for blood alcohol level collection	Not Covered	Not Covered

Domain 5: Processing	HealthCenter21 Location	HealthCenter21 Coverage
Tasks:		
T1. Prepare specimens (e.g., centrifuging, aliquoting, freezing or refrigeration) for testing or transport.	Not Covered	Not Covered
T2. Maintain integrity of specimens based on handling requirements (e.g., temperature, light, time).	Not Covered	Not Covered
T3. Adhere to chain of custody guidelines when required (e.g., forensic studies, blood alcohol, drug screen).	Not Covered	Not Covered
T4. Coordinate communication between non-laboratory personnel for processing and collection.	Not Covered	Not Covered
T5. Input and retrieve specimen data using available laboratory information system.	Not Covered	Not Covered
T6. Recognize and report critical values for point of care testing.	Module: Specimen Collection and Testing Unit 1, Lesson 1	Not Covered
T7. Distribute laboratory results to ordering providers.	Not Covered	Not Covered
Knowledge of:		
K1. Centrifuging procedures and techniques	Not Covered	Not Covered
K2. Aliquoting procedures and techniques	Not Covered	Not Covered
K3. Handling, storage, transportation and disposal requirements for specimens (e.g., biohazard bags/containers, temperature, exposure to light, viability guidelines)	Not Covered	Not Covered
K4. Chain of custody guidelines	Module: Specimen Collection and Testing Unit 1, Lesson 1	High
K5. Internal and external databases	Module: Specimen Collection and Testing Unit 1, Lesson 2	High
K6. Basic protocol to distribute laboratory results	Module: Phlebotomy Unit 4, Lesson 5	High
K7. Laboratory requirements	Not Covered	Not Covered

Domain 6: Core Knowledge	HealthCenter21 Location	HealthCenter21 Coverage
K1. The role of phlebotomy technicians in laboratory testing	Module: Phlebotomy Unit 4, Lesson 1	High
K2. The role of phlebotomy technicians in patient care	Module: Phlebotomy Unit 4, Lesson 1	High
K3. Medical terminology related to phlebotomy	Not covered	Not covered
K4. Aseptic techniques	Module: Phlebotomy Unit 1, Lesson 1	High
K5. Blood components (e.g., serum, plasma, whole blood, RBC, WBC, platelets)	Module: Anatomy and Physiology Unit 7, Lesson 1	High
K6. Blood group systems (A, B, AB, O, Rh)	Module: Anatomy and Physiology Unit 7, Lesson 1	High
K7. Phlebotomy-related vascular anatomy (e.g., antecubital fossa, hand, foot)	Module: Phlebotomy Unit 4, Lesson 1	High
K8. Cardiovascular system (e.g., anatomy and physiology of the heart, pulmonary and systemic blood flow, blood vessels)	Module: Anatomy and Physiology Unit 7, Lesson 1	High
K9. Hemostasis and coagulation process	Module: Phlebotomy Unit 2, Lesson 1	High
K10. The impact of pre-analytical errors on test results	Not Covered	Not Covered
K11. Needlestick Safety and Prevention Act	Module: Bloodborne Pathogens Unit 3, Lesson 1	High
K12. Documentation and reporting requirements	Module: Phlebotomy Unit 4 Lesson 1	High
K13. Verbal and non-verbal communication (e.g., active listening; pace, tone, and volume of voice; personal space; use of jargon)	Module: Phlebotomy Unit 1, Lesson 2	Medium
K14. Patient characteristics impacting communication (e.g., cultural and religious differences, language barriers, cognitive level, developmental stage)	Module: Phlebotomy Unit 1, Lesson 2	Medium
K15. Professionalism (e.g., integrity, punctuality, etiquette, respect, professional presentation)	Module: Personal Qualities Unit 1	High
K16. Ethical standards applicable to the practice of phlebotomy (e.g., NHA code of ethics)	Module: Legal & Ethical Responsibilities Unit 4, Lesson 2	High

5. Additional Resources for NHA CPT Exam Prep

Because HealthCenter21 does not cover 100% of the information students need to pass the NHA CPT exam, instructors will need to include additional supplementary resources.

Resources from NHA

- Video - [What It's Like to Take an NHA Certification](#)
- PDF - [2016 NHA CPT Test Plan](#)
- Online Study Guide – [CPT Online Study Guide from NHA](#)

How Health Science Teachers Use HealthCenter21 for NHA CPT Exam Prep

- Careerline Tech Center, MI – [Preparing Students for NHA Phlebotomy Certification](#)