



## INSTRUCTIONAL PACKAGE

AHS 141

PHLEBOTOMY FOR THE HEALTHCARE  
PROVIDER

2018 - 2019

# INSTRUCTIONAL PACKAGE

## PART I: COURSE INFORMATION

Effective Term: 201810

COURSE PREFIX: AHS 141

COURSE TITLE: Phlebotomy for the Healthcare Provider

CONTACT HOURS: 2-3-3

CREDIT HOURS: 3

### **RATIONALE FOR THE COURSE:**

AHS 141 is intended to prepare the student for their clinical rotations. The student will learn the proper form for venipuncture, with an emphasis on safety. They will also learn the proper technique on using the evacuated tube system, the winged infusion system, and capillary lancets. The students will learn CLSI recommendations for special handling during transport of blood specimens when specific tests are requested.

### **COURSE DESCRIPTION:**

This course contains the essential theory, skills, and special procedures required to meet venipuncture needs in hospitals, clinics, and other healthcare settings.

### **PREREQUISITES/CO-REQUISITES:**

COREQUISITES INCLUDE: BIO 112 or BIO 211, AHS 106, AHS 102

### **REQUIRED MATERIALS:**

Please visit the Bookstore online site for most current textbook information. Use the direct link below to find textbooks.

### **[BOOKSTORE.](#)**

Enter the semester, course prefix, number and section when prompted and you will be linked to the correct textbook.

### **TECHNICAL REQUIREMENTS:**

Access to Desire2Learn (D2L), HGTC's student portal for course materials.  
WaveNet and D2L email access.

### **CLASSROOM ETIQUETTE:**

As a matter of courtesy to other students and your professor, please turn off cell phones and other communication/entertainment devices before class begins. If you are monitoring for an emergency, please notify your professor prior to class and switch cell phone ringers to vibrate.

### **PLAGIARISM & CHEATING:**

Refer to the College catalog & Student handbook. The student may be assigned a failing grade for the course, or may be required by the professor to withdraw from the course and/or the phlebotomy program.

## **HEALTH SCIENCE DIVISION DRUG POLICY**

Consistent with the Federal Drug-Free Schools and Communities Act Amendments of 1989, it is the policy of Horry-Georgetown Technical College that all students and employees be committed to creating and maintaining a drug free environment. Use of substances which interfere with the judgment and/or motor coordination of students in the health field pose unacceptable risk for patients, health care agencies, and the faculty of the College. Student conduct should be in conformity with the high moral and ethical standards of a health professional, as well as within the legal constraints of any law-abiding community. Students are strictly prohibited from being under the influence of alcohol or any other drug while engaged in any portion of their formal educational experience.

## **Part II: Student Learning Outcomes**

1. Identify the importance of phlebotomy procedures to the overall care of the patient.
2. Describe essential elements of laboratory test requisitions, specimen labels, and test results.
3. Identify key elements of the Health Insurance Portability and Accountability Act (HIPAA).
4. Explain the infection control policies and procedures that must be followed in specimen collection and transportation, according to Centers for Disease Control and Prevention (CDC), and Occupational Safety and Health Administration (OSHA).
5. Explain the safety policies and procedures that must be followed in specimen collection and transportation.
6. Explain special handling of specific tests, according to CLSI recommendations.
7. List common diagnostic tests associated with blood collection tubes.
8. List pathologic conditions and common laboratory tests associated with the cardiovascular and lymphatic systems.
9. List the different preanalytical errors associated with venipuncture.
10. List the order of draw along with additives and tests for each tube drawn.
11. Describe the differences and similarities between whole blood, serum, and plasma.
12. Identify and describe the structures and functions of different types of blood vessels.
13. Locate and name the veins most commonly used for phlebotomy procedures.
14. Define hemostasis and describe the basic process of coagulation and fibrinolysis.
15. Describe the latest phlebotomy safety supplies and equipment and evaluate their effectiveness in blood collection.
16. 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.
17. List examples of substances that can interfere in clinical analysis of blood constituents, and describe methods used to prevent these interferences.
18. Describe the steps of a venipuncture procedure using the evacuated tube method, syringe method, and butterfly method according to the CLSI Approved Standard.
19. Explain why capillary blood from a skin puncture is different from blood taken by venipuncture and the impact on laboratory tests.
20. Describe how a health care worker should react to physical and emotional changes associated with the elderly.

## **COURSE LEARNING OUTCOMES and ASSESSMENTS\*:**

### **Module #1 Test #1**

Material Covered:

Chapters 4, 8, & 9

1. Explain the infection control policies and procedures that must be followed in specimen collection and transportation
2. Define the terms *health care–associated*, *health care–acquired*, and *nosocomial infections*.
3. Identify the basic programs for infection control and isolation procedures.
4. Explain the proper techniques for handwashing, gowning, gloving, masking, double bagging, and entering and exiting the various isolation areas.
5. Identify steps to avoid transmission of blood-borne pathogens.
6. Identify ways to reduce risks for infections and accidental needle sticks.
7. Describe measures that can break each link in the chain of infection.
8. Identify the steps to take in the case of blood-borne pathogen exposure
9. Describe the latest phlebotomy safety supplies and equipment and evaluate their effectiveness in blood collection.
10. 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.
11. Identify the various supplies that should be carried on a specimen collection tray when collecting blood by venipuncture or skin puncture.
12. Identify the types of safety equipment needed to collect blood by venipuncture and skin puncture.
13. Describe preanalytical (preexamination) complications related to phlebotomy procedures and impacting patient safety.
14. Explain how to prevent and/or handle complications in blood collection.
15. List at least five factors about a patient's physical disposition (i.e., makeup) that can affect blood collection.
16. List examples of substances that can interfere in clinical analysis of blood constituents, and describe methods used to prevent these interferences.
17. Describe how allergies, a mastectomy, edema, and thrombosis can affect blood collection.
18. List preanalytical complications that can arise with test requests and identification.
19. Describe complications associated with tourniquet pressure and fist pumping.
20. Identify how the preanalytical factors of syncope, petechiae, neurological complications, hemoconcentration, hemolysis, and intravenous therapy affect blood collection.
21. Describe methods used to prevent these interferences.

### **Module #2 Test #2**

Materials covered

Chapters 10, 11, & 12

1. Describe the steps a health care worker should take in preparing him- or herself for a venipuncture procedure.
2. List supplies and equipment used in a typical venipuncture procedure.
3. Describe detailed steps in the patient identification process and what to do if information is missing.
4. Describe methods for hand hygiene.

5. Identify the most appropriate sites for venipuncture and situations when these sites might not be acceptable.
6. Identify alternative sites for the venipuncture procedure.
7. Describe the process and time limits for applying a tourniquet to a patient's arm.
8. Describe the decontamination process and the agents used to decontaminate skin for routine blood tests and blood cultures.
9. Describe the steps of a venipuncture procedure using the evacuated tube method, syringe method, and butterfly method according to the CLSI Approved Standard.
10. Describe the "order of draw" for collection tubes.
11. Describe how to react when the patient has fainted or experiences nausea, vomiting, or convulsions.
12. Define and explain the clinical reason for the terms *fasting*, *STAT*, and *timed specimens*.
13. Describe the reasons for acquiring capillary blood specimens and list the laboratory tests for which capillary specimens may be collected.
14. Explain why capillary blood from a skin puncture is different from blood taken by venipuncture and the impact on laboratory tests.
15. Identify the proper sites for performing a skin puncture procedure and explain why it is necessary to control the depth of the incision.
16. Describe the procedure for performing a skin puncture.
17. Describe the procedure for making blood smears and why they are used in the laboratory.
18. Describe at least three sources of preexamination error that can occur during blood specimen handling.
19. Describe at least three sources of preexamination error that can occur during blood specimen transportation.
20. Describe at least three sources of preexamination error that can occur during specimen processing or storage.
21. Name three methods commonly used to transport specimens

### **Module #3 Test #3**

Materials Covered

Chapters 1, 2, 3

1. Define phlebotomy and identify health professionals who perform phlebotomy procedures.
2. Identify the importance of phlebotomy procedures to the overall care of the patient.
3. List professional competencies for phlebotomists and key elements of a performance assessment.
4. List members of a health care team who interact with phlebotomists.
5. Describe the roles of clinical laboratory personnel and common laboratory departments/sections.
6. Describe health care settings in which phlebotomy services are routinely performed.
7. Explain components of professionalism and desired character traits for phlebotomists.
8. Describe healthy behaviors, fitness, and coping skills to reduce stress in the workplace.
9. List the basic tools used in quality improvement activities and give examples of how a phlebotomist can participate in quality improvement activities.
10. Define the difference between quality improvement and quality control.
11. Outline the basic communication loop.
12. Describe methods for effective verbal and nonverbal communication, active listening, and written communication.
13. List examples of positive and negative body language.
14. Describe methods to achieve cultural competence and sensitivity in the workplace.
15. Describe the basic components of the medical record and provide examples of how to maintain confidentiality and privacy related to patient information.

16. Describe essential elements of laboratory test requisitions, specimen labels, and test results.
17. Identify potential clerical or technical errors that may occur during labeling or documentation of phlebotomy procedures.
18. Identify essential components and functions of computers in health care and list ways that health care workers use them to accomplish job functions.
19. Define basic ethical and legal terms and explain how they differ.
20. Describe types of consent used in health care settings, including *informed consent* and *implied consent*.
21. Describe how to avoid litigation as it relates to blood collection.
22. Define *standard of care* from a legal and a health care provider's perspective.
23. Identify key elements of the Health Insurance Portability and Accountability Act (HIPAA).
24. List key factors common to health professional liability insurance policies.
25. List common issues in lawsuits against health care providers and prevention tips to avoid lawsuits in phlebotomy.

#### **Module #4 Test #4**

Materials Covered

Chapters 5, 6, 7

1. Discuss safety awareness for health care workers.
2. Explain the measures that should be taken for fire, electrical, radiation, mechanical, and chemical safety in a health care facility.
3. Describe the essential elements of a disaster emergency plan for a health care facility.
4. Explain the safety policies and procedures that must be followed in specimen collection and transportation.
5. Describe the safe use of equipment in health care facilities.
6. List three precautions that can reduce the risk of injury to patients.
7. Define medical terminology using word elements such as roots, prefixes, and suffixes.
8. Define words commonly used in the clinical laboratory.
9. Describe how laboratory testing is used to assess body functions and disease.
10. Define the differences among the terms *anatomy*, *physiology*, and *pathology*.
11. Describe the directional terms, anatomic surface regions, and cavities of the body.
12. Describe the role of homeostasis in normal body functioning.
13. Describe the purpose, function, and structural components of the major body systems.
14. Identify examples of pathologic conditions associated with each organ system.
15. Describe the types of specimens that are analyzed in the clinical laboratory.
16. List common diagnostic tests associated with each organ system.
17. Define the functions of the cardiovascular and lymphatic systems.
18. Identify and describe the structures and functions of the heart.
19. List pathologic conditions and common laboratory tests associated with the cardiovascular and lymphatic systems.
20. Trace the flow of blood through the cardiovascular system
21. Describe different types of blood vessels, the properties of arterial blood, venous blood, and capillary blood.
22. Identify and describe the cellular and noncellular components of blood.
23. Describe the differences and similarities between whole blood, serum, and plasma.
24. Locate and name the veins most commonly used for phlebotomy procedures.
26. Define hemostasis and describe the basic process of coagulation and fibrinolysis

***\*Students – please refer to the Instructor’s Course Information sheet for specific information on assessments and due dates.***

### **Part III: Grading and Assessment**

#### **EVALUATION OF REQUIRED COURSE MEASURES/ARTIFACTS\***

Students’ performance will be assessed and the weight associated with the various measures/artifacts are listed below.

#### **EVALUATION\***

Homework/Competency	10%
Quizzes	25%
Tests	40%
Final Exam	<u>25%</u>
	100%

**Homework:** Assigned homework will be due at the start of each class. No late homework will be accepted.

**Quizzes:** Quizzes will not be announced, nor will they be allowed to be made up. If a student is absent, they will receive a zero for the quiz.

**Tests:** Please be on time for exams. If a student is absent for an exam, it will be made up in the testing center. It must be made up by the following lecture class. If the test is on a Monday and the student is absent for it, they must take it before the following Monday lecture class. Any student not making up a test within this time frame will receive a zero for the test.

**Final Exam:** The final exam will be administered according to the HGTC exam calendar. Students are expected to take the final exam at the scheduled time. The student should contact the professor immediately if unable to take the final exam due to extraordinary circumstances.

***\*Students, for the specific number and type of evaluations, please refer to the Instructor's Course Information Sheet.***

#### **GRADING SYSTEM:**

The following scale will be used to assign final letter grades.

A	=	90 – 100
B	=	80 – 89
<u>C</u>	=	<u>70 – 79</u>
D	=	60 – 69

Grades earned in courses impact academic progression and financial aid status. Before withdrawing from a course, be sure to talk with your instructor and financial aid counselor about the implications of that course of action. D's, F's, W's, WF's and I's also negatively impact academic progression and financial aid status.

The Add/Drop Period is the first 5 days of the semester for **full term** classes. Add/Drop periods are shorter for accelerated format courses. Please refer to the academic calendar for deadlines for add/drop ([Academic Calendar](#)). You must attend at least one meeting of all of your classes during that period. If you do not, you will be dropped from the course(s) and your Financial Aid will be reduced accordingly.

## **Part IV: Attendance**

Horry-Georgetown Technical College maintains a general attendance policy requiring students to be present for a minimum of eighty percent (80%) of his or her classes in order to be eligible to receive credit for any course. However, due to the varied nature of courses taught at the College, a more rigid attendance policy may be required by individual instructors. At a minimum, a student may be withdrawn from a course(s) after he or she has been absent in excess of ten percent (10%) of the total contact hours for a course. **Instructors define absentee limits for their class at the beginning of each term; please refer to the Instructor Course Information Sheet.**

Students are responsible for all course work and class assignments; therefore, they are expected to regularly and promptly attend each meeting of classes for which they are enrolled. Students should limit absences to those that are unavoidable and, with the professor's consent, should make up all work missed. **Unannounced quizzes will not be made up and late homework will not be accepted.** If a student is absent on test day, they are responsible for contacting the professor and making that test up within one week of original date taken. It must be made up prior to the following classroom lecture.

If they do not take the test within one week, they will receive a 0 grade for that test. Any test not taken with the class on test day will need to be made up at the testing center.



A one-day notice is needed for the testing center to administer a test. **A student may miss 10% of the total lecture classroom hours for any reason.** The student should also understand that arriving to class late or leaving class early counts towards the allotted hours of time missed. **Once the student misses 10% of the hours either lecture or lab, the student will be terminated from the course and will not be eligible to attempt the NHA certification examination.** Tardiness should be avoided. **Three tardies count as one absence.** If tardy more than 30 minutes, it will count as an absence. If a student leaves within one hour of class starting, it will also count as an absence.

Attendance records begin on the first day of class for both new and returning students, regardless when he/she registers during the five-day registration and add/drop period at the beginning of each term.

### **Lab Attendance Requirements**

The lab meeting times are included in the attendance policy in the same manner as a regular lecture meeting. This means that a student may miss 10% of the lab hours, and will be withdrawn from the course if more time is missed.

A student can be withdrawn from the course for a total of 10% absence from either lecture, or 10% absence from lab.

The student will be expected to pass the lab competencies. The lab competencies include hand washing, PPE's, tourniquet tying, venipuncture procedures, and butterfly procedures. All competencies will include "criticals." **If any critical is missed during the competency, the competency will be stopped, and the student will receive a grade no higher than a 70% for that competency.** All competency grades will be given by the first attempt. If on the second attempt, the student shows they are competent in that procedure, the original grade stands. The competencies must be passed regardless, to pass to the AHS 143 clinical portion of the program. **If a student does not pass any competency after three attempts, they will be withdrawn, with a "W", from the AHS 141 course.**

If a student is absent for the Lab Competency, they will receive a 0. The student will still be expected to show they are competent in the procedure being tested. They will have two more attempts to show competency. If a student skips a semester between AHS141 and AHS 143, they will be responsible for all requirements, including immunizations, to proceed to the next course. If a student skips more than one semester between AHS 141 and AHS 143, the student will need to pass a written exam, as well as a competency test for venipuncture and winged infusions procedures before they can move on to AHS 143.

## **Part V: Student Resources**



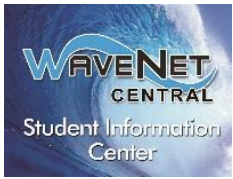
### **The Student Success and Tutoring Center (SSTC)**

The SSTC offers to all students the following **free** resources:

- 1. Academic coaches** for most subject areas, **Writing Center Support**, and **college success skills**.
- 2. On-line student success and academic support resources.**

Visit the SSTC website: [Student Success & Tutoring Center](#) and visit the student services tab in your WaveNet account to schedule appointments using TutorTrac. For more information, call: SSTC Conway, 349-7872; SSTC

Grand Strand, 477-2113; and SSTC Georgetown, 520-1455. Room locations and Live Chat is available on the SSTC website.



## Student Information Center: WaveNet Central (WNC)

WNC offers to all students the following **free** resources:

1. **Getting around HGTC:** General information and guidance for enrollment!
2. Use the [Online Resource Center \(ORC\)](#) for COMPASS support, technology education, and online tools.
3. **Drop-in technology support or scheduled training** in the Center or in class.
4. **In-person workshops, online tutorials and more services** are available.

Visit the WNC website: [Wavenet Central](#). Live Chat and Center locations are posted on the website. Or please call one of the following locations: WNC Conway, 349-5182; WNC Grand Strand, 477-2076; and WNC Georgetown, 520-1473.

**Student Testing:** (If course is offered in multiple format include this section, delete if only F2F sections are offered.)

Testing in an **online/hybrid** course may be accomplished in a variety of ways:

- Test administered within D2L
- Test administered in writing on paper
- Test administered through Publisher Platforms

Further more tests may have time limits and/or require a proctor.

Proctoring can be accomplished either face-to-face at an approved site or online through RPNOW, our online proctoring service. To find out more about proctoring services, please visit the [Online Testing](#) section of the HGTC's Testing Center webpage.

The **Instructor Information Sheet** will have more details on test requirements for your course.

## Disability Services

HGTC is committed to providing an accessible environment for students with disabilities. Inquiries may be directed to Jocelyn Williams, Director of Student Development on the Conway Campus Jaime Davis, Counselor/Advisor on the Georgetown Campus or Kristin Griffin, Counselor on the Grand Strand Campus. These individuals will review documentation of the student's disability and, in a confidential setting with the student, develop an educational accommodation plan.

Note: It is the student's responsibility to self-identify as needing accommodations and to provide acceptable documentation. After a student has self-identified and submitted documentation of a disability, accommodations may be determined, accepted, and provided.

## Statement of Equal Opportunity/Non-Discrimination Statement

Horry Georgetown Technical College prohibits discrimination and harassment, including sexual harassment and abuse, on the basis of race, color, gender, national or ethnic origin, age, religion, disability, marital status, veteran status, sexual orientation, gender identity, or pregnancy in educational programs and/or activities.

### **Title IX Requirements**

Horry Georgetown Technical College prohibits the offenses of domestic violence, dating violence, sexual assault, and stalking. Any student who believe he or she has experienced or witnessed discrimination including sexual harassment, domestic violence, dating violence, sexual assault or stalking is encouraged to report such incidents to one of the College's Title IX Coordinators.

\*Faculty and Staff are required to report incidents to the Title IX Coordinators when involving students. The only HGTC employees exempt from mandatory reporting are licensed mental health professionals (only as part of their job description such as counseling services).

<b>Inquiries regarding the non-discrimination policies:</b>	
Student and prospective student inquiries concerning Section 504, Title II, and Title IX and their application to the College or any student decision may be directed to the Associate Vice President for Student Affairs.	Employee and applicant inquiries concerning Section 504, Title II, and Title IX and their application to the College may be directed to the Associate Vice President for Human Resources.
<b>Dr. Melissa Batten, AVP Student Affairs</b> <i>Title IX Coordinator</i> Building 1100, Room 107A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5228 <a href="mailto:Melissa.Batten@hgtc.edu">Melissa.Batten@hgtc.edu</a>	<b>Jacquelyne Snyder, AVP Human Resources</b> <i>Section 504, Title II, and Title IX Coordinator</i> Building 200, Room 212A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5212 <a href="mailto:Jacquelyne.Snyder@hgtc.edu">Jacquelyne.Snyder@hgtc.edu</a>