INSTRUCTIONAL PACKAGE

AHS 141

PHLEBOTOMY FOR THE HEALTHCARE PROVIDER

2020-2021

Part I: Course Information

Effective Term: 2020-2021

COURSE PREFIX: AHS 141

COURSE TITLE: Phlebotomy for the Healthcare Provider I)

CONTACT HOURS: 3.0

CREDIT HOURS: 2-3-3

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:
COREQUISTES INCLUDE: BIO 110 or BIO 112, or BIO 211 AHS 106

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

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

STUDENT IDENTIFICATION VERIFICATION:

Students enrolled in online courses will be required to participate in a minimum of one (1) proctored assignment and/or one (1) virtual event to support student identification verification. Please refer to your Instructor Information Sheet for information regarding this requirement

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 DIVISON 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

COURSE LEARNING OUTCOMES and ASSESSMENTS*:
Module #1 Test #1
Material Covered:
Chapters 4, 8, 9
Assessments-Unit test, lab competencies.
Chapter 4 Infection Control
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 needlesticks.
7. Describe measures that can break each link in the chain of infection.
9. Describe the components for the chain of infection.
10. State the central purpose of hand hygiene.
11 .Describe the CDC procedure for collection and transport of specimens for Ebola virus testing.
12. Describe the major organisms responsible for healthcare-associated infections.

Chapter 8 Blood Collection Equipment

1. Describe the latest phlebotomy safety supplies and equipment and evaluate their effectiveness in blood collection.
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 collected blood, and the vacuum collection tube color codes for these anticoagulants and additives.
3. Identify the various supplies that should be carried on a specimen collection tray when collecting blood by venipuncture or skin puncture.
4. Identify the types of safety equipment needed to collect blood by venipuncture and skin puncture.
5. List substances that can interfere in clinical testing of blood analytes.

Chapter 9 Preexamination/Preanalytical Complications Causing Medical Errors in Blood Collection

1. Describe preanalytical (preexamination) complications related to phlebotomy procedures and impacting patient safety.
2. Explain how to prevent and/or handle complications in blood collection.
3. List at least five factors about a patient's physical disposition (i.e., makeup) that can affect blood collection.
4. List examples of substances that can interfere in clinical analysis of blood constituents, and describe methods used to prevent these interferences.
5. Describe how allergies, a mastectomy, edema, and thrombosis can affect blood collection.
6. List preanalytical complications that can arise with test requests and identification.
7. Describe complications associated with tourniquet pressure and fist pumping.
8. Identify how the preanalytical factors of syncope, petechiae, neurological complications, hemoconcentration, hemolysis, and intravenous therapy affect blood collection.
9. Describe methods used to prevent these interferences.

Module #2 Test 2

Material Covered
Chapters 10, 11, 12
Assessments- Unit test, lab competencies

Chapter 10 Venipuncture Procedures

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*.

Chapter 11 Capillary Blood Specimens

1. Describe the reasons for acquiring capillary blood specimens for adults, children, and infants.
2. List common laboratory tests for which capillary specimens may be collected.
3. Explain why capillary blood from a skin puncture is different from blood taken by venipuncture and the impact on laboratory tests.
4. Identify the proper sites for performing a skin puncture procedure and explain why it is necessary to control the depth of the incision.
5. Describe the procedure for performing a skin puncture.
6. Describe the purpose and procedure for making blood smears and and the characteristics of an acceptable blood smear.

Chapter 12 Specimen Handling, Transportation, and Processing

1. Describe at least three sources of preexamination error that can occur during blood specimen handling.
2. Describe at least three sources of preexamination error that can occur during blood specimen transportation.
3. Describe at least three sources of preexamination error that can occur during specimen processing or storage.
4. Name three methods commonly used to transport specimens.
5. Describe at least three basic shipping requirements for the safe transportation of infectious substances.

Module #3 Test 3

Materials Covered
Chapters 1, 2, 3
Assessments-Unit test, classroom activity

Chapter 1 Phlebotomy Practice and Quality Assessment

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, the role in delivering, collecting and/or transporting specimens the laboratory, and key elements of a performance assessment.
4. List members of a health care team who interact with phlebotomists.
5. Describe the roles and qualifications of clinical laboratory personnel and common laboratory departments/sections.
6. Describe the health care delivery system and settings in which phlebotomy services are routinely performed.

7. Describe the clinical laboratory workflow pathway, or testing cycle, from beginning laboratory requests to reporting laboratory test results.
8. Explain components of professionalism and desired character traits for phlebotomists.
9. Describe coping skills that are used to reduce stress in the workplace.
10. List the basic tools used in quality improvement activities and give examples of how a phlebotomist can participate in quality improvement activities.
11. Define the difference between quality improvement and quality control procedures.

Chapter 2 Communication, Computer Essentials, and Documentation

1. Outline the basic communication loop.
2. Describe methods for effective verbal and nonverbal communication, active listening, and written communication.
3. List examples of positive and negative body language.
4. Describe methods to achieve cultural competence and sensitivity in the workplace.
5. Describe the basic components of the medical record and provide examples of how to maintain confidentiality and privacy related to patient information.
6. Describe essential elements of laboratory test requisitions, specimen labels, and test results.
7. Identify potential clerical or technical errors that may occur during labeling or documentation of phlebotomy procedures.
8. Identify essential components and functions of computers in health care and list ways that health care workers use them to accomplish job functions.

Chapter 3 Professional Ethical, Legal, and Regulatory Issues

1. Define basic ethical and legal terms and explain how they differ.
2. Differentiate ethics and bioethics.</para></objective>
3. Describe types of consent used in health care settings, including informed consent and implied consent
4. Describe how to avoid litigation as it relates to blood collection.
5. Define standard of care from a legal and a health care provider's perspective.-
6. Identify key elements of the Health Insurance Portability and Accountability Act (HIPAA).
7. List key factors common to health professional liability insurance policies.
8. List common issues in lawsuits against health care providers and prevention tips to avoid lawsuits in phlebotomy.
9. Explain the term liability and what it means for health care providers.

Module #4 Test #4

Materials Covered
Chapters 5, 6, 7
Assessments-Unit test

Chapter 5 Safety and First Aid

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.

Chapter 6 Medical Terminology, Anatomy, and Physiology of Organ Systems

1. Define medical terminology using word elements such as roots, prefixes, and suffixes.
2. Define words commonly used in the clinical laboratory.
3. Describe how laboratory testing is used to assess body functions and disease,
4. Define the differences among the terms *anatomy*, *physiology*, and pathology.
5. Describe the directional terms, anatomic surface regions, and cavities of the body.
6. Describe the role of homeostasis in normal body functioning.
7. Describe the purpose, function, and structural components of the major body systems.
8. Identify examples of pathologic conditions associated with each organ system.
9. Describe the types of specimens that are analyzed in the clinical laboratory.
10. List common diagnostic tests associated with each organ system.

Chapter 7 Cardiovascular and Lymphatic Systems

1. Define the functions of the cardiovascular and lymphatic systems.
2. Identify and describe the structures and functions of the heart.
3. List pathologic conditions and common laboratory tests associated with the cardiovascular and lymphatic systems.
4. Trace the flow of blood through the cardiovascular system.
5. Describe different types of blood vessels, the properties of arterial blood, venous blood, and capillary blood.
6. Identify and describe the cellular and noncellular components of blood.
7. Describe the differences and similarities between whole blood, serum, and plasma.
8. Locate and name the veins most commonly used for phlebotomy procedures.
9. 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*

Homework/Competency	10%
Quizzes/Discussions	10%
Tests	45%
Final Exam	35%
	100%

GRADING SYSTEM:
The text in this section is required; please add the College's or departmental grading system as delineated in the Catalog. Please note the College adheres to a 10 point grading scale A = 100 – 90, B = 89- 80, C = 79 – 70, D = 69 – 60, F = 59 and below. You must have your Dean's approval if changes in the scale are made.

Part IV: Attendance

Horry-Georgetown Technical College maintains a general attendance policy requiring students to be present for a minimum of 80 percent (80%) of their classes in order to receive credit for any course. Due to the varied nature of courses taught at the college, some faculty may require up to 90 percent (90%) attendance. Pursuant to 34 Code of Federal Regulations 228.22 - Return to Title IV Funds, once a student has missed over 20% of the course or has missed two (2) consecutive weeks, the faculty is obligated to withdraw the student and a student may not be permitted to reenroll. **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. If a student is absent on test day, they are responsible for contacting the professor and making that test up before the next classroom lecture. The test will be made up at the testing center. The student is responsible for calling the testing center for an appointment to make up the missed test. The student must also let the professor know the day, date, time, and which testing center the test will be made up at. If they do not take the test before the next classroom lecture, they will receive a 0 grade for that 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.** 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, with a grade of no less than 80%. 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's grade will reflect only what was completed** . 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. **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 skips a semester between AHS141 and AHS 167, 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 167, 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 167.

Sample Attendance Policy for Online/Hybrid Courses:

Students enrolled in distance learning courses (hybrid and online) are required to participate weekly in an Attendance Discussion Board or submit an assignment in order to demonstrate course participation. Students showing no activity in the course for two weeks will be withdrawn due to lack of attendance.

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 or go to the Online Resource Center to access on-demand resources any time.

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.

Disability Services:

HGTC is committed to providing an accessible environment for students with disabilities. Inquiries may be directed to Beth Havens, 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, sex, national or ethnic origin, age, religion, disability, marital or family status, veteran status, political ideas, sexual orientation, gender identity, or pregnancy, childbirth, or related medical conditions, including, but not limited to, lactation in educational programs and/or activities.

Inquiries regarding the non-discrimination policies: Students 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 Vice President for Student Affairs, Dr. Melissa Batten, VP Student Affairs, Title IX Coordinator, Building 1100, Room 107A, Conway Campus, PO Box 261966, Conway, SC 29528-6066, 843-349-5228, Melissa.Batten@hgtc.edu. Employee and applicant inquiries concerning Section 504, Title II, and Title IX and their application to the College may be directed to the Vice President for Human Resources, Jacquelyne Snyder, VP Human Resources, Section 504, Title II, and Title IX

Coordinator, Building 200, Room 212A, Conway Campus, PO Box 261966, Conway, SC 29528-6066, 843-349-5212, Jacquelyne.Snyder@hgtc.edu.

Title IX Requirements

All students (as well as other persons) at Horry-Georgetown Technical College are protected by Title IX—regardless of their sex, sexual orientation, gender identity, part- or full-time status, disability, race, or national origin—in all aspects of educational programs and activities. Any student, or other member of the college community, who believes that he/she is or has been a victim of sexual harassment or sexual violence may file a report with the college's Chief Student Services Officer, campus law enforcement, or with the college's Title IX Coordinator, or designee.

> *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).

Inquiries regarding the non-discrimination policies:	
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 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 Vice President for Human Resources.
Dr. Melissa Batten, VP Student Affairs *Title IX Coordinator* Building 1100, Room 107A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5228 Melissa.Batten@hgtc.edu	**Jacquelyne Snyder, VP Human Resources** *Section 504, Title II, and Title IX Coordinator* Building 200, Room 212A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5212 Jacquelyne.Snyder@hgtc.edu