

**Health Science Career Cluster
Diagnostics Phlebotomy
Course Number: 25.57400**

Course Description:

This course is designed to help students become prepared for the phlebotomy technician certification exam, upon completion of all required components. Topics covered in this course include employability skills, careers, terminology and equipment, safety and compliance, quality assurance, site-specific anatomy, patient preparation for venipuncture, performing of venipuncture, and special processing and transport. During this course, simulated venipuncture may be performed. However, for national certification, live sticks are required. If school systems choose not to allow live sticks during this course, the certifying agencies may allow a provisional certification with the live stick requirement being completed after high school graduation. The pre-requisites for this course are Introduction to Healthcare and Essentials of Healthcare.

Course Standard 1

HS-DP-1

The following standard is included in all CTAE courses adopted for the Career Cluster/Pathways. Teachers should incorporate the elements of this standard into lesson plans during the course. The topics listed for each element of the standard may be addressed in differentiated instruction matching the content of each course. These elements may also be addressed with specific lessons from a variety of resources. This content is not to be treated as a unit or separate body of knowledge but rather integrated into class activities as applications of the concept.

Standard: Demonstrate employability skills required by business and industry.

The following elements should be integrated throughout the content of this course.

1.1 Communicate effectively through writing, speaking, listening, reading, and interpersonal abilities.

Person-to-Person Etiquette	Telephone and Email Etiquette	Cell Phone and Internet Etiquette	Communicating At Work	Listening
Interacting with Your Boss	Telephone Conversations	Using Blogs	Improving Communication Skills	Reasons, Benefits, and Barriers
Interacting with Subordinates	Barriers to Phone conversations	Using Social Media	Effective Oral Communication	Listening Strategies
Interacting with Co-workers	Making and Returning Calls		Effective Written Communication	Ways We Filter What We Hear
Interacting with Suppliers	Making Cold Calls		Effective Nonverbal Skills	Developing a Listening Attitude
	Handling Conference Calls		Effective Word Use	Show You Are Listening
	Handling Unsolicited Calls		Giving and Receiving Feedback	Asking Questions
				Obtaining Feedback
				Getting Others to Listen

Nonverbal Communication	Written Communication	Speaking	Applications and Effective Résumés
Communicating Nonverbally	Writing Documents	Using Language Carefully	Completing a Job Application
Reading Body Language and mixed Messages	Constructive Criticism in Writing	One-on-One Conversations	Writing a Cover Letter

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Matching Verbal and Nonverbal communication		Small Group Communication	Things to Include in a Résumé
Improving Nonverbal Indicators		Large Group Communication	Selling Yourself in a Résumé
Nonverbal Feedback		Making Speeches	Terms to Use in a Résumé
Showing Confidence Nonverbally		Involving the Audience	Describing Your Job Strengths
Showing Assertiveness		Answering Questions	Organizing Your Résumé
		Visual and Media Aids	Writing an Electronic Résumé
		Errors in Presentation	Dressing Up Your Résumé

1.2 Demonstrate creativity by asking challenging questions and applying innovative procedures and methods.

Teamwork and Problem Solving	Meeting Etiquette
Thinking Creatively	Preparation and Participation in Meetings
Taking Risks	Conducting Two-Person or Large Group Meetings
Building Team Communication	Inviting and Introducing Speakers
	Facilitating Discussions and Closing
	Preparing Visual Aids
	Virtual Meetings

1.3 Exhibit critical thinking and problem solving skills to locate, analyze and apply information in career planning and employment situations.

Problem Solving	Customer Service	The Application Process	Interviewing Skills	Finding the Right Job
Transferable Job Skills	Gaining Trust and Interacting with Customers	Providing Information, Accuracy and Double Checking	Preparing for an Interview	Locating Jobs and Networking
Becoming a Problem Solver	Learning and Giving Customers What They Want	Online Application Process	Questions to Ask in an Interview	Job Shopping Online
Identifying a Problem	Keeping Customers Coming Back	Following Up After Submitting an Application	Things to Include in a Career Portfolio	Job Search Websites
Becoming a Critical Thinker	Seeing the Customer's Point	Effective Résumés:	Traits Employers are Seeking	Participation in Job Fairs
Managing	Selling Yourself and the Company	Matching Your Talents to a Job	Considerations Before Taking a Job	Searching the Classified Ads
	Handling Customer Complaints	When a Résumé Should be Used		Using Employment Agencies
	Strategies for Customer Service			Landing an Internship
				Staying Motivated to Search

1.4 Model work readiness traits required for success in the workplace including integrity, honesty, accountability, punctuality, time management, and respect for diversity.

Workplace Ethics	Personal Characteristics	Employer Expectations	Business Etiquette	Communicating at Work
Demonstrating Good Work Ethic	Demonstrating a Good Attitude	Behaviors Employers Expect	Language and Behavior	Handling Anger
Behaving Appropriately	Gaining and Showing Respect	Objectionable Behaviors	Keeping Information Confidential	Dealing with Difficult Coworkers

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Maintaining Honesty	Demonstrating Responsibility	Establishing Credibility	Avoiding Gossip	Dealing with a Difficult Boss
Playing Fair	Showing Dependability	Demonstrating Your Skills	Appropriate Work Email	Dealing with Difficult Customers
Using Ethical Language	Being Courteous	Building Work Relationships	Cell Phone Etiquette	Dealing with Conflict
Showing Responsibility	Gaining Coworkers' Trust		Appropriate Work Texting	
Reducing Harassment	Persevering		Understanding Copyright	
Respecting Diversity	Handling Criticism		Social Networking	
Making Truthfulness a Habit	Showing Professionalism			
Leaving a Job Ethically				

1.5 Apply the appropriate skill sets to be productive in a changing, technological, diverse workplace to be able to work independently and apply team work skills.

Expected Work Traits	Teamwork	Time Management
Demonstrating Responsibility	Teamwork Skills	Managing Time
Dealing with Information Overload	Reasons Companies Use Teams	Putting First Things First
Transferable Job Skills	Decisions Teams Make	Juggling Many Priorities
Managing Change	Team Responsibilities	Overcoming Procrastination
Adopting a New Technology	Problems That Affect Teams	Organizing Workspace and Tasks
	Expressing Yourself on a Team	Staying Organized
	Giving and Receiving Constructive Criticism	Finding More Time
		Managing Projects
		Prioritizing Personal and Work Life

1.6 Present a professional image through appearance, behavior and language.

On-the-Job Etiquette	Person-to-Person Etiquette	Communication Etiquette	Presenting Yourself
Using Professional Manners	Meeting Business Acquaintances	Creating a Good Impression	Looking Professional
Introducing People	Meeting People for the First Time	Keeping Phone Calls Professional	Dressing for Success
Appropriate Dress	Showing Politeness	Proper Use of Work Email	Showing a Professional Attitude
Business Meal Functions		Proper Use of Cell Phone	Using Good Posture
Behavior at Work Parties		Proper Use in Texting	Presenting Yourself to Associates
Behavior at Conventions			Accepting Criticism
International Etiquette			Demonstrating Leadership
Cross-Cultural Etiquette			
Working in a Cubicle			

Support of CTAE Foundation Course Standards and Georgia Standards of Excellence L9-10RST 1-10 and L9-10WHST 1-10:

Georgia Standards of Excellence ELA/Literacy standards have been written specifically for technical subjects and have been adopted as part of the official standards for all CTAE courses.

Course Standard 2

HS-DP-2

Explore options in the clinical lab industry, including phlebotomy and the organizational structure.

- 2.1 Identify and describe current employment options in the clinical lab profession and the required education and training.
- 2.2 Identify members of the clinical lab team; differentiate between roles, department and responsibilities of team members, and place all members in appropriate positions on the organizational chart.

Course Standard 3

HS-DP-3

Utilize appropriate laboratory/medical terminology and venipuncture equipment.

- 3.1 Demonstrate the appropriate use of clinical lab nomenclature to include medical terminology related to clinical lab testing and requisitions.
- 3.2 Differentiate between physician requisition, sample collection, and accession process.
- 3.3 Identify phlebotomy reference sources including tube collection order of draw; translating a brand name to order of draw for venipuncture; special use sample collection and identification number; correct spelling or definition of medical terms; methods of patient identification; and ETS (Evacuated Tube Systems).
- 3.4 Classify and explain the types and purpose of evacuated tubes by color code, anticoagulants and additives, and special characteristics.
- 3.5 Select and assemble appropriate venipuncture equipment for collection areas or mobile work stations, including ETS, syringes, winged-blood collection sets, needles, sharp containers, evacuated collection tubes, transfer devices, tourniquets, personal protective equipment (PPE), antiseptic swabs (according to protocol), gauze pads and bandages, slides, and marking pens.

Course Standard 4

HS-DP-4

Abide by regulations governing workplace safety, infection control, operational standards, patient confidentiality, and facility protocol.

- 4.1 Demonstrate adhering to regulations regarding workplace safety [e.g., Occupational Safety and Health Administration (OSHA) and National Institute for Occupational Safety and Health (NIOSH)].
- 4.2 Demonstrate abiding by regulations regarding operational standards (e.g., Joint Commission on Accreditation of Healthcare Organizations (JCAHO), Clinical and Laboratory Standards Institute (CLSI)).
- 4.3 Demonstrate patient privacy (protected health information) as outlined in HIPAA (Health Insurance Portability and Accountability Act) regulations.
- 4.4 Demonstrate following exposure control plans in the event of occupational exposure.
- 4.5 Demonstrate exhibiting appropriate infection control standards and safety equipment, to include biohazards set forth by OSHA and the Communicable Disease Center (CDC).
- 4.6 Implement infection control procedures to break the chain of infection; transmission via direct and indirect contact, droplets, airborne, and hospital acquired infections.
- 4.7 Demonstrate first aid and Basic Life Support techniques and initiate when necessary.
- 4.8 Observe standards of operation and workplace safety regulations for:
 - needle stick safety and precaution act,
 - blood borne pathogen,
 - safety practices of HIV (Human Immune Deficiency Virus), Hepatitis B & C.

- 4.9 Show the appropriate use of PPE (personal protective equipment) and effective hand sanitization procedures.
- 4.10 Demonstrate reacting to emergency situations following agency procedures and facility protocol.

Course Standard 5

HS-DP-5

Maintain quality control measures within the medical facility to prevent medical errors and provide appropriate patient care.

- 5.1 Identify and describe the national regulatory agencies for quality assurance and healthcare: JC (Joint Commission), CLIA (Clinical Laboratory Improvement Act), CAP (College of American Pathologists), NAACLS (National Accrediting Agency for Clinical Laboratory Sciences), and CLSI (Clinical and Laboratory Standards Institute).
- 5.2 Describe quality assurance program components and quality control related to phlebotomy, including the following:
 - patient record documentation
 - procedural manuals
 - collection manuals
- 5.3 Recognize quality control measurements, including risk management, and demonstrate methods of performance improvement.
- 5.4 Perform outcome measurements, including the number of times patient samples had to be redrawn due to error through the collection of data to improve quality processes.
- 5.5 Demonstrate the usage of information management components, including bar code systems and documentation in the electronic health records.

Course Standard 6

HS-DP-6

Identify site specific anatomy related to venipuncture.

- 6.1 Identify and explain the three major preferred sites for venipuncture in the antecubital fossa and distinguish the “H” and “M” shaped patterns.
- 6.2 Locate other potential veins for venipuncture, when necessary.
- 6.3 Utilize appropriate palpation techniques in vein location.

Course Standard 7

HS-DP-7

Follow steps and guidelines necessary to prepare patients for blood collection procedures.

- 7.1 Apply appropriate safety standards for patient preparation.
- 7.2 Review requisition, confirm test requirements (e.g., fasting and medication) and status, and identify patient special considerations such as:
 - diet restrictions
 - latex sensitivity
 - timed / status
- 7.3 Perform proper patient identification procedures, verification and discrepancy rectification to insure accuracy.
- 7.4 Conduct initial patient observation utilizing appropriate communication techniques, including explanation of procedure to the patient.
- 7.5 Ensure consent is given by patient, either implied or informed.
- 7.6 Assess site selection, based on knowledge of anatomy and physiology, for sample collection that is appropriate for patient age and condition, in order to minimize patient risk.

- 7.7 Apply antiseptic agent utilizing proper aseptic techniques.

Course Standard 8

HS-DP-8

Perform venipuncture and capillary blood collection, utilizing appropriate equipment and techniques.

- 8.1 Demonstrate utilizing knowledge of anatomy and physiology, related to site selection.
- 8.2 Demonstrate applying appropriate employee safety standards for collection techniques and patient safety.
- 8.3 Confirm appropriate ETS (evacuated tube system) and tube additives.
- 8.4 Demonstrate assembling primary blood collection equipment, including quality verification (sterility and expiration date).
- 8.5 Demonstrate proper application, tying, removal, and standards for timing when utilizing a tourniquet.
- 8.6 Demonstrate proper techniques, including order of draw, for venipuncture needle insertion and removal.
- 8.7 Demonstrate performing the steps in a venipuncture procedure utilizing evacuated tube system, syringe, and winged collection set.
- 8.8 Demonstrate ensuring inversion of evacuated tubes after collection, to maintain additive/specimen ratio.
- 8.9 Demonstrate proper techniques, including order of draw, for capillary specimen collection, as required by patient age and condition.
- 8.10 Demonstrate performing capillary (dermal) puncture steps in the correct order.
- 8.11 Recognize common complications from primary collection (e.g., lack of blood flow, hematoma, petechiae, and nerve injury).
- 8.12 Identify and describe problematic patient signs and symptoms throughout collection (e.g., syncope, diaphoresis, nausea, seizure).

Course Standard 9

HS-DP-9

Observe specialized laboratory tests that may involve specific techniques for patient preparation, timing of sample collection, other blood collection techniques, and sample handling. (*Performing these skills may be considered more advanced, and may not be allowed according to Georgia law.*)

- 9.1 Demonstrate by simulation or observe the following:
 - peripheral blood smear preparation
 - blood culture collections, including assisting other healthcare professionals
 - blood donation phlebotomy
 - blood sample collection for inborn errors of metabolism (e.g., PKU, galactosemia)
- 9.2 Calculate volume requirements to avoid causing iatrogenic anemia.
- 9.3 Accommodate the technical and communication challenges of blood collection for the pediatric and geriatric populations.

Course Standard 10

HS-DP-10

Ensure compliance with facility procedures and protocol when documenting and reporting and when handling and transporting specimens.

- 10.1 Confirm proper labeling procedures, including patient identification and time.
- 10.2 Demonstrate performance and assessment of routine and special specimen handling.

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- 10.3 Demonstrate avoiding pre-analytical errors when collecting blood specimens (e.g., (QNS) Quantity Not Sufficient and hemolysis).
- 10.4 Ensure proper quality control for all procedures, including Clinical Laboratory Improvement Amendments (CLIA)-waived.
- 10.5 Demonstrate exhibiting proper patient communication when explaining non-blood, specimen collection procedures (e.g., urinalysis and stool).
- 10.6 Demonstrate utilizing proper safety protocol when handling patient-collected non-blood specimens.
- 10.7 Demonstrate transporting specimens based on handling requirements (e.g., temperature, light, and time).
- 10.8 Demonstrate ensuring the following proper guidelines for non-laboratory specimen transport (e.g., forensic studies and blood alcohol):
 - custody guidelines
 - transportation requirements
 - communication coordination
- 10.9 Demonstrate preparing samples for transportation to a reference (outside) laboratory.
- 10.10 Demonstrate evaluating procedures for effectively communicating critical values according to established protocol, related to point-of-care testing. (Not allowed to be done by Phlebotomists in Georgia).
- 10.11 Demonstrate evaluating the procedure for reporting critical values for point-of-care testing and distributing laboratory results to ordering providers. (Not allowed to be done by Phlebotomists in Georgia).
- 10.12 Demonstrate proficiency in the following use of technology for processing specimen data.
 - input and retrieval
 - specimen flow through the laboratory utilizing the information management system