

**Bossier Parish Community
Master Syllabus**

Course and Prefix Number: ALHT 102

Credit Hours: 3

Course Title: Introduction to Phlebotomy

Course Co-requisites: ALHT 102L

Textbooks: Garza, D. and Becan-McBride, K.; Phlebotomy Handbook, 10th edition

Course Description:

Instruction in proper collection, transportation, and handling of blood, including blood collection equipment, venipuncture, and capillary collection. Instruction also includes the collection and transportation of other body fluids. Withdrawal from lecture mandates withdrawal from the lab course.

Learning Outcomes:

At the end of this course, the student will

- A. integrate professionalism, written and verbal communication, knowledge of historical and legal issues, and appropriate safety codes as applied to the role of a phlebotomist in different health care systems; and
- B. demonstrate the knowledge necessary for proper pre-analytical laboratory testing techniques

To achieve the learning outcomes, the student will

1. describe health care professionals who work in the lab and those who generally perform phlebotomy. (A)
2. define phlebotomy and the phlebotomist. (A)
3. describe the importance of phlebotomy to the overall care of the patient. (A)
4. describe competencies for phlebotomists and organizations that certify programs and provide certification exams. (A)
5. define ethics, confidentiality, and professionalism. (A)
6. describe and give examples of the three levels of care. (A)
7. describe health care settings, including hospitals and hospital departments where phlebotomy is performed. (A)
8. discuss managed care. (A)
9. list ambulatory care settings where phlebotomists are employed. (A)
10. discuss the role of the lab in blood collection, accreditation, and testing. (B)
11. discuss common tests and the laboratory section to which they are delivered. (C)
12. lists skills for active listening and effective communication during blood collection. (A)
13. list examples of positive and negative body language. (A)

14. discuss the major points of the Patient's Bill of Rights. (A)
15. list causes of stress and coping skills used to deal with stress in the workplace. (A)
16. describe the anatomic surface regions and cavities of the body. (B)
17. list the eight structural levels of the human body and Maslow's Hierarchy of needs. (B)
18. describe the role of homeostasis in normal body functioning. (B)
19. describe the purpose, function, and structural components of the 11 body systems. (B)
20. list examples of disorders associated with each organ system. (B)
21. discuss the structures and functions of the heart. (B)
22. discuss the flow of blood through the heart. (B)
23. discuss the structure and function of blood vessels. (B)
24. locate and name the veins and arteries most commonly used for phlebotomy. (B)
25. describe the phases of homeostasis. (B)
26. define nosocomial infection. (A)
27. discuss basic programs for infection control. (A)
28. demonstrate proper handwashing techniques, gowning, gloving, masking, double bagging, and entering and exiting various isolation areas. (A)
29. discuss the potential route of infection and method for preventing transmission of microorganisms through these routes. (A)
30. describe the various isolation procedures and reasons for their use. (A)
31. discuss safety awareness. (A)
32. discuss the measures taken for fire, electrical, radiation, mechanical, and chemical safety in a health care facility. (A)
33. describe the essential elements of a disaster emergency plan for a health care facility. (A)
34. describe the basic components of a medical record. (A)
35. discuss six ways to enhance intra-laboratory communication. (A)
36. describe nine methods of extra-laboratory communication. (A)
37. describe essential elements of requisition and report forms. (A)
38. name methods commonly used to process and transport specimens. (B)
39. name areas that usually receive laboratory reports. (A)
40. list the various types of anticoagulants used in blood collection, their mechanisms for preventing blood from clotting, and the tube color codes for these anticoagulants and proper order of draw. (B)
41. describe the latest phlebotomy safety supplies and equipment and evaluate their effectiveness in blood collection. (B)
42. list the various supplies that should be carried on a specimen collection tray when a skin puncture specimen must be collected and explain how and when they are used. (B)
43. list the types of equipment needed to collect blood by venipuncture. (B)
44. describe the special precautions that should be taken and the techniques that should be used when various types of specimens must be collected, transported, and processed in the clinical laboratory and reference lab. (B)
45. describe the introduction, patient identification, and medical interview process for inpatients, emergency room patients, and ambulatory patients. (A)

46. list essential information for test requisitions. (A)
47. list supplies that would be used in a venipuncture procedure. (B)
48. list the most common sites for venipuncture, describe situations when these sites might not be acceptable sites for venipuncture, and identify alternative sites of the venipuncture procedure. (B)
49. describe the venipuncture process and the time limits for applying a tourniquet to a patient's arm. (B)
50. describe the decontamination process and the agents used to decontaminate skin for routine blood tests and blood cultures. (B)
51. describe reasons for performing a skin puncture procedure. (B)
52. discuss the proper sites, equipment, and process for performing a skin puncture procedure. (B)
53. explain why controlling the depth of the puncture is necessary. (B)
54. describe the process of making a blood smear and the test for which it is used. (B)
55. explain why blood from a skin puncture procedure is different from blood taken by venipuncture. (B)
56. describe physiologic and other complications related to phlebotomy procedures. (B)
57. explain how to prevent complications in blood collection and how to handle the complications that do occur. (B)
58. list the effects of physical disposition on blood collection. (B)
59. discuss the types of substances and other things that can interfere in the clinical analysis of blood constituents and the methods used to prevent these occurrences. (B)
60. describe the fears or concerns that children of different developmental stages might have toward the blood collection process. (B)
61. list suggestions that might be appropriate for the parent's behavior and the phlebotomist's behavior during a venipuncture or skin puncture procedure. (B)
62. identify puncture sites for heel sticks on infants; demonstrate the procedure and state the complications. (B)
63. describe venipuncture sites for infants and young children. (B)
64. discuss the types of equipment and supplies that may be used during microcollection and venipuncture of infants and children. (B)
65. describe the procedure and indications for screening neonates for PKU and hypothyroidism. (B)
66. explain the procedure, special precautions, and types of equipment needed to collect capillary and arterial blood gases. (B)
67. describe the procedure and equipment that is used to perform bleeding-time tests. (B)
68. discuss the requirements for the glucose, lactose, epinephrine, glucagon, and D-xylose tolerance tests and other glucose tests. (B)
69. differentiate cannulas from fistulas. (B)
70. list the special requirements for collecting blood through central venous catheters. (B)
71. describe therapeutic phlebotomy, autologous transfusion, and blood donor collection. (B)

72. describe the special precautions needed to collect blood in therapeutic drug monitoring procedures and the chain of custody drug test. (B)
73. discuss the procedure and equipment needed for trace metal analysis and skin tests. (B)
74. list five other terms that are synonymous with point-of-care testing and state the future trend of POC testing. (B)
75. discuss five physical and/or emotional changes that are associated with the aging process. (B)
76. discuss how a health care worker should react to physical and emotional changes associated with the elderly. (B)
77. identify and describe four analytes whose levels can be determined through point of care testing. (B)
78. describe the most widely used application of point-of-care testing. (B)
79. record the control values on the appropriate quality control chart and explain the quality control process given the abnormal and normal control values for glucose from a daily run. (B)
80. identify the types of body fluid specimens, other than blood, analyzed in the clinical laboratory, and the correct procedures for collecting and/ or transporting these specimens to the laboratory and sending them to a reference lab. (B)
81. discuss the various types of specimens collected for microbiological testing, such as throat and nasopharyngeal cultures, and the protocol that health care workers must use when transporting these specimens. (B)
82. list the types of patient specimens that are needed for skin tests and gastric and sweat chloride analysis. (B)
83. discuss types of urine specimen collections and differentiate the uses of the urine specimens obtained from these collections. (B)
84. state the physical, chemical, and microscopic changes in urine in normal or abnormal conditions. (B)
85. define toxicology and forensic toxicology. (B)
86. state five examples of specimens that can be used for forensic analysis. (B)
87. describe the role of the health care worker or "collector" in federal drug testing programs. (B)
88. list security measures and minimum site requirements for urine collection for federal drug testing programs. (B)
89. describe the function of a chain-of-custody and the Custody and Control form. (B)
90. list the basic steps in specimen collection for urine drug tests and blood alcohol levels. (B)
91. describe quality, assurance, quality control, and total quality management and its importance. (B)
92. describe the "5D's" in terms of negative patient outcomes. (B)
93. identify steps in monitoring and evaluating a specimen collection process. (B)
94. distinguish between quality control and quality improvement. (B)
95. recall examples of improved patient outcomes for phlebotomy services. (B)
96. define "g value" and tell how it is used. (B)
97. define major legal terms and explain how they relate to the health care setting. (A)
98. define risk and describe the major elements in a risk management program. (A)

99. describe the basic functions of the medical record. (A)
100. define informed consent. (A)
101. describe how to avoid litigation as it relates to specimen collection in the health care environment. (A)
102. describe CLIA '88 in perspective to blood collection and transportation responsibilities. (A)
108. research and write a paper on a phlebotomy-related topic. (A, B,)
109. complete two hours of clinical observation of a phlebotomist. (A, B)
110. critically analyze phlebotomy case studies. (A, B)

Course Requirements

To earn a grade of "C" or higher, the student must earn 70% of the total points for the course and meet all of the following course requirements.

- minimum 50% accuracy on at least 5 case studies
- a minimum grade of 70% on all tests, including the comprehensive final exam

Course Grading Scale:

- A- 90% or more of total points on tests including comprehensive final exam and minimum of 50% accuracy on at least 5 case studies
- B- 80% or more of total points on tests including comprehensive final exam and minimum of 50% accuracy on at least 5 case studies
- C- 70% or more of total points on tests including comprehensive final exam and minimum of 50% accuracy on at least 5 case studies
- D- 60% or more of total points on tests including comprehensive final exam and minimum of 50% accuracy on at least 5 case studies
- F- less than 60% of total points on tests including comprehensive final exam or less than 50% on at least 5 case studies

Attendance Policy: The college attendance policy is available at

<http://catalog.bpcc.edu/content.php?catoid=5&navoid=369#class-attendance>

Nondiscrimination Statement

Bossier Parish Community College does not discriminate based on race, color, national origin, gender, age, religion, qualified disability, marital status, veteran's status, or sexual orientation in admission to its programs, services, or activities, in access to them, in treatment of individuals, or in any aspect of its operations. Bossier Parish Community College does not discriminate in its hiring or employment practices.

Title VI, Section 504, and ADA Coordinator

Angie Cao, Manager

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Phone: 318-678-6005

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Equity/Compliance Coordinator

Teri Bashara, Director of Human Resources

Human Resources Office, A-105

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Phone: 318-678-6056

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Reviewed by Melissa Shepherd May 2021