



El Camino College  
COURSE OUTLINE OF RECORD – Official

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| <b>Subject:</b>                     | ALH  |
| <b>Course Number:</b>               | 504  |
| <b>Descriptive Title:</b>           | Introduction to Phlebotomy   |
| <b>Division:</b>                    | Health Sciences and Athletics  |
| <b>Department:</b>                  | Allied Health  |
| <b>Course Disciplines:</b>          | Health, Health Care Ancillaries  |
| <b>Catalog Description:</b>         | This noncredit course provides students with theoretical and laboratory preparation for entry-level certification as a phlebotomy technician. It includes an overview of federal and state regulations governing clinical laboratories. The course also covers additional responsibilities of phlebotomy technicians as members of the health care team. Students learn about vascular anatomy and physiology and learn how to perform venipuncture and dermal puncture techniques. Students will also have to demonstrate skill competency. |
| <b>Prerequisite:</b>                |  |
| <b>Co-requisite:</b>                |  |
| <b>Recommended Preparation:</b>     |  |
| <b>Enrollment Limitation:</b>       |  |
| <b>Hours Lecture (per week):</b>    | 1.1  |
| <b>Hours Laboratory (per week):</b> | 1.1  |
| <b>Outside Study Hours:</b>         | 2.2  |
| <b>Total Course Hours:</b>          | 40   |
| <b>Course Units:</b>                | 0  |
| <b>Grading Method:</b>              | Pass/No Pass/SP  |
| <b>Credit Status:</b>               | Noncredit  |
| <b>Transfer CSU:</b>                | No   |
| <b>Effective Date:</b>              |  |
| <b>Transfer UC:</b>                 | No   |
| <b>Effective Date:</b>              |  |
| <b>General Education ECC:</b>       |  |
| <b>Term:</b>                        |  |
| <b>Other:</b>                       |  |
| <b>CSU GE:</b>                      |  |
| <b>Term:</b>                        |  |
| <b>Other:</b>                       |  |
| <b>IGETC:</b>                       |  |
| <b>Term:</b>                        |  |

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| <b>Other:</b>                     |   |
| <b>Student Learning Outcomes:</b> | <p>Upon completion of the course, students will be able to:</p> <ol style="list-style-type: none"> <li>1. explain the proper procedures for obtaining and submitting blood samples.</li> <li>2. perform venipuncture and capillary puncture techniques to obtain blood specimens from a patient by using the accepted phlebotomy methods.</li> <li>3. safely dispose of sharps, needles, and wastes processing specimens.</li> </ol>  |
| <b>Course Objectives:</b>         | <ol style="list-style-type: none"> <li>1. Understand the role and responsibilities of phlebotomy technicians in the provision of health care services.</li> <li>2. Explain and apply basic and advanced principles and practices of environmental safety applicable in clinical laboratory and specimen collection settings.</li> <li>3. Recognize basic anatomical landmarks and physiological functions of body systems, particularly the circulatory system, and use appropriate medical terminology when performing as a phlebotomist.</li> <li>4. Explain principles and practices used in collecting laboratory specimens for analysis.</li> <li>5. Prepare clients for laboratory studies ordered.</li> <li>6. Selecting appropriate sites and equipment.</li> <li>7. Obtaining venipunctures and dermapuncture.</li> <li>8. Describe possible complications of venipunctures and identify appropriate interventions to prevent or manage selected complications.</li> <li>9. Identify possible pre-analytical sources of error in specimen collection, transport, and processing.</li> <li>10. Identify high risk and other special patient populations and describe mechanisms to prevent and treat possible complications, including modifications of site selection and techniques.</li> <li>11. Compare and contrast the functions of various sections of a clinical laboratory.</li> <li>12. Identify methods used to assure quality control in clinical laboratories.</li> <li>13. Discuss additional duties commonly assigned to phlebotomy technicians.</li> <li>14. Recognize interpersonal skills, legal and ethical standards affecting the clinical practice of phlebotomy technicians and be able to demonstrate competency in applying these skills and standards in the clinical setting.</li> </ol> |
| <b>Major Topics:</b>              | <p><b>I. Health care delivery system (2 hours, lecture)</b></p> <ol style="list-style-type: none"> <li>A. Organizational structure</li> <li>B. Role of each member of the health team including phlebotomist</li> <li>C. Relationship of the phlebotomist to the health team</li> <li>D. Requirements for certification as a phlebotomist</li> <li>E. Quality control</li> <li>F. Diversity in the workplace</li> </ol> <p><b>II. Basic introduction to circulatory systems (2 hours, lecture)</b></p> <ol style="list-style-type: none"> <li>A. Anatomy and function</li> <li>B. Medical terminology</li> <li>C. Laboratory procedures and terminology</li> </ol> <p><b>III. Infection control (2 hours, lecture)</b></p> <ol style="list-style-type: none"> <li>A. Modes of transmission for infectious organisms</li> <li>B. Standard precautions</li> <li>C. Isolation procedures</li> <li>D. Nosocomial infections</li> <li>E. Safety measure for drawing and transporting specimens</li> </ol> <p><b>IV. Specimen collections (3 hours, lecture)</b></p> <ol style="list-style-type: none"> <li>A. Patient/specimen identification</li> <li>B. Role and responsibilities of phlebotomist in obtaining and transporting specimens</li> <li>C. Collection tubes</li> </ol>  |

- D. Collection equipment
- E. Types of blood specimens
- F. Requirements and techniques required for each type of blood specimen
- G. Blood constituents
- H. Precautions for drawing blood
- V. Performing venipuncture and capillary puncture (3 hours, lecture)**
- A. Venipuncture and capillary puncture sites
- B. Sterile and aseptic techniques
- C. Site preparation
- D. Insertion, aspiration, and needle withdrawal
- E. Age specific techniques
  - 1. Infant
  - 2. Child
  - 3. Adult
  - 4. Elderly
- F. Complications of venipuncture and capillary puncture, causes and methods of prevention
- VI. Requisitioning and transporting of blood specimens (3 hours, lecture)**
- A. Legal and ethical issues of requisition and transporting
- B. Requirements for a requisition
- C. Transportation of specimens
- D. Conditions to be met if blood specimens are to be used as legal evidence
- E. Quality assurance policies and procedures for phlebotomy
- VII. Professionalism and communication skills (3 hours, lecture)**
- A. Personal, patient, and health team
- B. Patient teaching in relation to blood draw procedures
- C. Communication with family and visitors during specimen collection
- D. Patient Bill of Rights
- E. Professional behavior and appearance
- F. Medical/legal terminology and its relationship to phlebotomy
- G. Stress in the workplace and coping skills
- H. Health Insurance Portability and Accountability Act (HIPAA)
- I. Ethics
- VIII. Advanced content (2 hours, lecture)**
- A. Advanced infectious disease control and biohazards
- B. Advanced anatomical site selection and patient preparation
- C. Anticoagulation therapy
- D. Risk factors and appropriate responses for phlebotomy
- IX. Specimen collection procedures (5 hours, lab)**
- A. Patient identification and labeling
- B. Specimen collection devices and anticoagulant tubes
- C. Venipuncture techniques on adults and pediatric patients
- D. Capillary collection techniques and heel sticks
- X. Specimen processing and transport (5 hours, lab)**
- A. Labeling and managing specimens
- B. Collecting special samples
- D. Specimen transport methods
- XI. Professionalism - HIPAA/ patient confidentiality observance (5 hours, lab)**
- A. Ethical standards
- B. Legal standards
- C. OSHA and HIPPA regulations
- XII. Standard precautions and safety procedures (5 hours, lab)**
- A. Personal protective equipment and isolation precautions

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|  | B. Bloodborne pathogens<br>C. Safe handling and disposal of sharps  |
| <b>Total Lecture Hours:</b>  | 20  |
| <b>Total Laboratory Hours:</b>   | 20  |
| <b>Total Hours:</b>  | 40  |
| <b>Primary Method of Evaluation:</b>   | 3) Skills demonstration   |
| <b>Typical Assignment Using Primary Method of Evaluation:</b>  | Pretend you have just drawn blood. Fill out appropriate requisition forms and specimen labeling forms.  |
| <b>Critical Thinking Assignment 1:</b>   | In a two- to three-minute presentation explain the organization of the healthcare team, the role of each member of the team, and the requirements for certification for a phlebotomist.                                     |
| <b>Critical Thinking Assignment 2:</b>   | In a two- to three-minute presentation describe common complications of venipuncture and capillary puncture, their causes and methods to prevent them.  |
| <b>Other Evaluation Methods:</b>   | Class Performance, Clinical Evaluation, Homework Problems, Laboratory Reports, Matching Items, Multiple Choice, Objective Exam  |
| <b>If Other:</b>   |   |
| <b>Instructional Methods:</b>  | Demonstration, Discussion, Group Activities, Lab, Lecture, Multimedia presentations, Role play/simulation   |
| <b>If other:</b>   |   |
| <b>Work Outside of Class:</b>  | Answer questions, Problem solving activity, Skill practice, Study   |
| <b>If Other:</b>   |   |
| <b>Up-To-Date Representative Texts:</b>  | McCall, Ruth, <i>Phlebotomy Essentials</i> , 7th Ed. Wolters-Kluwer. 2019 (Discipline Standard)<br>Hoeltke, L.B. <i>The Complete Textbook of Phlebotomy</i> . 5th ed. Thompson Delmar Learning, 2017. (Discipline Standard) |
| <b>Alternative Texts:</b>  |   |
| <b>Required Supplementary Readings:</b>  |   |
| <b>Other Required Materials:</b>   |   |
| <b>Requisite</b>   |   |
| <b>Category</b>  |   |
| <b>Requisite course:</b>   |   |
| <b>Requisite and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s).</b> |   |
| <b>Requisite Skill:</b>  |   |
| <b>Requisite Skill and Matching skill(s): Bold the requisite skill(s). if applicable</b>                                       |   |

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| <b>Requisite course:</b>   |               |
| <b>Requisite and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s).</b>                     |               |
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| <b>Enrollment Limitations and Category:</b>  |               |
| <b>Enrollment Limitations Impact:</b>  |               |
| <b>Course Created by:</b>  | Matthew Kline |
| <b>Date:</b>   | 02/20/2024    |
| <b>Original Board Approval Date:</b>   | 03/24/2025    |
| <b>Effective Term:</b>   | FALL 2025     |