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# PHLEBOTOMY

## STUDENT HANDBOOK

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# CERTIFIED PHLEBOTOMY TECHNICIAN I

## COURSE OBJECTIVE

This program is designed to fulfill the training requirements to become a Certified Phlebotomy Technician I (CPTI) for the State of California. Upon meeting the admission requirements, satisfactorily completing the didactic and externship portions of the program, and receiving a passing grade on an approved national certifying exam plus certification from such agency, the student will be able to apply for a CPTI license from the Laboratory Field Services, California Department of Health Services. The class is taught through lectures, class exercises (basic and advanced), and clinical experiences at local externship sites (practical). Students will be trained to perform a variety of blood collection methods using the proper techniques. These methods include the evacuated tube system, syringe collection, winged infusion collection, and capillary puncture on adults, children, and infants.

## PROGRAM PREREQUISITIES

Applicants must possess a High School Transcript or have a General Education Diploma (GED) Transcript or show documentation of an equivalent education as described by the State of California. Any of these documents must be available at the time of enrollment. Applicants must be fluent in English since lectures and testing is conducted in English. An evaluation of English skills will be conducted by the Admissions Representative during the admissions process.

## COURSE GOALS

Upon completion of this program the student will successfully:

1. Demonstrate knowledge of the health care delivery system and medical terminology.
2. Demonstrate knowledge of infection control and safety.
3. Demonstrate basic understanding of the anatomy and physiology of body systems.
4. Associate the major areas / departments of the clinical laboratory with the laboratory tests ordered to evaluate a patient's pathologic condition / illness.
5. Demonstrate understanding of the importance of specimen collection in the overall patient care system.
6. Demonstrate knowledge of collection equipment, various types of additives used, special precautions necessary substances and pre-analytical variables that can adversely affect the blood sample and/or interfere in clinical analysis of blood constituents.
7. Demonstrate proper techniques to perform venipuncture and capillary puncture.
8. Demonstrate knowledge of pre-analytical errors that can significantly alter results.
9. Demonstrate understanding of requisitioning, specimen transport and specimen processing.
10. Demonstrate knowledge of risk factors associated with the phlebotomy procedures on a variety of patients and the proper steps to avoid or correct these factors.
11. Demonstrate understanding of quality assurance in phlebotomy.
12. Demonstrate understanding of the basic concepts of communications, personal and patient interaction, stress management, professional behavior and legal implications of the work environment.
13. Demonstrate understanding of all legal issue associated with the collection of the blood from patients.
14. Demonstration knowledge of the arterial puncture procedure.

## COURSE DESCRIPTION

Course Number	Course Description	Clock hours
CPT I (b)	Basic Phlebotomy	24
	Basic phlebotomy terminology, the health care setting Safety and basic infection control Anatomy with emphasis on the circulatory system Blood collection equipment Proper identification of patient Proper site selection, preparation, and procedure; capillary puncture Proper site selection, preparation, and procedure; ETS, Winged Infusion Set, and the syringe Post Puncture care, appropriate disposal of sharps	
CPT I (a)	Advance Phlebotomy	24
	Advanced infectious disease control and biohazards Anticoagulation theory Advanced site selection, patient preparation, and procedures for different patients Knowledge of pre-analytical sources of error Recognition of problems with test requests, specimen transport, and processing and the corrective actions to take Risk factors and appropriate responses to complications Application of basic concepts of communication, interpersonal relations, stress management, professional behavior, ethics Quality Assurance, Legal issues Arterial Blood Gases collection procedure	
CPT I (e)	Externship	40

Clinical application of skills  
50 Venipunctures  
10 Capillary punctures  
Observation of two Arterial Punctures

## GRADING POLICY

### Knowledge Competencies, Classroom

1. A **minimum** of four multiple choice examinations will be given on lecture material to comprehensively assess student's knowledge of concepts, principles, techniques, and procedures.
2. Each exam will cover previous lectures.
3. A comprehensive final exam may be given on the last day of class.
4. The grading of these exams will be based on the numeric grade 4.0 scales.
5. **A cumulative grade of 2.3 (75%) or higher must be achieved by the student in order to move forward and take the national exam.**
6. Teachers may elect to include additional exams.

Percentage of Correct Answers	Numeric Grade
90-100%	3.4 -4.0
80-89%	2.7-3.3
70-79%	2.0-2.6
60-69%	1.3-1.9
0-59%	1.2 or below

## Skill Competencies, Didactic

1. Evaluations will be given on the student's venipuncture and capillary procedures.
2. The student will proceed with each procedure in front of the instructor, who will be evaluating each step as S (satisfactory) or U (unsatisfactory).
3. The student must get all satisfactory evaluations in order to receive a Certificate of Completion.
4. If the student receives an "unsatisfactory" mark on any step, they will receive counseling by the instructor, given time to study, and will be given another chance to pass the exercise with a satisfactory grade.
5. The student can make as many attempts as necessary.

## Skill Competencies, Practical

During the externship, students will perform supervised phlebotomy procedures on male and female patients, of various ages ranging from children to seniors, and of various states of health ranging from healthy out-patients to ambulatory and restricted in-patients. Students will perform, or attempt to perform venipuncture of a variety of difficulties (based on the supervisor's judgment).

All supervised phlebotomy procedures will be graded by the supervisor as satisfactory (S) or unsatisfactory (U). The student is required to complete fifty satisfactory venipunctures, ten satisfactory capillary punctures, and observe two arterial puncture in order to complete the externship.

## Documentation of Knowledge and Competencies

A "Certificate of Completion" will be issued when the student:

1. Completes all forty hours of lecture (or twenty hours of advanced lecture for advanced students), passing the course with a grade of 2.3 (75%) or higher.
2. Completes the skills exercises with all satisfactory marks.
3. Completes a **minimum** of forty hours of externship, with a total of fifty venipunctures, ten capillary punctures, and two arterial puncture observation.

## REQUIREMENTS AND REGULATIONS

### Attendance Policy (Didactic)

1. Students must attend 40 of the 48 hours of the scheduled didactic classes (83.5%). If the student's total attendance is not 40 hours or more (including late days) they must attend **those days that they missed**, during the **next scheduled class**. If the student does not make up the missed classes and complete their externship within 24 weeks of their official start date, they will be dismissed.

### Percentage of Correct Answers Numeric Grade

90 - 100% 3.4 - 4.0  
80 - 89% 2.7 - 3.3  
70 - 79% 2.0 - 2.6  
60 - 69% 1.3 - 1.9  
0 - 59% 1.2 or below

2. If a student is in a situation where they know they will miss more than 8 hours, they should apply for a leave of absence prior to the first missed class. If the student encounters circumstances beyond their control causing them to miss more than two days of class, the student must notify the school their intent on applying for a leave of absence within 48 hours of the first missed class.
3. The school assumes that any student absent for more than four days without notification has withdrawn from the program and is no longer considered a student at the school. If the student is more than fifteen minutes late or if the student must leave more than fifteen minutes before the end of the session, they will be marked tardy. Arriving late or leaving early will count as a  $\frac{1}{4}$  didactic absence for the first hour or a  $\frac{1}{2}$  didactic absence for the second hour. Four tardy entries will constitute one absence. Planned or unavoidable tardiness should be discussed with the teacher. Discussions with the teacher will not excuse any missed hours however and all attendance rules will apply.

### **Attendance Policy (Externship)**

1. Students must attend a minimum of 40 hours in the externship. The student can expect to stay more, or be assigned more time at another site, if they have not completed all 50 venipuncture, 10 capillary punctures, and observed two arterial puncture.
2. Missing a day IS NOT AN OPTION. Arriving late or leaving early IS NOT AN OPTION. Students who are absent or tardy without prior notification to BOTH the externship site and the school will be immediately removed from that externship site so another student may take their place. The student will only be placed in another externship site AFTER all other classmates have been placed. The student will be placed on probation extending their completion date for undetermined time. If the student does not complete their externship site assignment within sixteen weeks of their official start date, they will be dismissed.

### **Dress Code**

1. Students are required to attend class and assigned clinical sites, clean and neatly dressed in scrubs to present a professional appearance. Students not conforming to the dress code will be sent home and can return only when they comply with the dress code. Any violations will result in the student being placed on probation. Repeat violations will result in dismissal.
2. Appropriate footwear will be required in the laboratory and externships. Closed-toe shoes (no sandals or canvas shoes) that are soft-soled, such as white leather-type athletic shoes are strongly recommended.
3. Student's hair must be clean, neat and of a normal hair color. The hair must be drawn back if longer than shoulder length or hanging in the face. All facial hair must be neat and trimmed and professional looking.
4. Students must bathe regularly to avoid offensive odor. In addition, students must refrain from excessive use of cologne / aftershave lotion, or makeup. Keep fingernails clean and at a reasonable length. Reasonable length is defined as  $\frac{1}{8}$ " above the fingertips. Artificial nails are NOT permitted due to infection control issues. The CDC recommended in its hand hygiene guidelines published in Oct. 2002, "health care personnel should avoid wearing artificial nails and keep natural nails no longer than one quarter of an inch long if caring for patients at high-risk of acquiring infections."
5. Jewelry should be limited to wedding rings and a wristwatch. A conservative necklace that is kept close to the skin (not dangling) and conservative earlobe earrings (earrings are to be stud earrings only and not more than one pair).
6. Dress tactfully. Avoid wearing clothes which are overly revealing, which may represent a safety hazard or which may be offensive to faculty, students, patients or medical personnel. Scrubs are required on campus and are the preferred attire in clinical externships.
7. Other clothing articles, hats, etc. that may present a safety issue or be disruptive to the learning process will not be allowed. Contact the course instructor if uncertain about the suitability of any item taken into the lab setting.

## Requirements for Clinical Externships

**Clinical externships are scheduled during regular weekday working hours (Usually 8:00 AM to 5:00PM). Students (particularly evening and weekend students) must make arrangements to be able to attend their clinical training during the weekday and during normal business hours. Any restrictions on the student's availability will result in delays in placement.** Students who cannot meet the above clinical externship hours will be dismissed from the program. When a student has been placed in an externship, their attendance is mandatory. They will be required to stay at the externship for at least one week. Students will be required to stay more than one week if they do not complete all venipuncture and capillary sticks within one week. Students are required to perform 50 venipunctures and ten capillary punctures, no matter how long it takes. No Exceptions! While at the externship, students will be immediately removed from the site or put on probation for any of the following reasons.

- Absences, coming late, or leaving early without prior notification
- Walking out on an externship site without permission
- Any complaints from the externship site supervisor
- Any act that endangers patients safety, privacy, or other rights
- Canceling their assigned externship within 24 of the time they are required to begin.

A student on probation will be put at the end of the externship waiting list. They will be placed when all other students from their class have been placed.

If an occurrence of the above situations takes place a second time or while the student is on probation for any other reason, the students will be immediately dismissed from the school.

Students may arrange their own externship assignments. These sites must complete the agreement forms, and comply with the agreements therein before the student can begin to work there. While on externship, students are required to follow all policies that the externship site has established for its employees. Although the externship portion of each program is an integral part of the class, a different set of satisfactory progress requirements may be necessary. This is due to the varying work environments and regulations that an externship site may require of its employees. When a student is disciplined at an externship site, or when a student is dismissed from an externship site, the student will immediately be placed on probation delaying the completion of the program for an indeterminate time. When a student is either disciplined or dismissed from an externship site for the second time, the student will be dismissed.

## Additional Externship Requirements

1. Phlebotomy students will carry liability insurance. Liability insurance does not cover student injuries. Liability insurance covers the patients the students are taking care of. This will be automatically purchased by the school as part of the contract that we have with our externship sites.
2. Phlebotomy students *may be required* to show proof of immunization to diphtheria, rubella, tetanus, rubeola, mumps, and Hepatitis B prior to attending the externship site. This is not part of our contract, but it will be a necessary part of working with many hospitals, convalescent homes, or other institutions.
3. Documentation of a TB test performed within the last twelve months *may be required*. This is not part of our contract, but it will be a necessary part of working with many hospitals, convalescent homes, or other institutions.
4. A current BLS (Basic Life Support) for Medical Professionals from the AHA (American Heart Association) *may be required*. This is not part of our contract, but it will be a necessary part of working with many hospitals, convalescent homes, or other institutions.
5. Some externship sites *may require* background checks. This is not part of our contract, but it may be a necessary part of working with many hospitals, convalescent homes, or other institutions.

6. Students are required to act in a courteous, professional manner at all times during the clinical externship. Any display of unprofessional, or unethical conduct by the student may result in immediate dismissal from the program.

## **PROBATION**

When a student has been placed on probation, the student is notified and is required to meet with the school administrator. The goal of this meeting is to determine the underlying reason for the action that led to the probation and decide if these actions can be corrected or eliminated to prevent a repeat of the probation. It will include the date of action, the type of probation, the actions required of the student for continuing, the deadline for which all actions must be completed, and the consequences of not completing said actions.

Continued offenses will result in the student's dismissal. If the student feels that the probation was given unfairly or is in error, the student should submit a petition.

The followings are considered to be violations of college policy on student conduct that will result in the offending student's probation:

- Any violation of dress codes, attendance codes, and safety codes
- The use of indecent or profane language
- Disruptive behavior during a lecture
- Disrespectful behavior to another student, administrator or faculty member
- Handling any equipment without the supervision or permission of the instructor. Students are expected to handle all equipment with care. Damage resulting from negligence on the part of a student can result in the student being billed for the cost of broken equipment.

## **DISMISSAL**

The following student actions will result in the immediate dismissal of a student from the phlebotomy program:

- Failure to make-up absences
- Failure to complete the entire course within 24 weeks of the official start date
- Being absent for more than four consecutive days without notifying the school
- Canceling or walking out on an externship site, or being disciplined or dismissed from an externship site a second time
- Acting in an unethical or unsafe manner at any time during the didactic or the externship

The following are considered to be serious violations of college policy on student conduct and will result in the offending student's dismissal:

- Cheating in any form on academic work
- The possession or use of drugs, alcohol, or weapon on college property
- Destruction or theft of any college property
- Failure to follow or willful disregard of safety regulations

## SAFETY AND INFECTION CONTROL

1. Eating, drinking, chewing gum, applying makeup, or smoking will not be permitted in the class or externship site. Avoid putting objects (such as pens, pencils, eyeglasses, or any object) in your mouth.
2. Wash your hands, AS INSTRUCTED, before leaving the class or externship site for any reason. Proper hand washing is essential in preventing the acquisition and spread of potentially harmful organisms.
3. Disinfect work area thoroughly as instructed by the instructor or externship site trainer.
4. Cover spills with paper towels, soak thoroughly with disinfectant and wait 15 minutes before cleaning it up.
5. All accidents are to be reported immediately to the instructor or externship site supervisor.
6. Use barrier protection (gloves, mask, gowns, lab coat, and face shield) as necessary to prevent skin and mucous membrane contamination with blood or other body fluids.
  - a. Gloves must be worn whenever you are handling body fluids other than sweat.
  - b. Change gloves after each patient contact or when visibly contaminated with blood.
  - c. A buttoned lab coat must be worn whenever you are handling fluids other than sweat.
  - d. Wear a mask, eye glasses, goggles, or face shield during procedures that are likely to result in the splashing or creating aerosols of blood or other body fluids to prevent exposure of the mucous membranes of the mouth, nose or eyes.
  - e. In addition to the lab coat, you wear a fluid-resistant gown, apron, or other covering when there is a potential for splashing or creating aerosols of blood or body fluids onto the body.
7. Wash hands or other skin surfaces thoroughly and immediately if contaminated with blood or other body fluids.
8. Wash hands immediately after gloves have been removed even when no external contamination appears to have occurred. Organisms on the hands multiply rapidly in the warm moist environment within the glove.
9. Handle phlebotomy instruments such as needles and scalpel blades, with extreme caution.
10. Place used needles, disposable syringes, skin lancets, scalpel blades, and other sharp items into a puncture-resistant biohazard container specially designed for this purpose for disposal. The container should be located as close as possible to the work area. Phlebotomists should carry puncture-resistant containers with them on the phlebotomy tray.
11. Needles must never be recapped, purposely bent, cut, broken, removed from disposable syringes, or otherwise manipulated by hand. The needle safety device must be activated IMMEDIATELY upon removal of the needle from the vein.
12. Use mouthpieces, resuscitation bags, or other ventilation devices during emergency resuscitation procedures.
13. Exudative lesions or weeping dermatitis should be covered with an occlusive dressing to prevent contamination.
14. All specimens of blood and body fluids should be put in well-constructed containers with secure lids to prevent leaking during transport. Care should be taken when collecting each specimen to avoid contaminating the outside of the container and the laboratory form accompanying the specimen.
15. Fill evacuation tubes, vials, and bottles by using their internal vacuum only. If a syringe is used, the fluid should be transferred to an evacuation tube by using a safety transfer device attached to the syringe, puncturing the tube stopper then allowing the correct amount of fluid to flow slowly into the tube along the wall. If a safety transfer device is not available, the tube should not be held when puncturing the top, place the tube in a test tube rack or some other suitable holder. Insert the needle of the syringe, with only one hand, into rubber stopper of the tubes and allow the vacuum of the tube to fill the tube. Never force blood into evacuation tube by exerting pressure on the syringe plunger.
16. Decontaminate, AS INSTRUCTED, all phlebotomy work areas with an appropriate chemical germicide after a spill of blood or other body fluid, and when work activities are completed. Laboratory counter tops should be disinfected at least once per shift.
17. Clean and decontaminate equipment that has been contaminated with blood or other body fluids before being repaired in the laboratory or transported to the manufacturer. Always follow manufacturer's recommendations.

18. Pregnant laboratory workers are not thought to be at greater risk of infection than others in the laboratory are. However, if an infection does develop during pregnancy or the mother is a carrier prior to the pregnancy, the infant is at risk of infection by prenatal transmission. Therefore, pregnant laboratory workers should be especially aware of universal precautions.