



PHARMACY TECHNICIAN TRAINING PROGRAM

PHARMACY TECHNICIAN TRAINING PROGRAM

* This program is not regulated by Texas Workforce Commission (TWC).

Admission Requirements

1. High School Diploma or GED.
2. Proficiency in English (reading, writing & speaking skills)
3. Adequate knowledge of 9th/10th grade Algebra
4. At least 18 years of age, although exceptions can be made on an individual basis
5. Hand-to-eye coordination and finger agility
6. Suitable vision, normal or corrected
7. Immunization & Background Check
May be Required by some externship locations
8. No prior criminal offenses
Certification, state licensing agencies and employers usually perform background checks on pharmacy technician candidates.

Program Description

Pharmacy technicians are entry-level personnel that work in many different pharmacy settings within the healthcare industry. They assist the pharmacist as their right-hand person in many different pharmacy practice settings. Some of the main duties of a pharmacy technician are to enter patient data and information into the computer system to process prescriptions. They are also responsible for dispensing commercially available medications, compounding specialty orders, and/or preparing intravenous medications. They refer any questions regarding prescriptions, drug information, or health matters to a pharmacist. Pharmacy techs work in a wide variety of practice settings, including community pharmacies, hospitals, the military, in-home health care settings, long term care facilities, mail service pharmacies, managed health care organizations, and educational programs. Most importantly, pharmacy technicians are responsible for creating a safe and professional environment for their patients.

Pharmacy Technicians with Contemporary Compounding training can work in a whole array of locations including, but not limited to:

- Community pharmacies
- Specialty pharmacies
- Mail-order pharmacies
- Nuclear pharmacies
- Hospital pharmacies
- Infusion centers
- Home healthcare
- Legal firms
- Pharmaceutical companies
- State boards of pharmacy
- Certification Agencies resources

Appearance / Uniform Requirements

- **Scrubs** - 2 sets of scrubs will be provided to each student
- **Shoes** - fully enclosed, rubber soled shoes (athletic shoes are acceptable) White or Black only

- **Name Tag** - provided by the school
- **A neat, clean, professional appearance is required throughout the program.** Hair pulled back and confined. tattoos must be covered. False fingernails or chipped nail polish not allowed. No fragrances. Minimal jewelry.

Required Supplies List

- Textbook/Workbook/Student Handbook - provided by the school
- Class supplies - black pen, pencils, highlighters, paper, notebook, folder for handouts

Screening / Training Requirements

- **Criminal Background Check - \$45:** Students must undergo a criminal background check on the first day of class. The criminal background check is done through the school. If the criminal background screening shows that a student has permanent and/or potentially disqualifying crimes on their criminal background check, or if they are on probation for any crime, the student may not be allowed to proceed into their clinical rotation, and the institute may refuse to allow the student to test for their state boards and obtain a completion certificate.
- **Substance Abuse Screening - \$45:** Students must have a 10-panel drug screen prior to their clinical rotation. Substance abuse screenings are done through a 3rd party.
- **TB Test** - Students must obtain and provide current documentation of TB screening prior to their clinical rotation. A TB test is valid one (1) year from the date it was read. If the student has a positive TB skin test, they must have a chest x-ray completed prior to their clinical rotation.
- **CPR Certification** - will be offered to the students prior to their clinical rotation by the institute.
- **CPR Certification** - not regulated by TWC.

Program Outline

Subject	Subject Title	Clock Hours				Semester Credit Hours
		Lec	Lab	Ext	Total	
PHT-101	Introduction to Pharmacy Practice & Technology	20	00	00	20	
PHT-102	Pharmacy Calculations	40	00	00	40	
PHT-103	Drugs and Disease States I	40	40	00	80	
PHT-104	Community Pharmacy Practice Operations	12	08	00	20	
PHT-105	Health System Pharmacy Practice Operations	30	20	00	50	
PHT-106	Computer Applications in Pharmacy Practice	40	00	00	40	
PHT-107	Interprofessional Relations in Pharmacy	30	10	00	40	
PHT-108	Drugs and disease States II	30	00	00	30	
PHT-109	Pharmacy Law and Ethics	40	00	00	40	
PHT-110	Sterile Products	40	30	00	70	
PHT-111	Pharmacy Technician Internship I	00	00	100	100	
PHT-112	Pharmacy Technician Internship II	00	00	120	120	
	Total Hours	322	108	220	650	

Course Description

PHT-101 Introduction to Pharmacy Practice and Technology

An overview of the history, structure, operation, and function of the pharmacy, and the role of the pharmacist and pharmacy support personnel. Includes: medical terminology, emphasizing common medical roots, prefixes, and suffixes; pharmaceutical abbreviations; and dosage forms and routes of administration. Also includes: information and reference resources; an introduction to third-party payment systems, HMO's, Medicare, and Medicaid; and contemporary issues, including legal and ethical aspects and future concepts in pharmacy.

(Lec 20 Cl Hrs / Lab 00 Cl Hrs / Ext 00 Cl Hrs / 20 Sem Cr Hrs) [*Prerequisite:* Admission to program]

PHT-102 Pharmacy Calculations

Mathematical computations needed in the practice of pharmacy technology. Includes fundamentals of mathematical calculations, units and measures for the calculation of drug dosages, an interpretation of the prescription or medication order. Also includes calculations of drug dosages, reducing and enlarging formulas, percentage preparations, dilution and concentration, isotonic solutions and electrolyte solutions.

(Lec 40 Cl Hrs / Lab 00 Cl Hrs / Ext 00 Cl Hrs / 40 Sem Cr Hrs) [*Prerequisite:* PHT-101]

PHT-103 Drug and Disease States I

Relationship between anatomy and physiology, disease states, and pharmaceutical therapy. Includes origins, dosage forms, and indications, and actions, routes of administration and side effects of both prescriptions and non-prescription drugs used in diseases of the central nervous system (CNS), the autonomic nervous system (ANS), Endocrine system, Musculoskeletal, and Hematologic System.

(Lec 40 Cl Hrs / Lab 40 Cl Hrs / Ext 00 Cl Hrs / 80 Sem Cr Hrs) [*Prerequisite:* PHT-101 & 102]

PHT-104 Community Pharmacy Practice Operations

An integrated course combining lecture and laboratory exercise in practical, technical, and legal aspects of drug management; distribution (dispensing); and storage in outpatient (retail). Includes pharmacy equipment and devices, materials, non-sterile dosage forms, and inventory control. Also includes small and large scale compounding, packaging and quality control; practical aspects of recordkeeping, and insurance issues relevant to the daily pharmacy operations.

(Lec 12 Cl Hrs / Lab 00 Cl Hrs / Ext 8 Cl Hrs / 20 Sem Cr Hrs) [*Prerequisite:* PHT-101, 102, 103]

PHT-105 Health System Pharmacy Practice Operations

An integrated course combining lecture and laboratory exercise in practical, technical, and legal aspects of drug management; distribution (dispensing, inpatient (hospital), and nursing home settings). Includes pharmacy equipment and devices, materials, non-sterile dosage forms, and inventory control. Also includes small and large scale compounding, packaging and quality control; practical aspects of recordkeeping, and insurance issues relevant to the daily pharmacy operations.

(Lec 30 Cl Hrs / Lab 20 Cl Hrs / Ext 00 Cl Hrs / 50 Sem Cr Hrs) [*Prerequisite:* PHT-101, 102, 103, 104]

PHT-106 Computer Applications in Pharmacy Practice

Basic concepts of computer operation. Includes the Internet, computer hardware and software, and professional pharmacy applications in retail and hospital pharmacy.

(Lec 40 Cl Hrs / Lab 00 Cl Hrs / Ext 00 Cl Hrs / 40 Sem Cr Hrs) [*Prerequisite:* PHT-101, 102, 103, 104, 105]

PHT-107 Interprofessional Relations in Pharmacy

Overview of effective communications skills needed by the pharmacy technician to use interpersonally and between the pharmacist, the patient, and other health care professionals. Includes human relations development, personality inventory, and elements in communication in areas of non-verbal, interpersonal, barriers, listening, empathy and interviewing. Also includes building better patient understanding in special situations such as death and dying, ethnicity, conflict resolution, and ethical patient care.

(Lec 30 Cl Hrs / Lab 10 Cl Hrs / Ext 00 Cl Hrs / 40 Sem Cr Hrs) [*Prerequisite:* PHT-101, 102, 103, 104, 105, 106]

PHT-108 Drug and Disease States II

Relationship between anatomy and physiology, disease states, and pharmaceutical therapy. Includes origins, dosage forms, and indications and actions, routes of administration and side effects of both prescriptions and non-prescription drugs used in disease of the Cardiovascular, Circulatory, renal, gastrointestinal, Respiratory, Infectious Diseases, Antineoplastic, Ear, Nose, and Throat, and Integumentary systems.

(Lec 30 Cl Hrs / Lab 00 Cl Hrs / Ext 00 Cl Hrs / 30 Sem Cr Hrs) [*Prerequisite:* PHT-101, 102, 103, 104, 105, 106, 107]

PHT-109 Computer Applications in Pharmacy Practice

Practical guide to pharmacy law and ethics for the pharmacy technician. Includes state and federal law, roles of the pharmacist and the pharmacy technician and ethical practices for patients.

(Lec 40 Cl Hrs / Lab 00 Cl Hrs / Ext 00 Cl Hrs / 40 Sem Cr Hrs) [*Prerequisite:* PHT-101, 102, 103, 104, 105, 106, 107, 108]

PHT-110 Sterile Products

Application of aseptic techniques and use of the laminar flow hood in the preparation of sterile products. Includes history of sterile products and parenteral therapy, characteristics of sterile products, principles of fluid and electrolyte therapy, basics of microbiology, antiseptics and sterilization, and sterile products calculations. Also includes introduction to IV labels and profile systems, aseptic techniques, total parenteral nutrition, incompatibilities, quality control, and specialized sterile products.

(Lec 40 Cl Hrs / Lab 00 Cl Hrs / Ext 30 Cl Hrs / 70 Sem Cr Hrs) [*Prerequisite:* PHT-101, 102, 103, 104, 105, 106, 107, 108, 109]

PHT-111 Pharmacy Technician Internship I

Topics and discussions of importance to the pharmacy technician. Includes employment search preparation, research reports, and technical papers. Also includes a review of the Pharmacy Technician Certification Exam's.

(Lec 00 Cl Hrs / Lab 100 Cl Hrs / Ext 00 Cl Hrs / 100 Sem Cr Hrs) [*Prerequisite:* Completion of all modules with a passing grade of C+ or better]

PHT-112 Pharmacy Technician Internship II

Topics and discussions of importance to the pharmacy technician. Includes employment search preparation, research reports, and technical papers. Also includes a review of the Pharmacy Technician Certification Exam's.

(Lec 00 Cl Hrs / Lab 00 Cl Hrs / Ext 120 Cl Hrs / 120 Sem Cr Hrs) [*Prerequisite:* Completion of internship plus all modules with a C+ or better]

The approximate time required to complete this program is 600-650 hours (430 hours of didactic; 220 hours of externship).

Course Length is about 9 months.

CLINICAL EXTERNSHIP

- (A) Externship Schedule - The Externship for the Pharmacy Technician Training Program is: 8 hours per day, 5 days per week for 5 1/2 weeks.
- (B) Each clinical site will accommodate 4 students or more.
- (C) A clinical instructor will conduct a weekly conference with the interns. The clinical instructor also will call on a daily basis to inquire about the progress of the interns.
- (D) Clinical Evaluation forms will be provided to the interns.

Pharmacy Technician Training Program (Mon., Wed., & Fri. Schedule)

8:30 - 10:30	2 hours	6 hours per day x 3 days
10:30 - 10:45	30 min break	18 hours per week
10:45 - 12:45	2 hours	18 hours x 23.8 weeks
12:45 - 1:15	30 min lunch	430 hours
1:15 - 3:15	2 hours	+220 hours of Internship

Pharmacy Technician Training Program (Tues., Thur., & Sat. Schedule)

8:30 - 10:30	2 hours	6 hours per day x 3 days
10:30 - 10:45	30 min break	18 hours per week
10:45 - 12:45	2 hours	18 hours x 23.8 weeks
12:45 - 1:15	30 min lunch	430 hours
1:15 - 3:15	2 hours	+220 hours of Internship

Tuition and Fees

Registration	\$100.00
Application Fee for Student Loan	\$55.00
Tuition	\$16,000.00
Books	\$850.00
Supplies	
Lab	
Background Check	
2 Sets of Scrubs	
Certification	
CPR	
Test Fees	
Stethoscope (Student to furnish their own)	
BP Cuff (Student to furnish their own)	
Total Cost	\$17,005.00

Progress Standards

A cumulative grade average of at least 70% is required for the student to receive the course certificate. Students will receive written notification of their progress at the midpoint and end of each unit. A student who is not making satisfactory progress at the midpoint will be placed on probation for one week. The school director will counsel the student placed on probation prior to the student

returning to class. The date, action taken, and terms of probation will be clearly indicated in the student's permanent file. If the student does not achieve satisfactory progress by the end of that week, the student's enrollment will be terminated.

A Certification of Completion

Upon completion of the program, the student will be issued a certificate of completion, and an application for certification by Competency Examination and instructions for submitting his/her application to the **National Association Affiliation:** PTCB (Pharmacy Technician Certification Board); NPTA (National Pharmacy Technician Association); AAPT (American Association Pharmacy Technician)

Certification Exam(s): PTCB

The **initial** certification fees will be paid for by the institute. If a student has to repeat the exam for the national certification, the individual will be automatically responsible for the test fees.



DIALYSIS TECHNICIAN TRAINING PROGRAM

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Admission Requirements

1. High School Diploma or GED.
2. Proficiency in English (reading, writing & speaking skills)
3. Adequate knowledge of 9th/10th grade Algebra
4. At least 18 years of age, although exceptions have been made on an individual basis
5. Hand-to-eye coordination and finger agility
6. Suitable vision, normal or corrected
7. Immunizations & Background Check
(May be Required by clinical observation sites and employers)
8. No prior criminal offenses

Recommended Prerequisites

1. Medical terminology
2. Biology coursework with emphasis on cell structure
3. CPR training
4. Previous healthcare experience

** A pre-registration screening will be required and performed by the institute before students can officially register.*

Program Description

Hemodialysis Patient Care Technicians operate machines that remove waste and excess fluids from the blood of patients whose kidneys can no longer carry out those functions. The job field for dialysis technicians can be labeled: Hemodialysis Technicians, Renal Dialysis Technicians, and Nephrology Technicians. This program is BONENT approved and thus has meet the extensive requirements for the quality and professionalism the industry supports.

This course trains students to help patients with end stage renal disease (permanent kidney failure) to receive safe and effective dialysis treatments by learning what dialysis is, how dialysis was developed, how to use and maintain dialysis equipment, how to ensure high quality care for patients and how to maintain professionalism.

Appearance / Uniform Requirements

- **Scrubs** - 2 sets of scrubs will be provided to each student
- **Shoes** - fully enclosed, rubber soled shoes (athletic shoes are acceptable) White or Black only
- **Watch with a second hand** (no digital watches are allowed)
- **Name Tag** - provided by the school
- **A neat, clean, professional appearance is required throughout the program.** Hair pulled back and confined. tattoos must be covered. False fingernails or chipped nail polish not allowed. No fragrances. Minimal jewelry.

Required Supplies List

- BP cuff / Stethoscope
- Textbook/Workbook/Student Handbook - provided by the school
- Class supplies - black pen, pencils, highlighters, paper, notebook, folder for handouts

Screening / Training Requirements

- **Criminal Background Check - \$45:** Students must undergo a criminal background check on the first day of class. The criminal background check is done through the school. If the criminal background screening shows that a student has permanent and/or potentially disqualifying crimes on their criminal background check, or if they are on probation for any crime, the student may not be allowed to proceed into their clinical rotation, and the institute may refuse to allow the student to test for their state boards and obtain a completion certificate.
- **Substance Abuse Screening - \$45:** Students must have a 10-panel drug screen prior to their clinical rotation. Substance abuse screenings are done through a 3rd party.
- **TB Test** - Students must obtain and provide current documentation of TB screening prior to their clinical rotation. A TB test is valid one (1) year from the date it was read. If the student has a positive TB skin test, they must have a chest x-ray completed prior to their clinical rotation.
- **CPR Certification** - will be offered to the students prior to their clinical rotation by the institute.
- **CPR Certification** - not regulated by TWC.

Program Outcomes

At the end of the program the student will be able to:

- Define the role of each multi-disciplinary team member
- Define scope of practice for each member
- Discuss the history of Dialysis
- Explain the following principles: diffusion, osmosis, filtration, ultrafiltration, and convection
- Discuss how the principles relate to dialysis.
- Describe the principles of fluid dynamics.
- List 10 chemicals in tap water
- Identify all components of a water treatment room.
- Describe the function of three components of water treatment for hemodialysis.
- Identify all organs of the Urinary system.
- Describe the function of the kidneys.
- Explain the importance of electrolytes in the renal patient.
- List five complications of hemodialysis.
- Explain the prevention for five complications of hemodialysis
- Identify the 3 different types of membranes and dialyzers
- Calculate UFR and TMP
- Identify 4 ways Kt/V and URR can be improved
- Discuss the purpose of dialysate
- List the composition of dialysate

- Discuss the purpose of bicarbonate
- List the composition of bicarbonate
- Identify 3 components of hemodialysis delivery systems

Program Outline

Subject	Subject Title	Clock Hours				Semester Credit Hours
		Lec	Lab	Ext	Total	
DIAL-101	Introduction to Dialysis	20	00	00	20	
DIAL-102	Core Components of Hemodialysis	20	00	00	20	
DIAL-103	Dialyzer Equipment	20	30	00	50	
DIAL-104	Medicare and Insurance Regulations in Dialysis	10	00	00	10	
DIAL-105	Dialysis Monitoring	20	20	00	40	
DIAL-106	Venipuncture in Hemodialysis	20	20	00	40	
DIAL-107	Nutrition Management	20	10	00	30	
DIAL-108	Medications Problems and Dialysis	10	10	00	20	
DIAL-109	Peritoneal Dialysis and Home Dialysis Therapy	20	10	00	30	
DIAL-110	Transportation	10	00	00	10	
DIAL-111	Pediatric Dialysis	20	00	00	20	
DIAL-112	Chronic Kidney Disease in the Elderly	10	00	00	10	
DIAL-113	Patient Education Guidelines Management of Quality in Dialysis Care	10	00	00	10	
DIAL-114	Basic Math Calculations	10	00	00	10	
DIAL-115	National Certification Exam Review	10	00	00	10	
DIAL-116	Dialysis Externship	00	00	200	200	
	Total Hours	250	100	200	550	

Course Description

The approximate time required to complete this program is 36 weeks or 550 contact hours. 250 hours of didactic, 100 hours of lab, simulation and clinical observation and 200 hours of externship.

DIAL-101 Introduction to Dialysis

- (1) Introduction to Health Sciences
 - (2) Renal Medical Terminology
 - (3) Basic Biology and Chemistry
 - (4) Basic Math Skills
 - (5) Definitions and application of scientific principles related to hemodialysis.
 - (6) Renal Physiology and the Pathology
 - (7) Clinical Manifestations of chronic kidney disease.
- (Lec 20 Cl Hrs / Lab 00 Cl Hrs / Ext 00 Cl Hrs / 20 Sem Cr Hrs) [*Prerequisite:* Admission to program]

DIAL-102 Core Components of Hemodialysis

- (1) Renal Impact of Diabetes
- (2) Complications occur during treatment
- (3) Air embolism
- (4) Dialyzers, Dialysate and delivery systems.
- (5) Principles of Hemodialysis

(6) Water treatment

(Lec 20 Cl Hrs / Lab 00 Cl Hrs / Ext 00 Cl Hrs / 20 Sem Cr Hrs) [*Prerequisite:* DIAL-101]

DIAL-103 Dialyzer Equipment

- (1) Dialyzer preparation and reprocessing
- (2) Dialysate types and functions
- (3) Hemodialysis delivery systems
- (4) Central Venous Catheters

(Lec 20 Cl Hrs / Lab 30 Cl Hrs / Ext 00 Cl Hrs / 50 Sem Cr Hrs) [*Prerequisite:* DIAL-101 & 102]

DIAL-104 Medicare and Insurance Regulations in Dialysis

- (1) Proper documentation techniques
- (2) Causes of infections and aseptic technique based on Medicare regulations.
- (3) Interpretative guidelines provided by Medicare conditions of coverage

(Lec 10 Cl Hrs / Lab 00 Cl Hrs / Ext 00 Cl Hrs / 10 Sem Cr Hrs) [*Prerequisite:* DIAL-101, 102, 103]

DIAL-105 Dialysis Monitoring

- (1) Patient and machine monitoring and assessment
- (2) Access to the bloodstream
- (3) Anticoagulation and heparin administration

(Lec 20 Cl Hrs / Lab 20 Cl Hrs / Ext 00 Cl Hrs / 40 Sem Cr Hrs) [*Prerequisite:* DIAL-101, 102, 103, 104]

DIAL-106 Venipuncture in Hemodialysis

- (1) Luternal access
- (2) AV fistula
- (3) Grafts
- (4) Different types of access
- (5) Special care
- (6) Special problems with grafts and fistulas
- (7) Aseptic preparation for cannulation of a luternal vascular access
- (8) Types of needles

(Lec 20 Cl Hrs / Lab 20 Cl Hrs / Ext 00 Cl Hrs / 40 Sem Cr Hrs) [*Prerequisite:* DIAL-101, 102, 103, 104, 105]

DIAL-107 Nutrition Management

- (1) Why is diet important for people with renal disease?
- (2) What is the role of a registered dietician
- (3) What diet concerns are present before the initiation of dialysis?
- (4) Diet modification
- (5) Protein amount
- (6) Potassium amount
- (7) Sodium
- (8) Fluid amount
- (9) Calcium and phosphorous intake
- (10) Laboratory monitoring

(Lec 20 Cl Hrs / Lab 10 Cl Hrs / Ext 00 Cl Hrs / 30 Sem Cr Hrs) [*Prerequisite:* DIAL-101, 102, 103, 104, 105, 106]

DIAL-108 Medication Problems and Dialysis

- (1) How do drugs cause renal impairment?
 - (2) Medications absorption in the dialysis patient
 - (3) Elimination of medications in the dialysis patient
 - (4) Drugs with active and toxic metabolites
 - (5) Dialysis patient and anemia. How to treat anemia in the dialysis patient?
 - (6) Transfusion in the patient with chronic kidney disease.
 - (7) Hypertension- How to treat HTN in patients with chronic kidney disease
- (Lec 10 Cl Hrs / Lab 10 Cl Hrs / Ext 00 Cl Hrs / 20 Sem Cr Hrs) [*Prerequisite:* DIAL-101, 102, 103, 104, 105, 106, 107]

DIAL-109 Peritoneal Dialysis and Home Therapy

- (1) What is peritoneal dialysis and how does it work?
 - (2) What solutions are used?
 - (3) What are the 3 different ways to perform PD (Peritoneal dialysis)?
 - (4) What kind of catheter are used in PD
 - (5) How does the physician determine if PD is the proper treatment
- (Lec 20 Cl Hrs / Lab 10 Cl Hrs / Ext 00 Cl Hrs / 30 Sem Cr Hrs) [*Prerequisite:* DIAL-101, 102, 103, 104, 105, 106, 107, 108]

DIAL-110 Transplantation

- (1) History
 - (2) How long patient have to wait to receive a kidney transplant?
 - (3) Advantages
 - (4) Disadvantages
 - (5) Who should be considered as a transplant candidate?
 - (6) Different kind of transplant rejections
 - (7) How is rejection diagnosed and treated?
- (Lec 10 Cl Hrs / Lab 00 Cl Hrs / Ext 00 Cl Hrs / 10 Sem Cr Hrs) [*Prerequisite:* DIAL-101, 102, 103, 104, 105, 106, 107, 108, 109]

DIAL-111 Pediatric Dialysis

- (1) Causes of acute kidney injury in children
 - (2) Causes of chronic kidney disease in children
 - (3) Vascular access considerations in Pediatrics
- (Lec 20 Cl Hrs / Lab 00 Cl Hrs / Ext 00 Cl Hrs / 20 Sem Cr Hrs) [*Prerequisite:* DIAL-101, 102, 103, 104, 105, 106, 107, 108, 109, 110]

DIAL-112 Chronic Kidney Disease In The Elderly

- (1) Different causes
 - (2) Renal replacement therapy
 - (3) Advantages of PD for elderly patients
 - (4) Advantages of HD treatment in CKD patients
- (Lec 10 Cl Hrs / Lab 00 Cl Hrs / Ext 00 Cl Hrs / 10 Sem Cr Hrs) [*Prerequisite:* DIAL-101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111]

DIAL-113 Patient Education Guidelines

- (1) What is health literacy?
- (2) Adult learning principles to be considered when teaching patients
- (3) Learning style assessment
- (4) Communication, effective way
- (5) Ineffective way

(Lec 10 Cl Hrs / Lab 00 Cl Hrs / Ext 00 Cl Hrs / 10 Sem Cr Hrs) [Prerequisite: DIAL-101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112]

DIAL-114 Basic Math Calculations

- (1) The metric system
- (2) Common abbreviations used in health care
- (3) Common conversions used in health care
- (4) Calculation of fluid removal
- (5) Weight calculation
- (6) Ratios and proportions

(Lec 10 Cl Hrs / Lab 00 Cl Hrs / Ext 00 Cl Hrs / 10 Sem Cr Hrs) [Prerequisite: DIAL-101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113]

DIAL-115 National Certification

- (1) Exam review

(Lec 10 Cl Hrs / Lab 00 Cl Hrs / Ext 00 Cl Hrs / 10 Sem Cr Hrs) [Prerequisite: DIAL-101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114]

DIAL-116 Externship

- (1) The candidate should complete all tests, all labs and achieve a minimum of C+ or better to be able to participate in the externship program.

(Lec 10 Cl Hrs / Lab 00 Cl Hrs / Ext 00 Cl Hrs / 10 Sem Cr Hrs) [Prerequisite: DIAL-101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115]

CLINICAL EXTERNSHIP

- (A) Externship Schedule - The Externship for the Pharmacy Technician Training Program is: 8 hours per day, 5 days per week for 5 weeks.
- (B) Each clinical site will accommodate 4 students or more.
- (C) A clinical instructor will conduct a weekly conference with the interns. The clinical instructor also will call on a daily basis to inquire about the progress of the interns.
- (D) Clinical Evaluation forms will be provided to the interns.

Class Schedules Day

Dialysis Technician Training Program (Schedule)

8:30 - 10:30	2 hours class	5 hours per day
10:30 - 10:45	15 min break	
10:45 - 12:45	2 hours class	3 days per week
12:45 - 1:15	30 min lunch	
1:15 - 2:15	1 hour class	15 hours per week

15 Hours Per Week

Course Length: 30 Weeks

Contact Hours: 350 contact hours

Externship: 200 hours

Monday/ Tuesday / Thursday: 8:30 A.M. - 2:15 P.M.
5 Weeks Internship
8 Hours a Day at a Dialysis Center

Tuition and Fees

Registration	\$100.00
Application Fee for Student Loan	\$55.00
Tuition	\$10,000.00
Books	} \$850.00
Supplies	
Lab	
Background Check	
2 Sets of Scrubs	
Certification	
CPR	
Test Fees	
Stethoscope (Student to furnish their own)	
BP Cuff (Student to furnish their own)	
Total Cost	\$11,005.00

Progress Standards

A cumulative grade average of at least 70% is required for the student to receive the course certificate. Students will receive written notification of their progress at the midpoint and end of each unit. A student who is not making satisfactory progress at the midpoint will be placed on probation one week. The school director will counsel the student placed on probation prior to the student returning to class. The date, action taken, and terms of probation will be clearly indicated in the student's permanent file. If the student does not achieve satisfactory progress by the end of that week, the student's enrollment will be terminated.

A Certification of Completion

Upon completion of the program the student will be issued a certificate of completion and an application for certification by competency examination and instructions for submitting his/her application to the **National Association Affiliation: BONENT** (The Board of Nephrology Examiners Nursing Technology)

Certification Exam(s): Students are eligible to take one of three dialysis certification exam: CCHT (offered through NNCC); CCNT (offered through National Nephrology Certification Organization); CHT, (offered through BONENT).



PATIENT CARE TECHNICIAN TRAINING PROGRAM

PATIENT CARE TECHNICIAN TRAINING PROGRAM

* This program is not regulated by Texas Workforce Commission (TWC).

Admission Requirements

1. Apply and complete an interview and Tour of the Facility with an Admissions Counselor and be accepted in the program.
2. High School Diploma or G.E.D.
3. Proficiency in English (reading, writing & speaking skills)
4. At least 18 years of age, although exceptions have been made on an individual basis
5. Hand-to-eye coordination and finger agility
6. Suitable vision, normal or corrected
7. Immunizations & Background Check
(May be required by some externship locations)
8. No prior criminal offenses
9. Being a certified nurse assistant
(Although exceptions can be made on an individual basis)

Program Description

In today's health care delivery approach of disease prevention and reduction of adverse events for patients, a variety of skills is needed to achieve a better outcome. Patient Care Technicians are involved in a variety of tasks including monitoring vital signs, drawing blood, performing EKG, removing peripheral IV's, to name just a few.

Appearance / Uniform Requirements

- **Scrubs** - 2 sets of scrubs will be provided to each student
- **Shoes** - fully enclosed, rubber soled shoes (athletic shoes are acceptable) White or Black only
- **Watch with a second hand** (no digital watches are allowed)
- **Name Tag** - provided by the school
- **A neat, clean, professional appearance is required throughout the program.** Hair pulled back and confined. tattoos must be covered. False fingernails or chipped nail polish not allowed. No fragrances. Minimal jewelry.

Required Supplies List

- **BP Cuff/Stethoscope/Gait Belt**
- Textbook/Workbook/Student Handbook - provided by the school
- Class supplies - black pen, pencils, highlighters, paper, notebook, folder for handouts

Screening / Training Requirements

- **Criminal Background Check - \$45:** Students must undergo a criminal background check on the first day of class. The criminal background check is done through the school. If the criminal background screening shows that a student has permanent and/or potentially disqualifying crimes on their criminal background check, or if they are on probation for any crime, the student may not be allowed to proceed into their

clinical rotation, and the institute may refuse to allow the student to test for their state boards and obtain a completion certificate.

- **Substance Abuse Screening - \$45:** Students must have a 10-panel drug screen prior to their clinical rotation. Substance abuse screenings are done through a 3rd party.
- **TB Test** - Students must obtain and provide current documentation of TB screening prior to their clinical rotation. A TB test is valid one (1) year from the date it was read. If the student has a positive TB skin test, they must have a chest x-ray completed prior to their clinical rotation.
- **CPR Certification** - will be offered to the students prior to their clinical rotation by the institute.
- **CPR Certification** - not regulated by TWC.

Program Outline

Subject	Subject Title	Clock Hours				Semester Credit Hours
		Lec	Lab	Ext	Total	
PCT-101	General Patient Care (ADL's, Vitals) Transfer	30	10	00	40	
PCT-102	Performing Dressing Changes, Sterile Aseptic Removing PIV's	10	05	00	15	
PCT-103	Transfer Mobility Skin Care	20	15	00	35	
PCT-104	Phlebotomy PT's Preparation for Phlebotomy and EKG	25	20	00	45	
PCT-105	Safety	20	10	00	30	
PCT-106	Professional Responsibilities	15	00	00	15	
PCT-107	Infection Control	10	05	00	15	
PCT-108	Phlebotomy Primary Collections Venipuncture, Special, Collections, Processing, Labeling Autoclaving	50	30	00	80	
PCT-109	EKG Monitoring Calculating H.R. Measuring Heart Condition Identify Lethal Rythm	25	20	00	45	
PCT-110	Externship	00	00	00	220	
	Total Hours	205	115	220	540	

Course Description

The approximate time required to complete this program is 6-8 months with 220 hours of externship. Proposed weekly schedule Monday-Thursday 8:30 AM - 3:15 PM, and may be some Saturdays.

PCT-101 General Patient Care (ADL's, Vitals) Transfer

General Patient Care, at the completion of this module the student will be able to:

- (1) Provide basic patient care under the direction of nursing staff (e.g., bathing, bed making, catheter care, transfer, assisting with ADL's)
- (2) Provide emotional support for patients and their families while performing patient care.
- (3) Support the coping mechanisms of patients and their families who are dealing with grief, death, and dying.

- (4) Set up equipment to be used by the patient (e.g., oxygen, alternating pressure mattresses).
- (5) Provide patient care for a patient with a feeding tube (e.g., aspiration precautions, observe tubing for kinks or problems).
- (6) Perform care related to the special needs patient (e.g., physically, sensory, cognitively or mentally impaired).
- (7) Report any new changes in the patient's condition (e.g., level of consciousness, shortness of breath).
- (8) Monitor and record functions related to digestion (e.g., bowel movements, percentage of meal eaten).
- (9) Monitor, record, and accurately measure intake/output (e.g., urine, emesis, wound drainage).
- (10) Assist in admission, discharge, and/or transfer of patient to another unit or facility.
- (11) Follow the established restorative plan of care ordered for the patient.
- (12) Perform passive Range of Motion (ROM) for the patient.
- (13) Assist with restorative rehabilitation activities (e.g., bowel and bladder retraining).
- (14) Use adaptive devices for activities of daily living (e.g., feeding and dressing devices).
- (15) Keep patient area clean.
- (16) Monitor and record vital signs.
 - i. Blood pressure (manually)
 - ii. Blood pressure (electronically)
 - iii. Pulse (manually)
 - iv. Pulse (electronically)
 - v. Apical pulse
 - vi. Apical-radial deficit
 - vii. Respirations (manually)
 - viii. Respirations (electronically)
 - ix. Pulse oximetry

(Lec 30 Cl Hrs / Lab 10 Cl Hrs / Ext 00 Cl Hrs / 40 Sem Cr Hrs) Pre-Requisite: Being a Certified Nursing Assistant

PCT-102 Performing Dressing Change Steril Aseptic Removing PIV's

At the completion of this module the student will be able to:

- (1) Remove peripheral IV's.
- (2) Perform dressing changes.
 - i. Sterile
 - ii. Aseptic

(Lec 10 Cl Hrs / Lab 05 Cl Hrs / Ext 00 Cl Hrs / 15 Sem Cr Hrs) Pre-Requisite: Completion of PCT-101

PCT-103 Transfer Mobility Skin Care

At the completion of this module the student will be able to:

- (1) Transfer a patient using a mechanical lift.
- (2) Manually lift and transfer a patient.
- (3) Apply immobility splints to patients.
- (4) Provide one-on-one care for patients who at risk for suicide.
- (5) Provide skin care (e.g., repositioning, creams, moisture barrier).
- (6) Identify and report changes in skin integrity.
- (7) Utilize devices to prevent skin breakdown (e.g., air mattress, draw sheets).
- (8) Apply sequential compression boots.
- (9) Apply anti-embolitic stockings (e.g., TED hose).
- (10) Assist the patient with coughing, deep breathing exercises.

- (11) Perform first aid, CPR, and rapid response procedures.
- (12) Report critical values to the appropriate nurse in charge of the patient.
- (13) Assist the patient with incentive spirometry.
- (14) Check dressings for increased saturation and changes.
- (15) Follow the 5 Rights of Delegation.
- (16) Prioritize patient care based on patient needs.
- (17) Recognize visual abnormalities in patient specimens (e.g., stool, sputum, urine, emesis).
- (18) Monitor vital signs and patient status during blood transfusions.
- (19) Assist patient with taking self-administered prescribed medications.
- (20) Apply oxygen therapy (e.g., nasal cannula, mask).
- (21) Assist with patient-administered nebulizer treatments.
- (22) Weigh a patient (e.g., standing, wheelchair, or bed scales).
- (23) Assist patients with orthotic or prosthetic devices (e.g., hearing aids, dentures, artificial eye, or extremities).

(Lec 20 Cl Hrs / Lab 15 Cl Hrs / Ext 00 Cl Hrs / 35 Sem Cr Hrs) Pre-Requisite: Completion of PCT-101, 102

PCT-104 Phlebotomy PT's Preparation for Phlebotomy and EKG

At the completion of this module the student will be able to:

Patient Care and Preparation Related to Phlebotomy and EKG

- (1) Conduct appropriate introduction to the patient.
- (2) Explain the phlebotomy procedure to be performed to the patient.
- (3) Review the requisition for testing requirements and patient identity.
- (4) Receive implied or informed consent from the patient.
- (5) Determine venipuncture site accessibility based on patient age and condition.
- (6) Verify patient compliance with testing requirements (e.g., fasting, medication, basal state)
- (7) Prepare the patient
 - i. EKG monitoring (e.g., patient history, cardiac medications, patient positioning).
 - ii. Holter monitoring
 - iii. Stress testing
 - iv. Telemetry monitoring
- (8) Apply electrodes on patients
 - i. EKG monitoring
 - ii. Holter monitoring
 - iii. Stress testing
 - iv. Telemetry monitoring
 - v. Pediatric Patients with special considerations (e.g., right-sided heart, posterior chest, amputations)
- (9) Respond to signs and symptoms of cardiopulmonary compromise.
- (10) Monitor patient condition during stress testing.
- (11) Respond to complications during stress testing.
- (12) Verify patient understanding of Holter monitor procedures.

(Lec 25 Cl Hrs / Lab 20 Cl Hrs / Ext 00 Cl Hrs / 45 Sem Cr Hrs) Pre-Requisite: Completion of PCT-101, 102, 103

PCT-105 Safety

At the completion of this module the student will be able to:

- (1) Identify and report
 - i. Abuse or neglect of patients
 - ii. Sexual harassment involving patients or staff
 - iii. Substance abuse involving patients or staff

- iv. Domestic violence/intimate partner abuse involving patients or staff.
 - (2) Transport patients using proper body mechanics.
 - (3) Transfer patients using proper body mechanics.
 - (4) Monitor patients' environmental safety (e.g., fall precautions, faulty equipment).
 - (5) Prevent workplace injuries by following OSHA guidelines.
 - (6) Recognize and respond to emergency situations (e.g., fire, hostage, biological hazard).
 - (7) Follow the proper procedures for identifying patients.
 - (8) Follow Joint Commission (JCAHO) patient safety guidelines.
 - (9) Practice safety procedures when using medical supplies and equipment (e.g., lock the hospital bed, lock wheelchairs, raise stretcher side rails, apply safety belts and restraints).
 - (10) Report and document work-related accidents.
 - (11) Dispose of biohazardous materials properly, as dictated by
 - (12) OSHA (e.g., sharps containers, red bags).
 - (13) Follow exposure control plans in the event of occupational exposure.
 - (14) Wear personal protective equipment while following standard precautions (e.g., gloves, gowns, masks, shoe covers).
 - (15) Perform aseptic technique.
 - (16) Perform sterile technique.
 - (17) Perform home health aide services.
 - (18) Perform hospice/palliative aide care services.
 - (19) Perform ostomy care (excluding irrigation).
 - (20) Assist with ostomy care.
 - (21) Perform postmortem care.
 - (22) Observe for and report edema.
 - (23) Observe and report patient pain using a pain scale.
- (Lec 20 Cl Hrs / Lab 10 Cl Hrs / Ext 00 Cl Hrs / 30 Sem Cr Hrs) Pre-Requisite: Completion of PCT-101, 102, 103, 104

PCT-106 Professional Responsibilities

At the completion of this module the student will be able to:

- (1) Obtain and maintain Basic Cardiac Life Support (BLS) certification for health care providers.
- (2) Adhere to HIPAA regulations regarding Protected Health Information (PHI).
- (3) Communicate with other health care professionals using appropriate medical terminology.
- (4) Observe the chain of command in a healthcare setting.
- (5) Use therapeutic communication when talking to patients (e.g., interpersonal skills).
- (6) Adhere to regulations regarding operational standards (e.g., JCAHO, CLSI).

(Lec 15 Cl Hrs / Lab 00 Cl Hrs / Ext 00 Cl Hrs / 15 Sem Cr Hrs) Pre-Requisite: Completion of PCT-101, 102, 103, 104, 105

PCT-107 Infection Control

At the completion of this module the student will be able to:

- (1) Use universal, standard, and transmission-based precautions.

(Lec 10 Cl Hrs / Lab 05 Cl Hrs / Ext 00 Cl Hrs / 15 Sem Cr Hrs) Pre-Requisite: Completion of PCT-101, 102, 103, 104, 105, 106

PCT-108 Phlebotomy Primary Collections Venipuncture, Special, Collections, Processing, Labeling Autoclaving

At the completion of this module the student will be able to:

- (1) Primary Collections
 - i. Demonstrate proper insertion and removal techniques for venipuncture.

- ii. Perform capillary collection method based on patient age and condition.
- iii. Ensure patient safety throughout the collection process.
- iv. Perform venipuncture steps in correct order (e.g., evacuate tube system, syringe, winged collection set).
- v. Perform capillary (dermal) puncture steps in correct order.
- vi. Recognize common complications from primary collection (e.g., lack of blood flow, hematoma, petechiae, nerve injury).
- vii. Identify problematic patient signs and symptoms throughout collection (e.g., syncope, diaphoresis, nausea, seizure).
- viii. Follow order of draw
 - 1. a) Venipuncture
 - 2. b) Capillary collection
- ix. Ensure that tube additives are appropriate for testing requirements.
- x. Assemble equipment needed for primary blood collections.
- xi. Invert evacuated tubes with additives after collection.
- xii. Verify quality of equipment (e.g., sterility, expiration date, manufacturer's defects).

(2) Special Collections

- i. Prepare peripheral blood smears.
- ii. Perform blood culture collections.
- iii. Assist other healthcare professionals with blood culture collections.
- iv. Collect blood samples for inborn errors of metabolism (e.g., PKU, galactosemia).
- v. Perform phlebotomy for blood donations.
- vi. Calculate volume requirements to avoid causing iatrogenic anemia.

3) Processing

- i. Label all specimens.
- ii. Perform quality control for CLIA-waived procedures.
- iii. Transport specimens based on handling requirements (e.g., temperature, light, time).
- iv. Explain non-blood specimen collection procedures to patients (e.g., stool urine, semen, sputum).
- v. Handle patient-collected, non blood specimen.
- vi. Avoid pre-analytical errors when collecting blood specimens (e.g., QNS, hemolysis).
- vii. Adhere to chain of custody guidelines when required (e.g., forensic studies, blood alcohol, drug screen).
- viii. Prepare samples for transportation to a reference (outside) laboratory.
- ix. Coordinate communication between non-laboratory personnel for processing and collection.
 - x. Use technology to input and retrieve specimen data.
 - xi. Report critical values to point of care testing.
 - xii. Distribute laboratory results to ordering providers.

(Lec 50 Cl Hrs / Lab 30 Cl Hrs / Ext 00 Cl Hrs / 80 Sem Cr Hrs) Pre-Requisite: Completion of PCT-101, 102, 103, 104, 105, 106, 107

PCT-109 EKG Monitoring

At the completion of this module the student will be able to:

- (1) Calculate patient heart rate from the EKG tracing (e.g., 6-second method, R to R, sequencing)
- (2) Identify artifacts from the tracing (e.g., wandering baseline, somatic, electrical).
- (3) Resolve artifacts from the tracing (e.g., wandering baseline, somatic, electrical).

- (4) Record leads on a patient;
 - i. 3-lead
 - ii. 5-lead
 - iii. 12-lead
 - (5) Verify the leads recorded on an EKG.
 - (6) Upload a completed EKG to a patient's electronic medical record.
 - (7) Mount a completed EKG for a patient's chart.
 - (8) Measure a patient's heart rhythm from the EKG tracing.
 - (9) Inspect the waveforms of a cardiac cycle for symmetry, direction, and amplitude (e.g., P waves, QRS complexes, ST segments, T waves).
 - (10) Measure a patient's heart conduction from the EKG tracing (e.g., PR-interval (PRI), QRS duration, QT-interval).
 - (11) Identify the major classification of arrhythmias from the EKG tracing (e.g., sinus, atrial, ventricular, and junctional).
 - (12) Identify the major variances to wave forms related to ischemia, injury, or infarction.
 - (13) Respond to potentially life-threatening arrhythmias.
 - (14) Verify EKG machine paper speed (e.g. 25mm, 50mm).
 - (15) Verify EKG machine sensitivity (e.g., h, I,2).
 - (16) Maintain EKG equipment and the work environment.
 - (17) Recognize pacemakers spike o an EKG tracing.
- (Lec 45 Cl Hrs / Lab 30 Cl Hrs / Ext 00 Cl Hrs / 75 Sem Cr Hrs) Pre-Requisite: Completion of PCT-101, 102, 103, 104, 105, 106, 107, 108

PCT-110 Externship

At the completion of this module the student will be able to participate in the externship.

Graduates receive a certificate of completion for the program. Patient Care Technician's receive hands-on, real world training from preceptors and instructors that are experienced in the patient care occupation. Students will be prepared for the National Certified Patient Care Technician (NCPCT) exam with the National Healthcare Association (NHA)

CLINICAL EXTERNSHIP

- (A) Externship Schedule - The Externship for the Patient Care Technician Training Program is: 8 hours per day, 5 days per week for 5 and 1/2 weeks.
- (B) Each clinical site will accommodate 5 students or more.
- (C) A clinical instructor will keep in touch with the Externs, there will be a weekly clinical debriefing with the Externs.
- (D) A Clinical Instructor will phone daily the site to inquire about the interns.
- (E) Clinical Evaluation forms will be provided to the interns.
- (F) The clinical supervisor will also be asked to evaluate the students.

Class Schedules Day

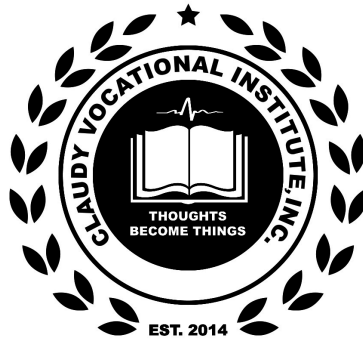
8:30 - 10:30	2 hours	6 hours per day x 5 days
10:30 - 10:45	15 min break	30 hours per week
10:45 - 12:45	2 hours	
12:45 - 1:15	Lunch	
1:15 - 3:15	2 hours	

Tuition and Fees

Registration	\$100.00
Application Fee for Student Loan	\$55.00
Tuition	\$10,000.00
Books	} \$850.00
Supplies	
Lab	
Background Check	
2 Sets of Scrubs	
Certification	
CPR	
Test Fees	
Stethoscope (Student to furnish their own)	
BP Cuff (Student to furnish their own)	
Total Cost	\$11,005.00

Progress Standards

A cumulative grade average of at least 70% is required for the student to receive the course certificate. Students will receive written notification of their progress at the midpoint and end of each unit. A student who is not making satisfactory progress at the midpoint will be placed on probation one week. The school director will counsel the student placed on probation prior to the student returning to class. The date, action taken, and terms of probation will be clearly indicated in the student's permanent file. If the student does not achieve satisfactory progress by the end of that week, the student's enrollment will be terminated.



ELECTROCARDIOGRAPHIC TECHNICIAN TRAINING PROGRAM

ELECTROCARDIOGRAPHIC TECHNICIAN TRAINING PROGRAM

* This program is not regulated by Texas Workforce Commission (TWC).

Admission Requirements

Prerequisites for this course are vital to ensure success in this program. Candidates interested in this program must meet the following prerequisites:

1. High School Diploma or G.E.D.
2. Proficiency in English (reading, writing & speaking skills)
3. At least 18 years of age, although exceptions have been made on an individual basis
4. Hand-to-eye coordination and finger agility
5. Suitable vision, normal or corrected
6. Immunizations & Background Check
(May be required by some externship locations)
7. No prior criminal offenses
(Employers often perform background checks on applicants)

Recommended Prerequisites:

1. Familiarity with anatomy and physiology
2. Knowledge of medical terminology
3. Understanding of pharmacology in cardiac drugs

Program Description

Electrocardiographic technicians perform and assist in the various diagnostic tests utilized in cardiology such as 12-leads ECGs, Stress Testing, Holter/Event monitors, Pacer checks, as well as staffing ECG monitoring stations. Electrocardiographic technicians may also assist cardiologists, cardiac nurses, and cardiovascular technologists with patient care in hospitals, catheterizations laboratories, or outpatient clinics.

The Electrocardiographic Technical Program is designed to prepare students for a new career in cardiology. The course curriculum includes general education in cardiovascular medicine with extensive training in the following areas:

1. Cardiac Anatomy and Physiology
2. Cardiac Pathology and Disorders
3. Electrophysiology and Cardiac Dysrhythmias
4. Cardiovascular Diagnostic Testing with an emphasis in 12-lead ECG, Stress Testing, Holter and Event monitoring.

Appearance / Uniform Requirements

- **Scrubs** - 2 sets of scrubs will be provided to each student
- **Shoes** - fully enclosed, rubber soled shoes (athletic shoes are acceptable) White or Black only
- **Watch with a second hand** (no digital watches are allowed)
- **Name Tag** - provided by the school
- **A neat, clean, professional appearance is required throughout the program.** Hair pulled back and confined. tattoos must be covered. False fingernails or chipped nail polish not allowed. No fragrances. Minimal jewelry.

Required Supplies List

- **BP Cuff/Stethoscope/Gait Belt**
- Textbook/Workbook/Student Handbook - provided by the school
- Class supplies - black pen, pencils, highlighters, paper, notebook, folder for handouts

Screening / Training Requirements

- **Criminal Background Check - \$45:** Students must undergo a criminal background check on the first day of class. The criminal background check is done through the school. If the criminal background screening shows that a student has permanent and/or potentially disqualifying crimes on their criminal background check, or if they are on probation for any crime, the student may not be allowed to proceed into their clinical rotation, and the institute may refuse to allow the student to test for their state boards and obtain a completion certificate.
- **Substance Abuse Screening - \$45:** Students must have a 10-panel drug screen prior to their clinical rotation. Substance abuse screenings are done through a 3rd party.
- **TB Test** - Students must obtain and provide current documentation of TB screening prior to their clinical rotation. A TB test is valid one (1) year from the date it was read. If the student has a positive TB skin test, they must have a chest x-ray completed prior to their clinical rotation.
- **CPR Certification** - will be offered to the students prior to their clinical rotation by the institute.
- **CPR Certification** - not regulated by TWC.

Program Outline

Subject	Subject Title	Clock Hours				Semester Credit Hours
		Lec	Lab	Ext	Total	
CAR-TECH -101	Patient Communication and Handling	10	00	00	10	
CAR-TECH -102	12 Lead EKG Training	10	10	00	20	
CAR-TECH -103	Exercise and Pharmacology Stress Testing	15	10	00	25	
CAR-TECH -104	Event and Holter Monitoring	15	10	00	25	
CAR-TECH -105	Pacer Checks, ECG Monitoring Station	15	10	00	25	
CAR-TECH -106	Preparation and Review	05	10	00	15	
CAR-TECH -107	Externship	00	00	30	30	
	Total Hours	70	50	30	150	

The approximate time required to complete this program is 150 hours.

70 Hours Didactic

50 Hours Mocklab

30 Hours Externship

The externship is a required period of supervised practice done off campus. Students will be placed in externship by the institute, and will receive training on proper conduct at externship sites such as health clinics.

CAR-TECH -101 Patient Communication and Handling

At the completion of this module the student will be able to:

- (1) Student should introduce himself or herself, explain the test procedure to the patient, show them where to disrobe.
 - (2) Learn proper antibacterial and antiseptic techniques before and after handling of patients.
 - (3) Learn how to prepare and position the patient prior to performing the test.
- (Lec 05 Cl Hrs / Lab 00 Cl Hrs / Ext 00 Cl Hrs / 05 Sem Cr Hrs) Pre-Requisite: Admission to the program.

CAR-TECH -102 Lead ECG Training

At the completion of this module the student will be able to:

- (1) Understand what a test referral or physician order are.
 - (2) Learn how to operate the ECG equipment with the proper settings.
 - (3) Patient data entry into ECG equipment.
 - (4) Perform proper Skin prep and 12-lead ECG lead placement.
 - (5) Perform clean ECG tracing with minimal artifact.
 - (6) Perform clean up of patient and equipment.
 - (7) Learn what to do when a potentially dangerous arrhythmia is discovered.
 - (8) Understand how and why diagnostic information is not released to the patient.
- (Lec 10 Cl Hrs / Lab 10 Cl Hrs / Ext 00 Cl Hrs / 20 Sem Cr Hrs) Pre-Requisite: Completion of PCT-101

CAR-TECH -103 Exercise and Pharmacologic Stress Testing

At the completion of this module the student will be able to:

- (1) Know how to assist in the following stress test:
 - i. Standard treadmill stress test
 - ii. Exercise or Dobutamine Stress Echocardiogram
 - iii. Exercise or Pharmacologic Nuclear Stress Test
 - (2) Learn the standard and non-standard lead placement appropriate to the test.
 - (3) Learn the safety precautions, contraindications, and adverse symptomology before, during, and after stress testing, to include procedures for calling a code and locating emergency resuscitation equipment.
 - (4) Learn how to monitor blood pressure, heart rate, and patient symptoms while exercising.
 - (5) Learn what to do when a potentially dangerous arrhythmia is discovered.
 - (6) Learn how to print and process final reports.
 - (7) Learn how to clean the equipment and prepare the room.
- (Lec 10 Cl Hrs / Lab 10 Cl Hrs / Ext 00 Cl Hrs / 20 Sem Cr Hrs) Pre-Requisite: Completion of PCT-101, 102

CAR-TECH -104 Event and Holter Monitoring

At the completion of this module the student will be able to:

- (1) Assist in the following:
 - i. Setup of Holter or Event monitors.
 - ii. Learn how to explain patient procedures.
 - iii. Learn how Holter or Event monitor data is processed.
 - iv. Learn how to clean the equipment and prepare the room.
- (Lec 10 Cl Hrs / Lab 10 Cl Hrs / Ext 00 Cl Hrs / 20 Sem Cr Hrs) Pre-Requisite: Completion of PCT-101, 102, 103

CAR-TECH -105 Pacer Checks, ECG Monitoring Station

At the completion of this module the student will be able to:

(1) Know how to perform pacer checks.

(Lec 10 Cl Hrs / Lab 10 Cl Hrs / Ext 00 Cl Hrs / 20 Sem Cr Hrs) Pre-Requisite: Completion of PCT-101, 102, 103, 104

CAR-TECH -106 Preparation and Review

The Instructor will spend time with the students to review all class material and prepare them for their Externship Experience.

(Lec 05 Cl Hrs / Lab 10 Cl Hrs / Ext 00 Cl Hrs / 15 Sem Cr Hrs) Pre-Requisite: Completion of PCT-101, 102, 103, 104, 105

CAR-TECH -107 Externship

At the completion of this module the student will be able to:

In the final stage of the program, the student will put into practice everything learned in lecture and lab setting prior the start of clinical practice. Side by side with Certified Tech the Extern will learn to:

- (1) Report on time, ready to learn, and show initiative.
- (2) Perform in a professional manner and appearance.
- (3) Show respect and courtesy to the clinical instructor.
- (4) Be teachable and be able to accept constructive criticism.
- (5) Use proper moral and ethical judgment.
- (6) Enjoy and appreciate their learning experiences.

It is the hope of the Cardiographic Technician program that each of the students are given the opportunity to learn and experience a wide encompassing variety of experiences where they can grow and become outstanding CGT technicians.

Additional experiences/observations (if available): To observe only.

- (1) Echocardiography studies
- (2) Electrophysiology studies and Radiofrequency Ablation.
- (3) Pacemaker Implantation and Analysis
- (4) Cardiac Catheterization and PCI
- (5) Cardiothoracic Surgery
- (6) Cardiac Rehab

(Lec 00 Cl Hrs / Lab 00 Cl Hrs / Ext 30 Cl Hrs / 30 Sem Cr Hrs) Pre-Requisite: Completion of PCT-101, 102, 103, 104, 105, 106

CLINICAL EXTERNSHIP

- (A) Externship Schedule - The Externship for the Cardiographic Technician Training Program is: 6 hours per day, 5 days per week for one week to be equal to 30 hours..
- (B) Each clinical site will accommodate 2 students or more.
- (C) A clinical instructor will met daily with the Externs to go over the experience.
- (D) A Clinical Instructor will phone the site Supervisor mid-day to inquire about the interns.
- (E) Clinical Evaluation forms will be provided to the interns.

Class Schedules

Electrocardiographic Technician (Day Schedule)

8:30 - 9:30	1 hour	4.5 hours per day x 5 days
9:30 - 10:20	50 min	22.5 hours per week
10:20 - 10:35	15 min break	22.5 hours x 4.5 weeks
10:35 - 11:30	55 min	70 hours (day program)
11:30 - 12:00	Lunch	30 clinical hours
12:00 - 1:30	1.5 hours	

Electrocardiographic Technician (Evening Schedule)

5:00 - 6:00	1 hour	4 hours per day x 5 days
6:00 - 6:50	50 min	20 hours per week
6:50 - 7:05	15 min break	20 hours x 5 weeks
7:05 - 8:00	55 min	70 hours (evening program)
8:00 - 8:30	dinner break	30 clinical hours
8:30 - 9:45	1.14 hour	

Tuition and Fees

Registration	\$100.00
Application Fee for Student Loan	\$55.00
Tuition	\$5,000.00
Books	\$850.00
Supplies	
Lab	
Background Check	
2 Sets of Scrubs	
Certification	
CPR	
Test Fees	
Stethoscope (Student to furnish their own)	
BP Cuff (Student to furnish their own)	
Total Cost	\$6,005.00

Progress Standards

A cumulative grade average of at least 70% is required for the student to receive the course certificate. Students will receive written notification of their progress at the midpoint and end of each unit. A student who is not making satisfactory progress at the midpoint will be placed on probation one week. The school director will counsel the student placed on probation prior to the student returning to class. The date, action taken, and terms of probation will be clearly indicated in the student's permanent file. If the student does not achieve satisfactory progress by the end of that week, the student's enrollment will be terminated.

A Certificate of Completion will be awarded to the students who achieved a grade of 70% or better.

Certification

A Electrocardiographic Technician Program prepares the students for the Certified Electrocardiographic Technician Exam (CCT) offered by the Cardiovascular Credentialing International (CCI).



PHLEBOTOMY AND EKG TECHNICIAN TRAINING PROGRAM

PHLEBOTOMY AND EKG TECHNICIAN TRAINING PROGRAM

* This program is not regulated by Texas Workforce Commission (TWC).

Admission Requirements

Prerequisites for this course are vital to ensure success in this program. Candidates interested in this program must meet the following prerequisites:

1. High School Diploma or G.E.D.
2. Proficiency in English (reading, writing & speaking skills)
3. At least 18 years of age, although exceptions could be made on an individual basis
4. Hand-to-eye coordination and finger agility
5. Suitable vision, normal or corrected
6. Immunizations & Background Check
(May be required by some externship locations)
7. No prior criminal offenses
(Employers often perform background checks on applicants)
8. Apply and tour the school.

Program Description

This course prepares students for entry level competencies as phlebotomists in hospitals, clinics, blood banks and other healthcare settings. Students will develop skills in performing phlebotomy procedures during on-campus training followed by externships. Some of the topics covered in this program include phlebotomy in relation to the healthcare settings, anatomy and physiology in relation to phlebotomy, venipuncture techniques, specimen processing, non-blood specimens, infection control and proper handling techniques. A career as a phlebotomist offers flexible hours, nice working conditions and a chance to perform an integral, respected job in the health care profession with minimal post-secondary education required. In addition, a certificate in Phlebotomy can serve as a stepping stone to other health professions involving clinical, administrative and patient care. In general, phlebotomists work directly with patients - from newborns to the elderly.

Phlebotomy technicians, or phlebotomists, are skilled healthcare professionals who collect, transport, handle, process blood and other specimens. Collection techniques include venipuncture or micro-collection. They are responsible for identifying and selecting equipment, supplies and other additives used in blood collection. Another important function is the understanding factors that affect specimen collection procedures and test results.

Phlebotomy technicians can work in a whole array of locations, including but not limited to:

1. Hospitals
2. Clinics/Public Health
3. Laboratories
4. Outpatient labs
5. Physician offices
6. Blood donor centers
7. Research institutions
8. Hospices
9. Mobile clinics
10. Emergency care

Appearance / Uniform Requirements

- **Scrubs** - 2 sets of scrubs will be provided to each student
- **Shoes** - fully enclosed, rubber soled shoes (athletic shoes are acceptable) White or Black only
- **Watch with a second hand** (no digital watches are allowed)
- **Name Tag** - provided by the school
- **A neat, clean, professional appearance is required throughout the program.** Hair pulled back and confined. tattoos must be covered. False fingernails or chipped nail polish not allowed. No fragrances. Minimal jewelry.

Required Supplies List

- Textbook/Workbook/Student Handbook - provided by the school
- Class supplies - black pen, pencils, highlighters, paper, notebook, folder for handouts

Screening / Training Requirements

- **Criminal Background Check - \$45:** Students must undergo a criminal background check on the first day of class. The criminal background check is done through the school. If the criminal background screening shows that a student has permanent and/or potentially disqualifying crimes on their criminal background check, or if they are on probation for any crime, the student may not be allowed to proceed into their clinical rotation, and the institute may refuse to allow the student to test for their state boards and obtain the completion certificate.
- **Substance Abuse Screening - \$45:** Students must have a 10-panel drug screen prior to their clinical rotation. Substance abuse screenings are done through a 3rd party.
- **TB Test** - Students must obtain and provide current documentation of TB screening prior to their clinical rotation. A TB test is valid one (1) year from the date it was read. If the student has a positive TB skin test, they must have a chest x-ray completed prior to their clinical rotation.
- **CPR Certification** - will be offered to the students prior to their clinical rotation by the institute.
- **CPR Certification** - not regulated by TWC.

Course Description

PHLE-101 Demonstrate Accepted Professional, Communication and Interpersonal Skills

At the completion of this module the student will be able to:

- (1) Demonstrate the appropriate professional behavior of a phlebotomist.
- (2) Explain to the patient the procedure to be used in specimen collection.
- (3) Follow approved procedure for labeling of specimens.
- (4) Explain in detail the importance of identifying patients correctly when drawing blood.
- (5) Implement appropriate JCAHO patient safety goals.

(Lec 06 Cl Hrs / Lab 00 Cl Hrs / Ext 00 Cl Hrs / 6 Sem Cr Hrs) Pre-Requisite: Admission to the program.

PHLE-102 Discuss Phlebotomy in relation to the Health Care Setting

At the completion of this module the student will be able to:

- (1) List, classify and discuss various departments and services within the health care setting in which the phlebotomist must interact with to obtain laboratory specimens from patients.
 - (2) Identify the major departments/sections with the clinical laboratory. the major types of procedures run in each department/section, and their specimen requirements.
 - (3) Describe roles of the major classifications of clinical laboratory personnel (i.e., pathologist, chief/administrative technologist, CLS, MT, phlebotomist, etc.
- (Lec 08 Cl Hrs / Lab 00 Cl Hrs / Ext 00 Cl Hrs / 08 Sem Cr Hrs) Pre-Requisite: PHLE-101.

PHLE-103 Identify the Anatomic Structure and Function of Body Systems in Relation to Services Performed by Phlebotomist

At the completion of this module the student will be able to:

- (1) Describe and define major body systems with emphasis on the circulatory system.
 - (2) List and describe the main superficial veins used in performing venipuncture.
 - (3) Identify appropriate sites of capillary/venipuncture and name/find the most desirable one(s).
 - (4) Describe the function of the following blood components: erythrocytes, thrombocytes, leukocytes, plasma, and serum.
- (Lec 06 Cl Hrs / Lab 06 Cl Hrs / Ext 00 Cl Hrs / 12 Sem Cr Hrs) Pre-Requisite: PHLE-101 &102.

PHLE-104 Recognize and Identify Collection Reagents Supplies, Equipment and Interfering Chemical Substances

At the completion of this module the student will be able to:

- (1) Identify and discuss proper use of appropriate types of equipment needed to collect various clinical laboratory blood specimens by venipuncture.
- (2) Explain the special precautions and types of equipment needed to collect blood from a neonate.
- (3) Identify and discuss proper use of supplies used in collecting microspecimens.
- (4) Identify and discuss the proper use of the various types of anticoagulants, preservatives and gels used in blood collection and the vacuum tube color-codes for these additives.
- (5) Describe the types of patient's specimens that are analyzed in the clinical laboratory and the phlebotomist's role in collecting and/or transporting these specimens to the laboratory.
- (6) Describe substances potentially encountered during phlebotomy which can interfere in analysis of blood constituents.
- (7) Define and utilize correct medical terminology and metric measurement needed for specimen collection.

(Lec 10 Cl Hrs / Lab 00 Cl Hrs / Ext 00 Cl Hrs / 10 Sem Cr Hrs) Pre-Requisite: PHLE-101, 102, 103.

PHLE-105 Demonstrate Skills and Knowledge Necessary to Perform Phlebotomy

At the completion of this module the student will be able to:

- (1) Recognize a properly completed requisition and apply established protocol for patient and specimen identification.
- (2) Discuss/perform methods for facilitating capillary/venipuncture collection.
- (3) Demonstrate knowledge of established protocol for patient and specimen identification.
- (4) List appropriate antiseptic agents useful in preparing sites for capillary/venipuncture.
- (5) Discuss/perform appropriate methods of preparing a sites for capillary or venipuncture.
- (6) Perform venipuncture by evacuated tube and syringe systems, demonstrating appropriate use of supplies, proper handling of equipment and specimens, and appropriate patient care.
- (7) Describe the correct order of draw during capillary and venipuncture.
- (8) Perform a capillary puncture using appropriate supplies and techniques for adults, children and neonates.

- (9) Describe the most common complications associated with capillary and venipuncture, their causes, prevention and treatment.
- (10) Describe/perform capillary/venipuncture procedures for disposing of used or contaminated supplies.
- (11) Describe/perform appropriate techniques for making a peripheral blood smear for hematologic evaluation.

(Lec 04 Cl Hrs / Lab 06 Cl Hrs / Ext 00 Cl Hrs / 10 Sem Cr Hrs) Pre-Requisite: PHLE-101, 102, 103, 104.

PHLE-106 Practice Infection Control Following Universal (Standard) Precautions

At the completion of this module the student will be able to:

- (1) Define the term “nosocomial infection.”
- (2) Describe/practice procedures for infection prevention.
- (3) Describe /perform isolation procedures.
- (4) Identify potential routes of infection.

(Lec 06 Cl Hrs / Lab 00 Cl Hrs / Ext 00 Cl Hrs / 06 Sem Cr Hrs) Pre-Requisite: PHLE-101, 102, 103, 104, 105.

PHLE-107 Practice Accepted Procedures of Transporting, Accessioning and Processing Specimens

At the completion of this module the student will be able to:

- (1) Describe routine procedures for transporting and processing specimens.
- (2) Describe the significance of time constraints for specimen collection and delivery.
- (3) Demonstrate knowledge of accessioning procedures.
- (4) Aliquot samples for testing.
- (5) Follow protocol for accepting verbal test orders.

(Lec 06 Cl Hrs / Lab 04 Cl Hrs / Ext 00 Cl Hrs / 10 Sem Cr Hrs) Pre-Requisite: PHLE-101, 102, 103, 104, 105, 106.

PHLE-108 Practice Quality Assurance and Safety

At the completion of this module the student will be able to:

- (1) Distinguish and perform procedures which ensure reliability of test results when collecting blood specimens.
- (2) Demonstrate knowledge of and practice appropriate patient safety.
- (3) Practice safety in accordance with established procedures.
- (4) Follow documentation procedures for work related accidents as per the state board of health requirements.
- (5) Review-Final Externship preparation.

(Lec 08 Cl Hrs / Lab 00 Cl Hrs / Ext 00 Cl Hrs / 08 Sem Cr Hrs) Pre-Requisite: PHLE-101, 102, 103, 104, 105, 106, 107.

EKG-100 EKG Monitoring

At the completion of this module the student will be able to:

- (1) Calculate patient heart rate from the EKG tracing (e.g., 6-second method, R to R, sequencing)
- (2) Identify artifacts from the tracing (e.g., wandering baseline, somatic, electrical).
- (3) Resolve artifacts from the tracing (e.g., wandering baseline, somatic, electrical).

- (4) Record leads on a patient;
 - i. 3-lead
 - ii. 5-lead
 - iii. 12-lead
 - (5) Verify the leads recorded on an EKG.
 - (6) Upload a completed EKG to a patient's electronic medical record.
 - (7) Mount a completed EKG for a patient's chart.
 - (8) Measure a patient's heart rhythm from the EKG tracing.
 - (9) Inspect the waveforms of a cardiac cycle for symmetry, direction, and amplitude (e.g., P waves, QRS complexes, ST segments, T waves).
 - (10) Measure a patient's heart conduction from the EKG tracing (e.g., PR-interval (PRI), QRS duration, QT-interval).
 - (11) Identify the major classification of arrhythmias from the EKG tracing (e.g., sinus, atrial, ventricular, and junctional).
 - (12) Identify the major variances to wave forms related to ischemia, injury, or infarction.
 - (13) Respond to potentially life-threatening arrhythmias.
 - (14) Verify EKG machine paper speed (e.g. 25mm, 50mm).
 - (15) Verify EKG machine sensitivity (e.g., h, I,2).
 - (16) Maintain EKG equipment and the work environment.
 - (17) Recognize pacemakers spike o an EKG tracing.
- (Lec 45 Cl Hrs / Lab 30 Cl Hrs / Ext 00 Cl Hrs / 75 Sem Cr Hrs) Pre-Requisite: PHLE-101, 102, 103, 104, 105, 106, 107, 108.

Program Outline

Subject	Subject Title	Clock Hours				Semester Credit Hours
		Lec	Lab	Ext	Total	
PHLE-101	Professional Communication & Interpersonal Skills	10	00	00	10	
PHLE-102	Phlebotomy Role in The Health Care Settings	10	00	00	10	
PHLE-103	Identify Anatomy Structure and Function of Body Systems	10	10	00	20	
PHLE-104	Collection - Reagents Supplies, Equipment and Chemical Interference	10	00	00	10	
PHLE-105	Skills and Knowledge of a Phlebotomist	10	10	00	20	
PHLE-106	Infection Control	10	00	00	10	
PHLE-107	Accessioning Processing and Transporting Specimen	10	05	00	14	
PHLE-108	Quality Assurance and Safety	10	00	00	10	
PHLE EXT	Phlebotomy Externship	00	00	120	120	
EKG-100	EKG Monitoring, Calculating HR Measuring Heart Condition, Identify Lethal Rythm	25	20	30	75	
EKG EXT	Electrocardiogram Externship	00	00	40	40	
	Total Hours	105	45	190	340	

The approximate time required to complete this program is 245 hours.

1. 180 hours didactic
2. 160* hours externship
 - i. Externship usually takes place during normal business hours during the week (Example; Monday - Friday 8:00 a.m. - 6:00 p.m.)

* Some locations have varied externship hours.

CLINICAL EXTERNSHIP

At the completion of the program, the students will be placed in a clinical setting for their externship experience

Certification

A certificate of completion will be awarded to the students who achieve a grade of 70% or better and complete all required tasks.

The student will be able to apply to their National Association Affiliation for the National Certificate. This course meets the requirements for ASCP Phlebotomy Technician RBT (ASCP), certification exam.

Certification Exam(s): Phlebotomy Technician, PBT (ASCP), National Healthcare Association (NHA).

Clinical Externship

- (A) Externship Schedule. The Externship for the Phlebotomy and EKG Technician Program is 8 hours per day, 5 days a week for 4 weeks or a total of 160 hours.
- (B) Each clinical site will accommodate 4 to 8 students.
- (C) A clinical instructor will meet daily with the externs to go over the experience.
- (D) A clinical instructor will phone the site supervisor mid-day to inquire about the interns.
- (E) Clinical Evaluation Forms will be provided to the interns.

Course length: Four to five months depending on placement of externs.

Credit Hours: 340 hours (180 hours of didactic; 140 hours of externship)

Class Schedules

Day Classes		
Monday/Tuesday/Wednesday	8:00 - 10:00am 10:00 - 10:30am Break 10:30 - 11:30am	30 min. break midpoint
Thursday/Friday/Saturday	8:00 - 10:00am 10:00 - 10:30am Break 10:30 - 11:30am	30 min. break midpoint
Evening Classes		
Monday/Tuesday/Wednesday	6:00 - 7:30pm 7:30 - 8:00pm Break 8:00 - 9:30pm	30 min. break midpoint
Thursday/Friday/Saturday	6:00 - 7:30pm 7:30 - 8:00pm Break 8:00 - 9:30pm	30 min. break midpoint

12 Weeks at 15 Hours a Week plus Externship.

Tuition and Fees

Registration	\$100.00
Application Fee for Student Loan	\$55.00
Tuition	\$9,000.00
Books	\$850.00
Supplies	
Lab	
Background Check	
2 Sets of Scrubs	
Certification	
CPR	
Test Fees	
Stethoscope (Student to furnish their own)	
BP Cuff (Student to furnish their own)	
Total Cost	\$10,005.00

Progress Standards

A cumulative grade average of at least 70% is required for the student to receive the course certificate. Students will receive written notification of their progress at the midpoint and end of each unit. A student who is not making satisfactory progress at the midpoint will be placed on probation one week. The school director will counsel the student placed on probation prior to the student returning to class. The date, action taken, and terms of probation will be clearly indicated in the student's permanent file. If the student does not achieve satisfactory progress by the end of that week, the student's enrollment will be terminated.

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