PHARMACY TECHNICIAN – REGISTRATION LEVEL

Certificate of Completion

Program Code: 3P39947

This program prepares students for employment as an entry-level pharmacy technician at a community and institutional pharmacy. The certificate program exceeds the State Board of Pharmacy's registration requirements.

Code	Title	Hours
Core Courses		
MEDO 105	Medical Terminology	48
PTEC 100	Pharmacy Technician, Introduction	60
PTEC 125	Human Relations for Healthcare Workers	36
PTEC 115	Pharmacology I	36
PTEC 120	Pharmacology II	36
PTEC 110	Pharmaceutical Mathematics	36
PTEC 105	Pharmacy Operations Lab	36
PTEC 205	Pharmacy Technician, Lab for the Out-Patient	48
PTEC 200	Pharmacy Technician, Lab for the In-Patient	48
Total Hours		**384**

Plan of Study

First Year			
First Semester	**Hours**	**Second Semester**	**Hours**
MEDO 105	48	PTEC 115	36
PTEC 100	60	PTEC 120	36
PTEC 125	36	PTEC 110	36
		PTEC 105	36
	144		**144**
Second Year			
First Semester	**Hours**		
PTEC 205	48		
PTEC 200	48		
	96		

Total Hours 384

List of Courses

MEDO 105 **48 Hours**

Medical Terminology

(Formerly MEOC 104)

This course introduces students to medical terminology in preparation for careers in the medical field. It covers the study of the basic elements of medical terms and the anatomy and physiology of the human body. It also covers different pathological conditions and procedures for their treatment. *(Apportionment)*

PTEC 100 **60 Hours**

Pharmacy Technician, Introduction

(Formerly MEOC 130) Course orients students to pharmacy practice and the work of pharmacy technicians. It covers pharmacy technician registration process and educational requirements, the role of the technician, duties and tasks technicians perform as regulated by pharmacy law, and the necessary abilities and skills for a successful career as a pharmacy technician. Textbook Required. *(Apportionment)*

PTEC 105 **36 Hours**

Pharmacy Operations Lab

Prerequisite(s): *PTEC 100 Pharmacy Technician, Introduction and COMP 685 Beginning Keyboarding or Keyboarding Challenge Exam with a pass rate of 35 net words a minute with 5 or less errors.*

This course is an introduction to the operations of a pharmacy and provides students with a working knowledge of its structural, functional, business and inter-relational aspects within the health care system. The course also covers the basics of compounding, medication distribution and inventory control. Textbook Required. *(Apportionment)*

PTEC 110 **36 Hours**

Pharmaceutical Mathematics

(Formerly MEOC 140)

Prerequisite(s): *PTEC 100 Pharmacy Technician, Introduction.*

Includes a review of basic mathematics focusing on its application to common pharmaceutical calculations; terminology, abbreviations and units needed to perform pharmaceutical calculations; and how to interpret pharmaceutical documents using acquired pharmaceutical math knowledge. Textbook Required. *(Apportionment)*

PTEC 115 **36 Hours**

Pharmacology I

(Formerly MEOC 121)

Prerequisite(s): *MEDO 105 Medical Terminology.*

Students will learn the principles of pharmacology. Students will review classifications of medicines, trade and generic names, side effects and drug interactions related to the neurological, visual, auditory, integumentary, and musculoskeletal body systems. Over-the-counter drugs including antihistamines, anti-inflammatory, analgesics, vitamins and natural substances will be covered. Textbook Required. *(Apportionment)*

PTEC 120 **36 Hours**

Pharmacology II

(Formerly MEOC 122)

Prerequisite(s): *MEDO 105 Medical Terminology.*

Students will learn the principles of pharmacology. Students will review classifications of medicines, trade and generic names, side effects and drug interactions related to the cardiovascular, blood, respiratory, urinary, digestive, endocrine and reproductive body systems. Anti-infectives, vaccines, oncology agents, as well as fluid and electrolytes are covered. Textbook Required. *(Apportionment)*

PTEC 125 **36 Hours**

Human Relations for Healthcare Workers

(Formerly MEOC 135)

Covers basic communications skills with emphasis on the healthcare profession. Topics include non-verbal communication, group communication, conflict resolution, ethics in health communication, elements of intercultural communication, resume writing, job application and interviewing techniques. Textbook Required. *(Apportionment)*

PTEC 200 **48 Hours**
Pharmacy Technician, Lab for the In-Patient
(Formerly MEDO 221)
Prerequisite(s): *PTEC 105 Pharmacy Operations Lab and PTEC 110 Pharmaceutical Mathematics and PTEC 115 Pharmacology I and PTEC 120 Pharmacology II.*
Course covers the preparation of medications given by intravenous, epidural and subcutaneous routes of administration. The student will learn aseptic techniques, pharmacy IV calculations, drug compatibilities and stabilities, IV therapy management, and specialized equipment. The laboratory incorporates use of laminar and vertical flow hoods and computerized software for IV preparation. Textbook Required. *(Apportionment)*

PTEC 205 **48 Hours**
Pharmacy Technician, Lab for the Out-Patient
(Formerly MEDO 220)
Prerequisite(s): *MEDO 105 Medical Terminology and PTEC 105 Pharmacy Operations Lab and PTEC 110 Pharmaceutical Mathematics and PTEC 115 Pharmacology I and PTEC 120 Pharmacology II.*
This course is designed to provide pharmacy technician students with practical experience in a simulated out-patient pharmacy setting. It includes hands-on experience working with a computerized pharmacy management system in the retail setting, third party billing and telephone etiquette. Textbook Required. *(Apportionment)*

Goals and Objectives

The goal of this program is to prepare students to perform entry-level duties as a pharmacy technician, under the direct supervision of a licensed pharmacist, at a community and institutional pharmacy. Basic fundamentals would include prescription order interpretation and processing, mathematic computations, state and federal regulations, and professionalism.

Program Objectives:

This program will provide students with the knowledge and skills to:

- Understand and learn about the pharmacy technician profession and career opportunities
- Understand and learn the fundamental concepts of working in a pharmacy setting
- Understand and learn state and federal laws and regulations pertaining to the practice of pharmacy
- Understand, learn, memorize and spell medical terminology, medical abbreviations and acronyms, and the trade name, generic name, and classification of determined lists of medications
- Obtain a comprehensive knowledge of pharmacology
- Understand how to complete accurate pharmaceutical mathematic computations
- Learn to accurately process prescriptions using pharmacy computer software
- Obtain theory and hands-on lab experience for outpatient and inpatient pharmacy environments, equipment, and technology
- Learn how to appropriately interact with patients, business associates, and other health care professionals

Program Goals:

- Provide students with knowledge of the pharmacy technician profession and career opportunities including legal requirements, ethical practices and scope of practice of the pharmacy technician
- Provide students the necessary theory and hands-on practice needed to demonstrate proficiency before completing the program, so they are prepared to obtain an entry-level position at a pharmacy
- Prepare students to adequately function in a community or institutional pharmacy setting
- Prepare students to appropriately interact with patients and other health care professionals

Essential Standards and Technical Functions:

Cognitive Ability:
- Apply critical thinking for collecting, analyzing, interpreting and integrating information and knowledge in order to safely and accurately process provider orders and promote positive patient outcomes and professional behavior.
- Demonstrate ability to follow policies and procedures required by clinical and academic settings.
- Demonstrate ability to organize and prioritize tasks.
- Demonstrate ability to function effectively under stress and time constraints.
- Demonstrate awareness of, and ability to work with, diverse populations.
- Demonstrate ability to follow policies and procedures required by clinical and academic settings.

Communication Ability:
- Demonstrate ability to speak, read, comprehend, and write English at a level that meets the need for clear and effective communication with instructors, peers, other healthcare professionals, and patients.
- Demonstrate ability to adjust non-verbal and verbal language appropriately to meet the needs of the multilingual and culturally diverse patients, families, and colleagues.
- Demonstrate the ability to use technology and software to communicate effectively in the workplace, with professionals and patients.

Interpersonal/ Intrapersonal Skills and Behavior:
- Demonstrate emotional and psychological stability to function under stress and to adopt to ever-changing situations.
- Follow the Professional Code of Ethics as prescribed by the APhA and APTA/NPTA.

Visual Ability:
- Demonstrate visual acuity for reading, evaluating, and processing prescriptions, labels, and packages of all types.

Auditory Ability:
- Demonstrate hearing acuity to communicate and interact with patients, pharmacists, and other health care professionals in a variety of settings.

Tactile Ability:
- Demonstrate tactile ability for preparation and compounding of sterile and non-sterile products.
- Demonstrate ability to put on, wear and remove Personal Protective Equipment, or PPE.

Olfactory Ability:

- Demonstrate olfactory ability to detect unusual odors/smells in the environment.

Strength and Mobility:

- Demonstrate physical abilities and strength to perform clinical and administrative duties.
- Demonstrate strength to lift heavy objects.
- Demonstrate ability to move in tight quarters.
- Demonstrate ability to freely walk, stand, sit, squat, balance, climb, reach, grip, lift, pull, and push as needed in the performance of clinical duties.

Motor Skills:

- Demonstrate gross and fine motor abilities to effectively prepare, package, carry, and deliver medications in a timely manner.

Physical Endurance:

- Demonstrate physical endurance to complete assigned periods, the required shift, and assigned tasks.

Environmental Tolerance:

- Demonstrate ability to work in the pharmaceutical environment.
- Demonstrate sensitivity and ability to protect self and others from environmental risks and hazards.
- Demonstrate ability to tolerate prolonged periods of time amidst artificial lighting, air conditioning, dust and odors, residue from cleaning products, noise, and congested workplace.
- Demonstrate ability to wear Personal Protective
- Equipment, or P.P.E., for extended periods of time during work, educational study, and labs.
- Demonstrate awareness that the health care environment may contain latex and other allergens, including but not limited to medication (topical and ingestible), chemical, and mundane; tolerance of such allergens in the workplace must also be demonstrated.