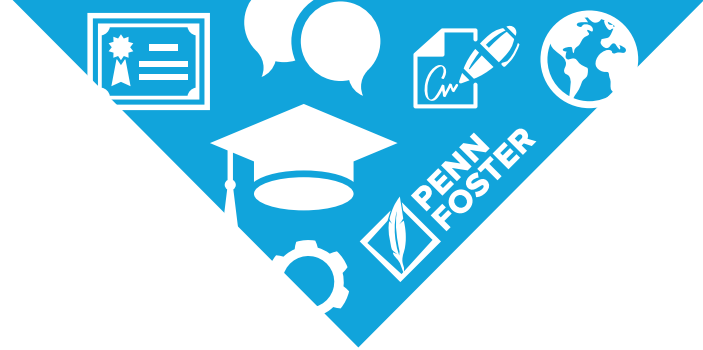# Pharmacy Technician

PROGRAM OUTLINE

PROGRAM GOAL AND OUTCOMES

Program Goal

To prepare students to take the Pharmacy Technician Certification Exam (PTCE) or NHA ExCPT exam, and gain entry-level employment as a pharmacy technician.

PTCE Knowledge Domain and Area	Program Outcomes	Courses	Evidence of Learning
1.0 Pharmacology for Technicians (13.75%)	Demonstrate knowledge and skills in areas of science relevant to the pharmacy technician's role, including anatomy/physiology and pharmacology	PHT103: Pharmacology, Drug Class, and Body Systems, Part 1	Multiple-choice lesson exams
		PHT104: Pharmacology, Drug Class, and Body Systems, Part 2	Multiple-choice lesson exams
2.0 Pharmacy Law and Regulations (12.5%)	Compare and contrast the roles of pharmacists and pharmacy technicians in ensuring pharmacy department compliance with professional standards and relevant legal, regulatory, formulary, contractual, and safety requirements	PHT101: Pharmacy Technician Orientation	Multiple-choice lesson exams
		PHT105: Pharmacy Practice Law and Regulations	Multiple-choice lesson exams
		PHT200: Pharmacy Management and Operations	Multiple-choice lesson exams
3.0 Sterile and Non-Sterile Compounding (8.75%)	Describe the steps, skills, and knowledge needed to prepare medications requiring compounding of sterile products, chemotherapy/hazardous products, and nonsterile products	PHT106: Math Calculations for Pharmacy Technicians	Multiple-choice lesson exams
		PHT107: Pharmacy Sterile and Nonsterile Compounding	Multiple-choice lesson exams
4.0 Medication Safety (12.5%)	Explain patient- and medication-safety practices in all aspects of the pharmacy technician's roles	PHT107: Pharmacy Sterile and Nonsterile Compounding	Multiple-choice lesson exams
		PHT200: Pharmacy Management and Operations	Multiple-choice lesson exams

5.0 Pharmacy Quality Assurance (7.5%)	Demonstrate knowledge of quality assurance practices for pharmaceuticals, durable and nondurable medical equipment, devices, and supplies	PHT107: Pharmacy Sterile and Nonsterile Compounding	Multiple-choice lesson exams
		PHT200: Pharmacy Management and Operations	Multiple-choice lesson exams
6.0 Medication Order Entry and Fill Process (17.5%)	Apply the steps in the medication order entry and fill process and interpret medication orders	PHT106: Math Calculations for Pharmacy Technicians	Multiple-choice lesson exams
		PHT200: Pharmacy Management and Operations	Multiple-choice lesson exams
		PHT202: Pharmacy Management Software	Multiple-choice lesson exams
7.0 Pharmacy Inventory Management (8.75%)	Demonstrate knowledge of accepted procedures in purchasing pharmaceuticals, devices, and supplies	PHT200: Pharmacy Management and Operations	Multiple-choice lesson exams
		PHT201: Pharmacy Billing and Reimbursement	Multiple-choice lesson exams
		PHT202: Pharmacy Management Software	Multiple-choice lesson exams
8.0 Pharmacy Billing and Reimbursement (8.75%)	Describe the steps needed to initiate, verify, and assist in the adjudication of billing for pharmacy services and goods, and collecting payment for these services	PHT201: Pharmacy Billing and Reimbursement	Multiple-choice lesson exams
		PHT202: Pharmacy Management Software	Multiple-choice lesson exams
9.0 Pharmacy Information System Usage and Application (10%)	Describe the use of current technology in the healthcare environment to ensure the safety and accuracy of medication dispensing	PHT200: Pharmacy Management and Operations	Multiple-choice lesson exams
		PHT202: Pharmacy Management Software	Multiple-choice lesson exams
	Explain the skills and strategies needed for professional and appropriate personal behavior and interpersonal communication	CRB100: Career Readiness	Multiple-choice lesson exams

PROGRAM STRUCTURE

Course 1: Starting Your Program

Lesson 1	**Starting Your Program**

Course 2: Pharmacy Technician Orientation

Lesson 2	**Introduction to Pharmacy Technician**

Course 3: Career Readiness

Lesson 3	**Personal Skills**
Lesson 4	**People Skills**
Lesson 5	**Workplace Skills**

Course 4: Pharmacology, Drug Class, and Body Systems, Part 1

Lesson 6	**Basics of Pharmacology**
Lesson 7	**Cardiovascular and Hematologic Systems**
Lesson 8	**Respiratory and Endocrine Systems**
Lesson 9	**Gastrointestinal, Urinary, and Reproductive Systems**

Course 5: Pharmacology, Drug Class, and Body Systems, Part 2

Lesson 10	**Integumentary and Musculoskeletal Systems**
Lesson 11	**Sensory Organs and Nervous System**
Lesson 12	**Immune System, HIV, and Cancer**
Lesson 13	**Antibiotics, Vitamins, Minerals, and Herbs**

Course 6: Pharmacy Practice Law and Regulations

Lesson 14	**Law for the Pharmacy Technician**
Lesson 15	**Ethics for the Pharmacy Technician**
Lesson 16	**Confidentiality for the Pharmacy Technician**

Course 7: Math Calculations for Pharmacy Technicians

Lesson 17	**Basic Math Skills, Measurements, and Measurement Conversion**
Lesson 18	**Medication and Prescription Orders and Their Calculations**
Lesson 19	**Special Medication Calculations and Business Math**
Textbook	***Math Calculations for Pharmacy Technicians***

Course 8: Pharmacy Sterile and Nonsterile Compounding

Lesson 20	**Aseptic Prep, IV Medications, Administration, Considerations**
Lesson 21	**IV Calculations, Equipment, Facilities, and Techniques**
Lesson 22	**IV Nutrition, Pt. Consideration, QA, Nonsterile Compounding**
Textbook	***Sterile Processing for Pharmacy Technicians***
Textbook	***Mosby's Pharmacy Technician: Principles and Practice***

Course 9: Pharmacy Management and Operations

Course 10: Pharmacy Billing and Reimbursement

Course 11: Pharmacy Management Software

Course 12: Pharmacy Technician Certification Review

COURSE DESCRIPTIONS AND OBJECTIVES

SYP101 Starting Your Program

In this course, you'll develop the necessary skills to ensure your success in the program. You'll learn how you can improve your study skills, so you're able to use a number of tools that will help you to be successful.

Course Objectives

By the end of this course, you'll be able to do the following:

- Identify skills needed to be a confident and independent online learner

PHT101 Pharmacy Technician Orientation

In this course, you'll develop the necessary skills to ensure your success in the program. You'll learn how you can improve your study skills, so you're able to use a number of tools that will help you to be successful.

Course Objectives

By the end of this course, you'll be able to do the following:

- Identify skills needed to be a confident and independent online learner
- Examine the role and responsibilities of the pharmacy technician profession over time

CRB100 Career Readiness

In this course you'll learn the personal qualities that employers look for in their employees, such as integrity and dependability. You'll review the baseline responsibilities common to most jobs and the importance of employee hand-books in a successful work environment. Strategies required to be productive and adapt to change are also covered.

You'll examine the interpersonal skills needed to ensure positive interactions with diverse populations through various channels of communication and gain strategies for overcoming communication barriers. An understanding of the importance of teamwork, different roles of team members, characteristics of leadership, and strategies for overcoming conflict employed by successful teams are critical elements of interpersonal interactions.

You'll gain an understanding of critical workplace skills. These include time management, prioritization, the decision-making process, the problem-solving process, and open-mindedness, as well as learning how to interact with customers in a professional manner.

Course Objectives

By the end of this course, you'll be able to do the following:

- Explain personal, interpersonal, and workplace qualities and skills that are essential to effective work environments

PHT103 Pharmacology, Drug Class, and body Body Systems, Part 1

This course will familiarize you with various body systems including structure, function, diseases, disorders, and treatments. You'll also learn drug delivery systems, drug administration routes, drug classifications, and commonly used medications for various organ system disorders.

Course Objectives

By the end of this course, you'll be able to do the following:

- Recognize the basic principles of pharmacology

- Identify the anatomy, physiology, diseases, and treatments of the cardiovascular and hematologic systems

- Identify the anatomy, physiology, diseases, and treatments of the respiratory and endocrine systems

- Identify the anatomy, physiology, diseases and treatments of the gastrointestinal, urinary, and reproductive systems

PHT104 Pharmacology, Drug Class, and body Body Systems, Part 2

This course is a continuation of Pharmacology, Drug Class and Body Systems, Part 1. You'll continue to learn about various body systems, drug delivery systems, drug administration routes, drug classifications, and commonly used medications for various organ system disorders. You'll also learn basic medication calculations, storage, how to assist patients with administration, and proper documentation.

Course Objectives

By the end of this course, you'll be able to do the following:

- Identify the anatomy, physiology, and diseases and treatments of the integumentary and musculoskeletal systems

- Identify the anatomy, physiology, and diseases and treatments of the sensory and nervous systems

- Identify the anatomy, physiology, and diseases and treatments of the immune system

- Explain how the Six Rights of Drug Administration dictate proper drug administration and storage

PHT105 Pharmacy Law and Regulations

In this course, students will learn how law affects healthcare practitioners, the origin of law that affects medical professionals, the basics of the process of litigation and its alternatives, the common-law basis for the confidentiality of healthcare information, and the laws regulating healthcare information collected and maintained by government agencies.

Course Objectives

By the end of this course, you'll be able to do the following:

- Interpret civil and criminal laws related to pharmacy practice

- Assess ethical issues healthcare professionals face today

- Apply confidentiality laws and regulations

PHT106 Math Calculations for Pharmacy Technicians

This course introduces the pharmacy technician student to basic math, algebra, and pharmaceutical calculations used in pharmacy practice.

Course Objectives

By the end of this course, you'll be able to do the following:

- Demonstrate basic math aptitude needed for pharmacy technician practice

- Perform calculations related to prescription orders

- Perform special medical calculations and business math used in the pharmacy

PHT107 Pharmacy Sterile and nonsterile Nonsterile Compounding

This course introduces students to sterile and non-sterilenonsterile compounding. A strong emphasis is placed on proper aseptic technique and compliance with USP 795, 797, and 800. Compounding practices and equipment are also discussed.

Course Objectives

By the end of this course, you'll be able to do the following:

- Explain the processes and considerations related to the preparation of IV solutions
- Explore IV calculations, equipment, facilities, and preparation techniques
- Explore IV nutrition, patient consideration, QA, and non-sterilenonsterile compounding

PHT200 Pharmacy Management and Operations

This course introduces the pharmacy technician student to pharmacy operations. Students will discuss the differences between pharmacy settings, examine the business applications of pharmacy, and review drug information resources, including how and when to use them. Students will also learn how to handle medication safely, and the steps involved in error prevention.

Course Objectives

By the end of this course, you'll be able to do the following:

- Examine drug information references and their proper use
- Differentiate the responsibilities of pharmacy technicians in various pharmacy settings
- Describe the importance of reporting medication errors and the preventive measures taken to reduce them

PHT201 Pharmacy Billing and Reimbursement

In this course, you'll learn about the pharmacy reimbursement process. You'll study third party healthcare plans, reimbursement systems, and claims processing to see how medical services are billed in healthcare institutions. You'll also learn about various health insurance programs, how they're funded, and which types of patients they cover.

Course Objectives

By the end of this course, you'll be able to do the following:

- Explain reimbursement methodologies related to pharmacy practice settings
- Explain the elements of pharmacy billing and proper inventory management

PHT202 Pharmacy Management Software

This course is designed to facilitate your mastery of computer skills needed to perform various pharmacy technician-related responsibilities in community and institutional pharmacy practices. The course entails a series of lab activities that walk you through entering and filling prescription orders, including TPN and IV admixtures.

Course Objectives

By the end of this course, you'll be able to do the following:

- Use database software for performing prescription processing and related community pharmacy tasks
- Use database software for the processing of medical orders and related institutional pharmacy tasks
- Prepare pharmacy reports and show comprehension of software laboratory exercises

PHT301: Pharmacy Technician Certification Review

This course is designed to strengthen your working knowledge of the concepts essential for pharmacy technician practice and serves as a review to prepare you to take the Pharmacy Technician Certification Exam.

Course Objectives

By the end of this course, you'll be able to do the following:

● Demonstrate preparedness for the Pharmacy Technician Certification Exam

Note: The titles of your learning materials may be different from those listed on your program outline. There is no need to call your instructor about these differences. While the titles of certain learning materials may differ, the educational content is the same. All learning materials are designed to give you the finest education in your field. If you need instructional assistance, however, be sure to call for help. We reserve the right to revise the program of study and the instructional materials and to substitute for the items of equipment offered.