# **Course Outline**



# Pharmacy Technician

# **Course Objectives**

Upon completion of this course, graduates will be trained to:

- Apply the skills needed to obtain entry-level pharmacy technician positions.
- Assist licensed pharmacists in providing medication and other healthcare products to patients.
- Effectively receive prescriptions from doctors and hospitals, prepare prescriptions for patients and verify insurance and prescription information.

# UNIT 1

## **Lesson 1: Welcome to the World of Pharmacy**

In this introductory lesson, you'll learn all about U.S. Career Institute. In addition, you'll explore a day-in-the-life of a pharmacy and its staff. You'll learn areas where pharmacy practice is expanding, and explore all of your great career opportunities!

Quiz 1

### **Lesson 2: The Role of the Pharmacy Technician**

You'll step into the shoes of an actual pharmacy technician, becoming familiar with the roles and duties you'll encounter in your new career. You'll also explore the communication skills you'll use to be a successful pharmacy technician.

**Quiz 2** 

### **Lesson 3: The Language of Pharmacy**

Here you'll get your first taste of how you will use pharmacy terms in your new career. Learn about root words, prefixes and suffixes and learn how to derive word parts from medical terms. In addition, you'll study abbreviations used in prescriptions and medical orders. Throughout this lesson, the Quick-learn Kit will help you master the spellings and meanings of pharmacy terminology.

Quiz 3

# Lesson 4: Pharmacy Communication: Medical Orders and Prescriptions

Learn to evaluate the written communications you will handle on a daily basis. You'll also explore ways to detect fraudulent prescriptions and medical orders.

Quiz 4

# **Lesson 5: Drug Information Sources**

Lesson 5 introduces you to drug reference resources. You'll also learn which questions you can address and which questions should be referred to the pharmacist.

Quiz 5—Trigger Quiz

#### **Lesson 6: Introduction to the Human Body**

This lesson reviews the ten basic human anatomy systems and how these systems interact in a stable, healthy human. You'll have a strong foundation from which to begin studying drugs—how they act and interact in the body.

Quiz 6

# **Lesson 7: Pharmacy Operations**

You'll step behind the scenes to explore purchasing and inventory control. You'll review issues such as maintaining product quality and disposing of expired products, as well as the potential management opportunities available to pharmacy technicians. The lesson includes a case study of one of the oldest independently owned pharmacies in the U.S.

Quiz 7

# UNIT 2

### **Lesson 8: Understanding Dosage Forms**

Discover medication dosage forms and the physiological routes they follow once administered. This lesson includes tablets, capsules, solutions, suspensions, suppositories and sprays. In addition, you'll explore measuring equipment used to prepare dosages.

Quiz 8

### **Lesson 9: Drug Actions and Interactions**

In this lesson, you'll learn the basics of drug actions and interactions. You'll then explore the body's ability to interact with different drugs at one time, and you'll gain insight into monitoring and responding when negative results occur.

Ouiz 9

# **Lesson 10: Negative Reactions: Medication Errors** and Poisons

This important lesson discusses medication errors and how pharmacy staff addresses them. You'll also study toxic substances and types of available antidotes.

Quiz 10

# Lesson 11: Special Considerations: The Young and the Old

Learn the special medication requirements of pediatric, neonatal and geriatric patients and the pharmacy technician's role in ensuring accurate drug dosages. You'll explore Body Weight and Body Surface Area calculations for proper dosage.

Your Course Code is

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Quiz 11—Trigger Quiz

#### **Lesson 12: Computers and Pharmacology**

Discover how computers have revolutionized the pharmacy industry. You'll be introduced to computer programs that help control inventory and expedite customer service.

Quiz 12

# Lesson 13: Financial Management and Health Insurance

Gain insight into the fundamentals of financial transactions, including how to process patient health insurance claims for reimbursement.

Ouiz 13



# Affiliations & Partnerships



Accredited by the Distance Education Accrediting Commission



Member of the Retter

Business Bureau





# UNIT 3

# Lesson 14: Introduction to Pharmacy Math and Measurement Systems

Review the basic math skills you'll use as a pharmacy technician, including fractions, decimals and conversions between the two. You'll also look at different systems of measurement (metric, household and apothecary) and conversions among the three systems.

Quiz 14

#### **Lesson 15: Antimicrobial Agents**

Explore the types of pathogens that can enter and infect the human body, as well as the medicinal agents available to fight those pathogens. You'll gain a foundation of knowledge of specific drugs in the antibacterial, antitubercular, antiviral, antifungal and antiprotozoal categories. And you'll learn the most up-to-date information on the battery of HIV antiviral agents currently in use.

Quiz 15

#### **Lesson 16: Antineoplastic Agents**

In this lesson, you'll discover the three types of curatives used to treat cancer—their actions, interactions and side effects. You'll explore the toxicity of specific drugs, as well as the interrelationship between hormone therapies with antineoplastic drugs. This lesson also includes an exploration of antimetabolite and mitotic inhibitor classes of drugs.

Quiz 16

#### **Lesson 17: Respiratory and Allergy Drugs**

Pharmacy technicians dispense many types of respiratory and allergy drugs that are available to U.S. consumers. This lesson will teach you about the most prevalent types and brands of drugs in this category—their therapeutic uses, actions and side effects, as well as specific respiratory conditions that affect the patient's choice of medicine, such as allergies, asthma and chronic lung conditions.

Quiz 17—Trigger Quiz

#### **Lesson 18: Pharmacy Law and Ethics**

The pharmacy technician career involves responsibility and trust. What are the laws that govern the position? What federal standards affect pharmacy technicians? What regulatory agencies oversee drugs and institutions? This lesson answers these questions, and you'll explore how regulations vary from state to state. You'll also review the code of ethics that guides pharmacy technicians in the performance of their duties.

Quiz 18

#### **Lesson 19: Central Nervous System Drugs**

In this lesson you'll identify the three classes of drugs that affect the nervous system and the therapeutic uses of each. You'll learn the names, uses, actions and side effects of antidepressants, antianxiety drugs and other drugs used to treat bipolar disorder, Alzheimer's disease, epilepsy and Parkinson's disease. In addition, you'll explore anesthetics and the four stages of anesthesia.

Quiz 19

# Walgreens Externship

Upon graduating from this course, you may be eligible for an externship with Walgreens! When you have completed all lessons, contact Student Services to request a Walgreens Packet.\*

\*Must have a final GPA of 90% or higher and be paid in full.

# UNIT 4

### **Lesson 20: Cardiovascular and Pulmonary Agents**

In Lesson 20, you'll explore the seven basic types of cardiovascular disorders, as well as the classes of drugs used to treat them. You'll learn the names, actions and side effects of cardiovascular and pulmonary agents and diuretics.

Quiz 20

#### **Lesson 21: Digestive System Drugs**

Discover the six basic categories of digestive complaints along with the therapeutic agents used to treat them. You will explore drug legends and generic names, actions and side effects in detail.

Quiz 21

#### **Lesson 22: Nutrition and Vitamins**

Although nutrients and vitamins are not considered drugs, their properties have an effect on the body. Discover how nutrients are classified and how their unique components affect bodily functions. What happens when the body doesn't have an adequate supply of a nutrient? What happens when it has too much? You'll learn the answers to these questions and more as you explore vitamins, minerals, nutrition and food additives.

Quiz 22—Trigger Quiz

### **Lesson 23: Muscle Relaxants and Analgesics**

As the U.S. population ages, muscle relaxants and other pain relievers have become more common in the daily wellness regimen. You'll become familiar with the actions, therapeutic uses, side effects, legend and generic names of these muscle relaxants, analgesics, antipyretics and anti-inflammatory agents.

Quiz 23

#### **Lesson 24: Immunological Agents**

Vaccines have changed the lives of millions of people all over the world in the last few generations. Explore the general use and special use vaccines that have been developed to combat deadly disease—their names, indications and contraindications, side effects and how they work alongside the body's immune system to fight pathogens. Differentiate between nonspecific responses to pathogens and immune response, and identify the five classes of antibodies that naturally occur in the human immunological system.

Quiz 24

#### UNIT 5

# **Lesson 25: Endocrine System and Hormones**

In this lesson you'll discover drugs that affect the body's hormones. Explore legend and generic names, therapeutic actions, interactions and side effects of medicinal agents affecting the glands that comprise the reproductive and endocrine systems.

Quiz 25

#### **Lesson 26: Pharmacy Math Calculations**

Pharmacy techs calculate drug dosages using four different methods. You will learn each of these methods to calculate dosages for liquid, tablet, capsule, parenteral and other forms of medications.

Ouiz 26

#### **Lesson 27: Compounding**

In this lesson, you'll learn how to compound, or create, medications from chemical components. Explore safety guidelines for sterile and non-sterile compounding and handling cytotoxic and hazardous drugs, as well as record-keeping when compounding or repackaging medications. In addition, you'll learn the special considerations required for parenteral compounding, and you will be introduced to the equipment used in extemporaneous compounding.

Ouiz 27

#### **Lesson 28: Practicum**

The final lesson provides a real-world practicum that allows you the opportunity to apply your pharmacy technician skills.

Quiz 28

## **GRADING CRITERIA**

92-100% = A 85-91% = B 75-84% = C 70-74% = D Below 70% = F

If you plan to work independently, your grades should consistently be above 85%. If your grades are 84% or below, you will need to make improvements to bring your skills to an employable level.

Your final grade point average will be calculated on all graded assignments in this course. You must complete all assignments and attain a final grade point average of 70% or higher to earn a certificate.



Career Starter Guide

Delivering on our promise

# **Career Starter Guide**

A U.S. Career Institute exclusive! The Career Starter Guide will give you step-by-step guidance in getting your first job. You'll learn how to create the best résumé for yourself...how to write a letter of inquiry...how to perfect your interview skills and much more.



