Pharmacy Technician Learning Package
8TH EDITION
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DESCRIPTION

The goal of the Pharmacy Technician Learning Package, 8th Edition, is to help pharmacy technicians prepare to serve in expanded roles. This training makes the pharmacy department more efficient, more effective, and safer.

The package includes an online version of the Learning Manual, the Pharmacy Technician Companion Workbook, and Pharmacy Technician Flash Cards.

Learning Manual: Print Version and Online Tutorial
The Learning Manual helps pharmacy technicians and technician trainers keep up to date with the many changes occurring in the health care and pharmacy fields. These include new drug products, new laws and regulations, changes in drug utilization patterns, and advancements in technology.

The entire Learning Manual is available online in a convenient tutorial format. Students can view the Learning Manual tutorial on a desktop computer or laptop and easily navigate the tutorial by topic.

Companion Workbook: Print Version and Online Tutorial
The Pharmacy Technician Companion Workbook is designed to be used in conjunction with the Learning Manual. The workbook provides prospective pharmacy technicians with additional practice with pharmacy calculations, interpreting directions for use, and top medication products. Students are encouraged to work through the questions before checking the answer key at the end of each section.

Flash Cards
Students can review their learning and practice with online flash cards that contain vocabulary terms and commonly prescribed drugs. The two flash card sets include more than 250 pharmacy terms and 147 drugs, both updated in 2014.
FEATURES

- Nineteen chapters focus on the various aspects of pharmacy technician practice.
- Each chapter outlines specific learning objectives by level of proficiency.
- Common medications are presented in an easy-to-read table format that includes the condition, generic name, brand name, and therapeutic use.
- Extensive use of illustrations and images help explain and clarify concepts.
- The Learning Manual is a paperbound book in an easy-to-read format.
- The glossary allows students to review definitions of select pharmacy terms.

BENEFITS

Promotes student success in pharmacy education
- Facilitates content mastery
- Improves student confidence
- Supports student understanding and practice
- Teaches essential pharmacy practice skills
- Advocates student self-learning
- Provides practice with examples

Promotes success in pharmacy practice
- Learning Manual can be viewed in hard copy or tutorial format for customized learning
- Companion Workbook provides test questions and answers to assess learning
- Flash Cards reinforce vocabulary and common drug knowledge

Supports faculty teaching practices
- Learning objectives provided for each module
- Easy-to-understand calculations
- Assign selected chapters as an adjunct to lecture in any course
- Assess and reinforce the effectiveness of in-class presentations
**RECOMMENDED USE**

*Assign a topic to research online and find a relevant current event article.*

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**CHAPTER II: BASIC OVERVIEW**
- Look up package inserts for three different medications.
- Observe how the information is ordered.

**CHAPTER III: PRESCRIPTION MEDICATIONS: GENERAL**
- Access the Electronic Orange Book online to look up brand and generic names of medications.

**CHAPTER IV: PRESCRIPTION MEDICATIONS: CONTROLLED SUBSTANCES**
- Look up your state’s board of pharmacy website. Locate the state pharmacy regulations and licensing requirements.

**CHAPTER V: PRESCRIPTIONS**
- Research meanings of SR, SA, LA, and TR initials used after a long-acting medication name.

**CHAPTER VI: PHARMACY CALCULATIONS**
- Research formulas for Clark’s rule and Young’s rule for children’s dosing. Practice the same problem with each formula and compare results.

**CHAPTER VII: PATIENT INTERACTION**
- Research examples of open-ended vs. closed-ended questions.

**CHAPTER VIII: AN OVERVIEW OF FEDERAL PRIVACY REQUIREMENTS**
- Research HIPAA on the U.S. Department of Health and Human Services website.

**CHAPTER IX: THE DISPENSING PROCESS**
- Research three types of automated counting machines.

**CHAPTER X: MANAGED CARE PRESCRIPTIONS**
- Find a website for a local health insurance company and determine if they have an online drug formulary.

**CHAPTER XI: NON-DISPENSING DUTIES**
- Research state programs to take back expired medications.

**CHAPTER XII: DRUG AND MEDICAL TERMINOLOGY**
- Research test levels included in a complete blood count.

**CHAPTER XIII: BASIC ANATOMY AND PHYSIOLOGY**
- Research steps in taking blood pressure with a cuff and stethoscope. Review the difference between diastolic and systolic pressure.

**CHAPTER XIV: COMMON DISEASE STATES**
- Research a medication that you or a family member have taken in the past. What are the indications, or uses, for the medication?

**CHAPTER XV: BASIC PHARMACOLOGY**
- Research medications that interact with grapefruit juice.

**CHAPTER XVI: OVER-THE-COUNTER (OTC) MEDICATIONS**
- Research types and features of blood glucose meters.

**CHAPTER XVII: UNIT DOSE SYSTEMS AND DRUG REPACKAGING**
- Look up package inserts for three medications. Is the medication available in blister packs?

**CHAPTER XVIII: NON-STERILE PRODUCT COMPOUNDING**
- Research the term “geometric dilution.”

**CHAPTER XIX: STERILE PRODUCT COMPOUNDING AND USP CHAPTER 797**
- Research how USP and FDA work together on the USP website.
IMPLEMENTATION STRATEGIES

General Instructional Strategies for Educators

- Read the *Learning Manual* to know exactly what topics are covered and in what order.
- Inform technician trainees where policies and procedures differ from the *Learning Manual*.
- Supplement the *Learning Manual* with handouts that explain the rules and regulations of your state.
- Consider adding common student questions with detailed answers and explanations to each chapter.
- Highlight real-world application of knowledge and skills from your experiences in pharmacy.
- Conduct assessments of material mastered and as opportunities for setting goals for improvement.
- In a working pharmacy, assign a project to the trainee that pertains to news stories or current events. If there is a drug recall, have the trainee find an article. If new legislation is in the news, ask the trainee to research the topic.
- Use the practice questions in the chapters.
- Keep in mind that adult learners often do better with hands-on learning.
- Encourage questions from trainees. Meet one-on-one to talk about progress and challenges.

Active Instructional Strategies for Educators

- Follow assigned readings the next day with tasks that relate to the learning.
- Have students teach the new concepts to the class.
- Assign readings and follow up the next day with tasks that relate to the subject matter of the chapter.
- Create index cards with questions from the chapter and have each student read the question and teach the content to the class. After each lesson, request that the group provide feedback.
- Whenever possible, break facts into segments. Ask the students to learn 20 drug names and/or 20 abbreviations per week. Larger lessons become more manageable when broken into segments.
Active Instructional Strategies for Educators (CONTINUED)

Chapter II: Basic Overview
- Demonstrate the basic flow of the pharmacy. Where do the orders come in? Where are the orders processed and filled? Where are they stored until pick-up?
- Obtain examples of different package inserts for the trainee to review.
- Show the trainee where reference books are kept in the pharmacy. Explain situations in which each book is used.

Chapter III: Prescription Medications: General
- Show the trainee examples of different-sized prescription containers and caps.
- Examine a stock bottle. Identify where the following information is located on the label: trade name, chemical name, strength, legend statement, storage requirements, quantity of package, dosage form, manufacturer’s name, controlled substance mark, lot number, expiration date, and NDC number.

Chapter IV: Prescription Medications: Controlled Substances
- Review the definition of each federal schedule and give examples of common medications.
- Pull stock bottles from pharmacy shelves and have the trainee locate the federal schedule on the label.

Chapter V: Prescriptions
- Create example prescriptions with missing information. Ask the trainee to identify the additional information needed to fill the prescription.
- Create example prescriptions and ask the trainee to interpret the sig codes.

Chapter VI: Pharmacy Calculations
- Pull prescription stock bottles, creams, and liquids from the shelves. Ask the trainee to identify units of measurement.
- Practice each type of pharmacy calculation with the trainee.

Chapter VII: Patient Interaction
- Act out examples of situations with difficult patients, barriers to communication, and special populations. Offer tips on handling these challenging situations.

Chapter VIII: An Overview of Federal Privacy Requirements
- Obtain a sample of a labeled prescription vial. Ask the trainee to identify the PHI on the label and explain how to dispose of the labeled vial.
IMPLEMENTATION STRATEGIES (CONTINUED)

Active Instructional Strategies for Educators (CONTINUED)

Chapter IX: The Dispensing Process
- Create example prescriptions that the technician would take in at the pharmacy drop off window. The trainee should practice what questions to ask the patient.
- Set up counting trays and spatulas for trainees to count candies and place in prescription bottles.
- Have the trainee practice labeling prescription bottles with printed pharmacy and auxiliary labels.
- Practice measuring water in a graduated cylinder and reading the meniscus.

Chapter X: Managed Care Prescriptions
- Review important policy information necessary for pharmacy billing on a health insurance card.

Chapter XI: Non-Dispensing Duties
- Review the process of ordering for the pharmacy, names of wholesalers the pharmacy uses, and when shipments are received. Explain that department duties shift due to deliveries and restocking.

Chapter XII: Drug and Medical Terminology
- Create a sample SOAP note, and ask the trainee to interpret the abbreviations used.

Chapter XIII: Basic Anatomy and Physiology
- Briefly discuss each anatomy system, and give an example of a medication that can be used to treat issues in each system.

Chapter XIV: Common Disease States
- Note the most common medications for each indication the pharmacy dispenses on a regular basis.

Chapter XV: Basic Pharmacology
- Obtain a package insert, and show the trainee an example of a chemical structure.

Chapter XVI: Over-the-Counter (OTC) Medications
- Discuss different OTC medications that are available and locations of the items in the pharmacy.
Active Instructional Strategies for Educators (continued)

Chapter XVII: Unit Dose Systems and Drug Repackaging
- Demonstrate use of compliance aids (dosage spoons, cutter, droppers, daily dose planners).

Chapter XVIII: Non-Sterile Product Compounding
- Demonstrate how to use a balance to weigh a medication.
- Use a small portion of flour and petroleum jelly. Instruct the trainee on how to compound the two ingredients together, place in a vial, and label.
- Show the trainee equipment used in compounding (spatula, weighing paper, mortar and pestle).

Chapter XIX: Sterile Product Compounding and USP Chapter 797
- Demonstrate the proper technique for drawing saline up into a syringe. Demonstrate how to read calibration marks on the syringe.

Active Instructional Strategies for Students
- Read the chapters one at a time in the order presented.
- Take notes and ask questions.
- Use the learning objectives, sample questions, and assessment statements.
- Refer to store policy and procedure manuals.
- Use the glossary.
- Review information on a regular basis.

PRODUCT SUPPORT
At ATI Allied Health, we pride ourselves on timely, effective support to meet your needs. Please contact us at 800-499-9092 if you need assistance with this product.

TECHNICAL REQUIREMENTS
For optimal testing experience, we recommend a wired network connection. Full system requirements are available at http://www.atialliedhealth.com/TechnicalRequirements.aspx.