

CHAPTER 2

The Professional Pharmacy Technician

CHAPTER SPOTLIGHT

Pharmacy technicians are health care professionals working within one of the most trusted professions in America. Pharmacy technicians achieve this trusted status by maintaining specific competencies, achieving specialized training, and exhibiting key personal characteristics. The competencies, requirements, work settings, behaviors, and professional organizations associated with the pharmacy technician profession are discussed in this chapter.

RESOURCES

- Instructor Resource Manual
- PowerPoint slides for Chapter 2
- Textbook
- Student workbook/lab manual

PRETEST

True or False Questions

1. Pharmacy technicians may work in such fields as nuclear medicine, research and development, and sales.

TRUE

2. A candidate with a prior felony conviction may sit for the Exam for the Certification of Pharmacy Technicians, but may not sit for the Pharmacy Technician Certification Exam.

FALSE: Candidates with prior felony convictions cannot sit for either exam.

3. The terms *compassion* and *empathy* are interchangeable.

FALSE: *Compassion* is sympathy for another person’s suffering; *empathy* is sympathy for another person’s feelings or situation.

4. The term *attire* includes gloves, face masks, and shoe covers.

TRUE

5. The abbreviation *PhD* stands for “Pharmacy Doctorate.”

FALSE: The abbreviation PhD refers to “Doctor of Philosophy”; the abbreviation for “Doctor of Pharmacy” is “PharmD.”

LEARNING OBJECTIVE LESSON PLANS

Lesson #1	Education and Licensure
OBJECTIVE	LESSON PLAN
<ul style="list-style-type: none"> • Summarize the educational requirements and competencies of both pharmacists and pharmacy technicians. • Explain the registration/licensure and certification process for 	<ul style="list-style-type: none"> • Figure 2-1 A pharmacist in a hospital setting often advises other medical personnel or monitors patient drug regimens. Source: Michal Heron/Pearson Education/PH College • Overview of the Pharmacy Profession <ul style="list-style-type: none"> ○ Profession <ul style="list-style-type: none"> ▪ An occupation that requires advanced education and training ○ Pharmacy <ul style="list-style-type: none"> ▪ Evolved from the profession of medicine ▪ Is the profession of preparing and dispensing medications, as well as supplying drug-related information to patients and consumers • Textbook pages: 14–17, 22–25 • Online access for Classroom Activity 2

<p>becoming a pharmacy technician.</p>	<p>Classroom Activity 1:</p> <p>Have students design flowcharts that show certification and licensure pathways. Be sure they include eligibility and renewal requirements for each credentialing organization. Flowcharts and other schedules help students understand complicated procedures and timelines.</p> <p>Classroom Activity 2:</p> <p>In a classroom with online access, have students research the requirements for registration or licensure within their state. Have them examine requirements for adjacent states. Searching for and understanding state laws helps students prepare for their professional work.</p> <p>Teaching Tips:</p> <p>Bring in a guest speaker. A working pharmacist or pharmacy technician can talk about obtaining a professional degree, and what it is like to work in a pharmacy. Real-world experiences help students connect to their current program of study, and</p>
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	<p>create interest in completing their education.</p> <p>Instructor Notes:</p> <p>Independent Practice/Homework Assignment:</p> <ul style="list-style-type: none"> • Write a one-paragraph response to Critical Thinking Question 1. • Complete questions and activities in Workbook/Lab Manual Chapter 2.
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Lesson #2	Pharmacy Settings
OBJECTIVE	LESSON PLAN
<ul style="list-style-type: none"> • Describe the two primary pharmacy practice settings and define the basic roles of pharmacists and pharmacy technicians working in each setting. 	<ul style="list-style-type: none"> • Overview of the Pharmacy Profession <ul style="list-style-type: none"> ○ Direct patient care <ul style="list-style-type: none"> ▪ Includes many aspects of the health care of a patient, including: <ul style="list-style-type: none"> • providing pharmaceutical care • counseling • patient education • even administration of medication, such as immunizations • Qualifications and Educational Requirements <ul style="list-style-type: none"> ○ Pharmacist <ul style="list-style-type: none"> ▪ After 2000, doctor of pharmacy (PharmD) degree is required. ▪ Requires minimum of six years of college ▪ At least two years of prepharmacy study ▪ Four years of study at an accredited college of pharmacy ▪ Postgraduate internship at local pharmacy under supervision of a licensed pharmacist ▪ Must pass the North American

	<p>Pharmacist Licensure Examination (NAPLEX) and in most states a drug law exam, such as the Multistate Pharmacy Jurisprudence Examination (MPJE)</p> <ul style="list-style-type: none"> ▪ Licensed by their State Board of Pharmacy <ul style="list-style-type: none"> • Figure 2-2 Trained or certified pharmacy technicians may prepare sterile products. Source: Edwige/Science Source • Qualifications and Educational Requirements <ul style="list-style-type: none"> ○ Pharmacist technician <ul style="list-style-type: none"> ▪ Formal education requirements, competency exams, and registration with a State Board of Pharmacy are progressively replacing on-the-job training ▪ Most states require (at minimum) a high school diploma or GED; age 18+; no history of felonies or drug-related misdemeanors ▪ Same qualifications for the national certification exams • Qualifications and Educational Requirements <ul style="list-style-type: none"> ○ American Society of Health-System Pharmacists (ASHP) accredits pharmacy technician training programs. <ul style="list-style-type: none"> ▪ Voluntary in most states ▪ Benchmark for standardized pharmacy technician curriculum and program guidelines • Roles of Pharmacy Professionals <ul style="list-style-type: none"> ○ Pharmacists <ul style="list-style-type: none"> ▪ Primarily, dispense medications prescribed by authorized medical professionals ▪ Provide vital information to patients about medications and their use ▪ Also monitor patient health/progress in response to drug therapy ○ Pharmacists in ambulatory (community-based) pharmacy <ul style="list-style-type: none"> ▪ Counsel patients on over-the-counter remedies ▪ Answer questions pertaining to
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	<p>possible side effects or interactions among various drugs</p> <ul style="list-style-type: none"> ○ Pharmacists in ambulatory (community-based) pharmacy <ul style="list-style-type: none"> ▪ Recommend over-the-counter drugs and medical devices ▪ May provide specialized services or administer vaccines ○ Pharmacists in health-system pharmacy <ul style="list-style-type: none"> ▪ Prepare and dispense medications for individual patients ▪ Advise physicians and medical staff about preferred drugs for certain indications ▪ Assess, plan, and monitor drug regimens ▪ Evaluate drug-use patterns and outcomes for patients ○ Pharmacy technicians <ul style="list-style-type: none"> ▪ Assist pharmacists to provide pharmaceutical care ▪ Perform routine tasks such as computer entry, medication preparation/selection, counting, and labeling ▪ Refer patient questions regarding prescriptions, drug information, or related health matters to the pharmacist ○ Pharmacy technicians in ambulatory (community) pharmacy <ul style="list-style-type: none"> ▪ Create and maintain patient profiles ▪ Handle insurance and third-party billing ▪ Manage inventory ○ Pharmacy technicians in health-system pharmacy <ul style="list-style-type: none"> ▪ Review patient charts ▪ Prepare and deliver medications to nursing stations ○ Pharmacy technicians in health-system pharmacy <ul style="list-style-type: none"> ▪ Perform unit-dose packaging ▪ If trained/certified to do so, prepare sterile materials such as intravenous
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	<p>(IV) antibiotics and chemotherapy products</p> <ul style="list-style-type: none"> • Figure 2-3 An ambulatory (community) pharmacy. • Practice Settings <ul style="list-style-type: none"> ○ Ambulatory or community-based pharmacies <ul style="list-style-type: none"> ▪ Include chain retail drugstores, grocery store pharmacies, and mail-order facilities • Practice Settings <ul style="list-style-type: none"> ○ Ambulatory or community-based pharmacies <ul style="list-style-type: none"> ▪ Varying hours of operation ▪ Privately owned pharmacies may be open on weekdays only. ▪ Chain retail pharmacies may be open seven days a week. ▪ Some chain retail pharmacies may be open 24 hours a day, seven days a week. • Figure 2-4 An institutional (health-system) pharmacy. Source: Matthew Borkoski/Getty • Practice Settings <ul style="list-style-type: none"> ○ Health-System or institutional pharmacies <ul style="list-style-type: none"> ▪ Found in places such as hospitals, long-term-care facilities, extended-living facilities, and retirement homes ▪ Typically open 24 hours a day, seven days a week • Characteristics of a Good Pharmacy Technician <ul style="list-style-type: none"> ○ Possess wide range of knowledge and skills ○ Comply with written procedures and guidelines ○ Quality and accuracy ○ High ethical standards ○ Display a professional manner and image • Display a Professional Manner and Image <ul style="list-style-type: none"> ○ "If you aren't managing your own professional image, others are." ○ Patients, customers, coworkers, and managers use personal image to evaluate individual competence, character, and commitment. ○ Attitude, attire, and grooming are some of the key factors in personal image.
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- Textbook pages: 17–18
- Use of a local pharmacy, either ambulatory or health-system (or possibly both), for Classroom Activity 2

Note: This lesson plan will require two days to complete if both classroom activities are used.

Classroom Activity 1:

Use group role-playing. Break the class into four equal groups, each group taking one of the following roles: ambulatory pharmacy staff, health-system pharmacy staff, walk-in community pharmacy customers, and medical staff at a hospital. Pharmacy staff must act according to their appropriate settings. Customers and medical staff must interact and challenge pharmacy staff with unique problems (some predetermined by instructor, others may be student choice). Instructors should give predetermined problems to staff in private. Examples of problems may include

a doctor trying to find a missing prescription; a walk-in customer with questions about flu vaccinations; a nurse whose patient has received the wrong medication; and a walk-in customer wanting a renewal on prescription medication three weeks before the expected refill date. Once the groups have finished role-playing, swap all groups according to the following diagram:

- Ambulatory pharmacy staff become medical staff at a hospital.
- Health-system pharmacy staff become walk-in community pharmacy customers.
- Walk-in community pharmacy customers become health-system pharmacy staff.
- Medical staff at a hospital become ambulatory pharmacy staff.

After this second round of role-playing, hold a class discussion on the challenges of and competencies needed for each setting.

Classroom Activity 2:

Prepare a field trip. Contact an ambulatory or health-system pharmacy (or both) and arrange a walk-

	<p>through for the class. Given advance preparation, a member of the pharmacy staff should be available to talk about some of the challenges and advantages of that particular setting. Being able to experience a specific workplace firsthand helps create valuable context for students.</p> <p>Teaching Tips:</p> <p>Use role-playing to create authentic experiences.</p> <p>Role-playing in a classroom or other controlled environment helps create context and can help the instructor demonstrate specific points that would be difficult to describe or explain in a lecture. Role-playing also helps students synthesize information learned in previous lectures.</p> <p>Instructor Notes:</p> <p>Independent Practice/Homework Assignment:</p> <ul style="list-style-type: none"> • Complete all Chapter Review Questions. • Complete questions and activities in Workbook/Lab Manual Chapter 2.
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Lesson #3	Education and Licensure
OBJECTIVE	LESSON PLAN

<ul style="list-style-type: none"> • Explain six specific characteristics of a good pharmacy technician. • Demonstrate the behavior of a professional pharmacy technician. 	<ul style="list-style-type: none"> • Figure 2-5 Displaying a positive attitude, in direct contact with customers, with coworkers, or while on the telephone, demonstrates your professionalism as a pharmacy technician. Source: Michal Heron/Pearson Education/PH College • Display a Professional Manner and Image <ul style="list-style-type: none"> ○ Attitude is a psychological concept. <ul style="list-style-type: none"> ▪ Body language and expression reveal more and are more powerful than verbal communication. ▪ Tips on creating a positive attitude <ul style="list-style-type: none"> • Create a "can-do" mindset. • Approach and respond to others in a pleasant and upbeat manner. • Maintain enthusiasm despite criticism. • Express support, loyalty, and appreciation. • Demonstrate an "I care" policy. • Figure 2-6 The attire and protective equipment you use on the job depends on your job function and the practice setting in which you work. Source: Edwige/Science Source • Display a Professional Manner and Image <ul style="list-style-type: none"> ○ Attire: The white lab coat serves two roles. <ul style="list-style-type: none"> ▪ Function: provides numerous, spacious pockets for storing needed tools; protects clothing from liquid medications, ointments, and chemicals ▪ Image: provides immediate recognition as health care staff; the public has unspoken expectation that a person wearing a lab coat is knowledgeable and trustworthy ○ Attire: business dress <ul style="list-style-type: none"> ▪ Above business-casual standards <ul style="list-style-type: none"> • Men: slacks or dress pants, button-down shirt, tie • Women: slacks, conservative skirts, blouses, shells,
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	<ul style="list-style-type: none"> <ul style="list-style-type: none"> cardigans, or dresses <ul style="list-style-type: none"> ▪ Predominately used in retail and ambulatory pharmacies, or by health-system pharmacy managers ○ Attire: medical scrubs <ul style="list-style-type: none"> ▪ Medical uniform consisting of a loose pullover top and pants ▪ Pharmacy typically predetermines color required ▪ Predominately used in health-system pharmacies ○ Grooming <ul style="list-style-type: none"> ▪ Pharmacy professionals represent both their employer and the profession in the eyes of patients and customers, so it is important to use good judgment and good habits in grooming and personal hygiene. ▪ Hair should be kept neat, clean, and professional; coloring should appear natural. ▪ Men should be kept clean shaven, or maintain a neat, trimmed mustache/beard. ▪ Makeup should be used in moderation and maintain a natural skin color. ▪ Fingernails should be kept trimmed and clean. ▪ Piercings/tattoos should not be visible. ▪ Perfume/cologne should be used sparingly or avoided. ● Be Trustworthy and Confidential <ul style="list-style-type: none"> ○ National surveys show pharmacy is among the most trusted professions. ○ Deserve your patients' trust. ○ Maintain confidentiality. ○ Health Insurance Portability and Accountability Act (HIPAA) ○ Tips <ul style="list-style-type: none"> ▪ Always be truthful and honest, especially when you make a mistake. ▪ Be reliable and accountable; keep your promises.
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	<ul style="list-style-type: none"> ▪ Remember that open and honest dialogue is reciprocated. ▪ Safeguard the privacy of your patients and information. ▪ Treat others and their personal information as you would desire to be treated. ▪ Study HIPAA privacy laws carefully to make sure you are fully informed of your responsibilities and liabilities. ▪ Never make assumptions regarding who may or may not have access to privileged and confidential information. ▪ Always err on the side of caution when handling confidential information. ▪ When in doubt, ask the pharmacist or pharmacy manager before taking action, sharing information or making comments. <ul style="list-style-type: none"> • Demonstrate Initiative and Responsibility <ul style="list-style-type: none"> ○ Use professional resources and references effectively. ○ Anticipate problems and develop solutions in advance. ○ Become a valuable resource through personal research, knowledge, and networking. ○ Brainstorm and suggest innovative ideas and solutions. ○ Follow through on all promises and commitments. ○ Take full responsibility for mistakes made and learn from them. ○ Four basic steps to problem solving <ul style="list-style-type: none"> ▪ Understand the problem ▪ Devise a solution ▪ Carry out the solution ▪ Review the outcomes • Work as a Team Member <ul style="list-style-type: none"> ○ The efficiency of a pharmacy depends directly on the effectiveness of its team. ○ Pharmacist-in-charge or pharmacy manager is the team leader.
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	<ul style="list-style-type: none"> ○ Teamwork tips <ul style="list-style-type: none"> ▪ You are an integral part of the team, not above nor below it. ▪ Build positive working relationships with all pharmacy staff members. ▪ Share information, knowledge, and experience openly with your coworkers. ▪ Cooperate with other staff members to achieve desired outcomes. ▪ Be open to feedback from your coworkers and provide feedback when appropriate. ▪ Work to remove any barrier to your team's effectiveness. ○ Tips to build consensus <ul style="list-style-type: none"> ▪ Always look for areas of agreement. ▪ Develop genuine relationships with coworkers. ▪ Listen more than you speak. ▪ Support and reinforce positive actions, behaviors, mindsets. ▪ Never make assumptions or judge others. ● Adapt to Change <ul style="list-style-type: none"> ○ The practice of pharmacy is in a constant state of evolution and change. ○ As new drugs are approved and technological advancements are implemented, scope and standards of pharmacy practice change. ○ Tips for demonstrating adaptability <ul style="list-style-type: none"> ▪ Be flexible. ▪ View changes as progress or improvement. ▪ Adapt attitudes and behavior to work effectively with different people and situations. ▪ Accept and learn to work with changing priorities, strategies, procedures, and methods. ▪ Maintain work effectiveness in new or changing situations. ▪ Handle pressure and stress properly. ● Be Knowledgeable
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	<ul style="list-style-type: none"> ○ Pharmacy information is constantly changing. <ul style="list-style-type: none"> ▪ New drugs, indications, drug recalls, best practices, or regulations are always being introduced. ○ Journey of learning will never cease. ○ Tips to be well-informed <ul style="list-style-type: none"> ▪ Learn the Top 200 Drugs and keep a pocket reference guide. ▪ Subscribe to and read industry trade journals. ▪ Attend pharmacy conferences. ▪ Continuing education programs ▪ Join a professional organization. ● Remember Compassion and Empathy <ul style="list-style-type: none"> ○ Compassion: deep awareness of and sympathy for another's suffering ○ Empathy: feeling of concern and understanding for another's situation or feelings ○ Patients are frequently sick or in pain, seeking relief or treatment for illness, disease, or other medical condition. ○ Treat all people with dignity and respect. ○ Be considerate, caring, and kind. ○ Focus your efforts on helping the patient. ○ Be understanding and forgiving of the patients' behaviors/attitude. ○ Assume the best about others. ○ Try to imagine yourself in the patient's situation. ● Preparing for Your Future as a Pharmacy Technician <ul style="list-style-type: none"> ○ Registration <ul style="list-style-type: none"> ▪ The process of listing or being named to a list ○ Licensing <ul style="list-style-type: none"> ▪ Permission from government entity for an individual to perform an activity, meeting certain standards designed to protect the public ○ Certification <ul style="list-style-type: none"> ▪ Recognition from nongovernmental agency that individual has met required levels of competency
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	<ul style="list-style-type: none"> • Registration/Licensure for the Pharmacy Technician <ul style="list-style-type: none"> ○ Most states require pharmacy technicians to be registered or licensed by the State Board of Pharmacy (SBOP) <ul style="list-style-type: none"> ▪ Regulations/requirements vary by state but typically include: <ul style="list-style-type: none"> • High school graduate or GED equivalent • Age 18+ • No felony conviction(s) • Formal education or training as a pharmacy technician • SBOP competency exam • Certification • Certification for the Pharmacy Technician <ul style="list-style-type: none"> ○ Certification verifies that a candidate has met the agency's or board's standards for skills and knowledge necessary to practice. ○ Signifies a certain level of competence • Pharmacy Technician Certification Board (PTCB) <ul style="list-style-type: none"> ○ Pharmacy Technician Certification Board (PTCB) ○ Based in Washington, D.C. <ul style="list-style-type: none"> ▪ Founded in 1995 ▪ The standard in national certification for pharmacy technicians • ExCPT Certification Exam <ul style="list-style-type: none"> ○ Exam for the Certification of Pharmacy Technicians (ExCPT) <ul style="list-style-type: none"> ▪ Developed by the Institute for the Certification of Pharmacy Technicians (ICPT) and is now a part of the National Healthcareer Association (NHA) ▪ Accredited by the National Commission for Certifying Agencies (NCCA) ▪ Endorsed by the National Community Pharmacists Association and the National Association of Chain Drug Stores ○ Computerized exam offered at 600+ PSI Testing Centers throughout United States
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	<ul style="list-style-type: none"> ○ Measures three areas of competence <ul style="list-style-type: none"> ▪ Regulations and technician duties ▪ Drugs and drug products ▪ The dispensing process ○ Recertification required every two years ● Pharmacy Technician Certification Exam (PTCE) <ul style="list-style-type: none"> ○ Offered by PTCB ○ Accredited by NCCA and nationally recognized/endorsed by the National Association of Boards of Pharmacy, the American Pharmacists Association, and the American Society of Health-System Pharmacists ○ Officially recognized 44 State Boards of Pharmacy ○ Computerized exam offered at 220+ Pearson VUE Testing Centers ○ Nine knowledge areas <ul style="list-style-type: none"> ▪ Pharmacology for Technicians ▪ Pharmacy Law and Regulations ▪ Sterile and Nonsterile Compounding ▪ Medication Safety ▪ Pharmacy Quality Assurance ▪ Medication Order Entry and Fill Process ▪ Pharmacy Inventory Management ▪ Pharmacy Billing and Reimbursement ▪ Pharmacy Information Systems Usage and Application ○ Recertification required every two years ● Continuing Education Resources <ul style="list-style-type: none"> ○ Numerous continuing education (CE) program designed for pharmacy technicians exist. ○ The American Council on Pharmacy Education (ACPE) accredits organizations as approved providers of continuing pharmacy education. ○ Continuing education requirements vary by state. ● Specialized Certifications <ul style="list-style-type: none"> ○ National Pharmacy Technician Association (NPTA) offers advanced certificate programs in:
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	<ul style="list-style-type: none"> ▪ sterile products/IV certification ▪ chemotherapy certification ▪ nonsterile/extemporaneous compounding certification • Professional Organizations <ul style="list-style-type: none"> ○ Membership benefits include: <ul style="list-style-type: none"> ▪ Continuing education ▪ Professional development ▪ Information, research, and statistics ▪ Professional standards ▪ Networking ▪ Advocacy ▪ Professional recognition ○ Pharmacy technicians can join: <ul style="list-style-type: none"> ▪ American Association of Pharmacy Technicians (AAPT) ▪ American Pharmacists Association (APhA) ▪ American Society of Health-System Pharmacists (ASHP) ▪ National Pharmacy Technician Association (NPTA) • Career Opportunities <ul style="list-style-type: none"> ○ Pharmacy technician <ul style="list-style-type: none"> ▪ Among the best career opportunities not requiring a college degree ▪ One of the 100 fastest-growing jobs in the United States and one of the 500 best jobs (NPTA) ▪ U.S. Bureau of Labor Statistics predicts annual job growth rate of 31% (99,800 new positions 2008–2018). ○ Numerous career-path options for pharmacy technicians, including: <ul style="list-style-type: none"> ▪ Clinical practice ▪ Compounding ▪ Nuclear medicine ▪ Training/education ▪ Management ▪ Sales ▪ Research and development ▪ Consulting • Summary <ul style="list-style-type: none"> ○ The pharmacy profession includes both
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- pharmacists and pharmacy technicians.
- The professional pharmacy technician
 - Maintains a proper image
 - Is responsible and a team player
 - Adapts quickly and appropriately to change
 - Seeks continuing education and development
 - Demonstrates compassion
 - Preparing for your future as a pharmacy technician includes:
 - formal education and training
 - registration/licensure
 - national certification
 - involvement with a professional organization

- Textbook pages: 18–22
- Prepared notecards for Classroom Activity 1

Classroom Activity 1:

Prepare a collection of notecards. Each notecard should provide either a positive characteristic, or an example of poor behavior tied to a characteristic. A simple example is: “Janet has an opportunity to attend a free CPR class on Saturday. Her current CPR card does not expire for another three months, so she decides to delay renewing until a more convenient time”; this could demonstrate poor behavior: Janet has failed to

enhance her skills and knowledge through continuing education and professional development. Alternately, have students role-play the kind of activities and characteristics—positive or negative—described on the cards.

Classroom Activity 2:

Either or both of the following scenarios may be used.

- Invite selected students to act as challenging coworkers or patients. Role-play the part of a good pharmacy technician and use these mini-scenarios to illustrate specific points.
- Invite selected students to act as pharmacy technicians. Role-play the part of a challenging patient and observe student behavior and reaction.

Teaching Tips:

Use role-playing to create authentic experiences.

Role-playing in a classroom or other controlled environment helps create context and can help the instructor demonstrate specific points that would be difficult to describe or explain in a lecture. Role-playing also helps students synthesize information learned in previous lectures.

	<p>Instructor Notes:</p> <p>Independent Practice/Homework Assignment:</p> <ul style="list-style-type: none">• Write a one-paragraph response to Critical Thinking Questions 2 and 3.• Complete one of the Web Challenge exercises, and write a one-paragraph summary.
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LEARNING OBJECTIVE 1

Summarize the educational requirements and competencies of both pharmacists and pharmacy technicians.

Concepts for Lecture

Because they work with potentially hazardous and addictive substances, both pharmacists and pharmacy technicians must have precise, formal, technical education for licensure and certification. Both professions require continuing education, attention to detail, and the ability to work under pressure.

PowerPoint Lecture Slides

2. Use slide of Figure 2-1, “A pharmacist in a hospital setting often advises other medical personnel or monitors patient drug regimens,” from the textbook

5-7. Pharmacist education

- Graduate with a doctor of pharmacy (PharmD) degree
- Requires a minimum of six years of college
 - At least two years of pre-pharmacy study

- Four years of study at an accredited college of pharmacy
- Requires postgraduate internship at local pharmacies under the supervision of a licensed pharmacist
- Must pass State Board of Pharmacy exam to practice within that state
- Must register with State Board of Pharmacy to practice within that state

8. Use slide of Figure 2-2, “Trained or certified pharmacy technicians may prepare sterile products,” from the textbook

9-11. Pharmacy technician education

- On-the-job training (OJT) was formerly an acceptable practice.
- OJT being replaced with:
 - Formal, accredited education
 - State Board examination
 - Registration with State Board

LEARNING OBJECTIVE 2

Describe the two primary pharmacy practice settings and define the basic roles of pharmacists and pharmacy technicians working in each setting.

Concepts for Lecture

Pharmacies are distinguished by type of patient and institutional setting: whether patients arrive from or have medications delivered off site (ambulatory), or must remain on site (health-system). Ambulatory pharmacies are primarily commercial institutions, whereas health-system pharmacies are noncommercial in the sense that they are not open to the public at large, and serve a specific, in-house clientele. Core responsibilities

such as dispensing medication and answering questions do not change with setting; however, each setting does have unique responsibilities based on the needs of the patients and the kind of business (for-profit/not-for-profit) being engaged in.

PowerPoint Lecture Slides

21. Use slide of Figure 2-3, “An ambulatory (community) pharmacy,” from the textbook.

22-23. Ambulatory pharmacies

- Community-based pharmacies
- Include chain retail drugstores, grocery store pharmacies, and mail-order facilities
- Varying hours of operation
 - Privately owned pharmacies may be open on weekdays only.
 - Chain retail pharmacies may be open seven days a week.
 - Some chain retail pharmacies may be open 24 hours a day, 7 days a week.

24. Use slide of Figure 2-4, “An institutional (health-system) pharmacy,” from the textbook.

25. Health-system pharmacies

- Institutional pharmacies
- Found in places such as hospitals, long-term-care facilities, extended-living facilities, and retirement homes
- Typically open 24 hours a day, 7 days a week

12. Pharmacist roles

- Primarily dispense medications prescribed by authorized medical professionals
- Provide vital information to patients about medications and their use
- Also monitors patient health/progress in response to drug therapy

13-14. Pharmacist role in ambulatory pharmacy

- Counsel patients on over-the-counter remedies
- Answer questions pertaining to possible side effects or interactions among various drugs
- Recommend over-the-counter drugs and medical devices
- May provide specialized services or administer vaccines

15-16. Pharmacist role in health-system pharmacy

- Prepare and dispense medications for individual patients.
- Advise physicians and medical staff about preferred drugs for certain indications.
- Assess, plan, and monitor drug regimens.
- Evaluate drug-use patterns and outcomes for patients.

17. Pharmacy technician roles

- Assist pharmacists to provide pharmaceutical care.
- Perform routine tasks such as computer entry, medication preparation/selection, counting, and labeling.
- Refer patient questions regarding prescriptions, drug information, or related health matters to the pharmacist.

18. Pharmacy technician role in ambulatory pharmacy

- Create and maintain patient profiles.

- Handle insurance and third-party billing.
- Manage inventory.

119-21. Pharmacy technician role in health-system pharmacy

- Review patient charts.
- Prepare and deliver medications to nursing stations.
- Perform unit-dose packaging.
- If trained/certified to do so, prepare sterile materials such as IV antibiotics and chemotherapy products.

LEARNING OBJECTIVE 3

Explain six specific characteristics of a good pharmacy technician.

Concepts for Lecture

Review the characteristics of a good pharmacy technician and refer to the corresponding PowerPoint slides (listed following) for definitions of those characteristics.

PowerPoint Lecture Slides

28. Display a professional manner and image.

- Patients, customers, coworkers, and managers use your personal image to evaluate your individual competence, character, and commitment.
- Attitude, attire, and grooming are the key factors in personal image.

29. Use slide of Figure 2-5, "Displaying a positive attitude, whether in direct contact with customers, with coworkers, or while on the telephone, demonstrates your professionalism as a pharmacy technician," from the textbook.

30-31. Attitude is a psychological concept.

- Attitude is tied to body language and the expression of actions or moods.
- Body language reveals more and is more powerful than verbal communication.
- Following are tips on creating a positive attitude:
 - Create a “can-do” mindset.
 - Approach and respond to others in a pleasant and upbeat manner.
 - Maintain enthusiasm despite criticism.
 - Express support, loyalty, and appreciation.

32. Use slide of Figure 2-6, “The attire and protective equipment you use on the job depends on your job function and the practice setting in which you work,” from the textbook.

34. Attire affects function and image.

- Attire used on the job depends on job function and practice setting
- The white lab coat
- Business dress

35. White lab coat

- Function: The white lab coat provides numerous, spacious pockets for storing needed tools.
- Function: It protects clothing from liquid medications, ointments, and chemicals.
- Image: It provides immediate recognition as health care staff.
- Image: The public has an unspoken expectation that a person wearing a lab coat is knowledgeable and trustworthy.

35. Business dress

- Pharmacy personnel are expected to dress above business-casual standards.
- Men: slacks or dress pants, button-down shirt, tie.
- Women: slacks, conservative skirts, blouses, shells, cardigans, or dresses.
- Predominately used in retail and ambulatory pharmacies, or by health-system pharmacy managers.

36. Medical scrubs

- Medical uniform consisting of a loose pullover top and pants.
- Pharmacy typically predetermines color required.
- Predominately used in health-system pharmacies.

37. Grooming

- Conservative grooming, including these items list below, is preferred for all medical professions:
 - Hair style
 - Facial hair
 - Makeup
 - Perfume/cologne
 - Jewelry
 - Tattoos and body piercings

38-39. Proper grooming

- Hair should be kept neat, clean, and professional; coloring should appear natural.
- Men should be clean shaven, or maintain a neat, trimmed mustache/beard.

- Makeup should be used in moderation and a natural skin color maintained.
- Fingernails should be kept trimmed and clean.
- Piercings/tattoos should not be visible.
- Perfume/cologne should be used sparingly or avoided.

44-46. Demonstrate initiative and responsibility.

- Demonstrating initiative
 - Anticipate problems and develop solutions in advance.
 - Brainstorm and suggest innovative ideas and solutions.
- Demonstrating responsibility
 - Follow through on all promises and commitments made.
 - Take full responsibility for mistakes made and learn from them.

47-50. Work as a team member.

- The efficiency of a pharmacy directly correlates to the effectiveness of its team:
 - Build positive working relationships with all pharmacy staff members.
 - Share information, knowledge, and experience openly with your coworkers.
 - Cooperate with other staff members to achieve desired outcomes.

51-53. Adapt to change.

- The practice of pharmacy is in a constant state of evolution and change.
- New drugs are routinely approved and technological advancements are implemented.

- As the scope and standards of pharmacy practice change, pharmacy technicians must anticipate changes with a positive attitude and a readiness to adapt:
 - Accept changing priorities, strategies, procedures, and methods.
 - View changes as progress or as improvements.
 - Maintain work effectiveness in new or changing situations.

54-55. Enhance skills and knowledge through continuing education and professional development.

- The practice of pharmacy is in a constant state of change:
 - Every year, new drugs become approved.
 - Every year, new generics become available.
 - Every year, new indications are issued.
 - Every year, new over-the-counter remedies are developed.
- Pharmacy professionals are required to undergo continuing education programs:
 - Read trade journals.
 - Belong to professional organizations.
 - Attend pharmacy seminars and conferences.

56. Treat patients with compassion and empathy.

- Compassion is a deep awareness of and sympathy for another's suffering.
- Pharmacy professionals serve patients who may be sick and/or have pain.
- Empathy is a feeling of concern and understanding for another's situation or feelings.

- With few exceptions, patients are seeking relief or treatment for an illness, disease, or other medical condition.

57-58. Some points to keep in mind:

- Treat all people with dignity.
- Focus your efforts on helping the patient.
- Be understanding and forgiving of the patient's behaviors/attitude.
- Try to imagine yourself in the patient's situation.

LEARNING OBJECTIVE 4

Demonstrate the behavior of a professional pharmacy technician.

Concepts for Lecture

Invite a guest speaker who embodies the six characteristics of a good pharmacy technician. Ask this speaker to talk about some of the challenges of maintaining a professional image, seeking continuing education, having empathy, and so on. Or, if you have professional experience in this capacity, have an informal "storytelling" discussion. Firsthand experiences are interesting to students, may ease anxiety and build confidence, and often build rapport between instructor and student.

PowerPoint Lecture Slides

Use the same slides as for Learning Objective 3.

LEARNING OBJECTIVE 5

Explain the registration/licensure and certification process for becoming a pharmacy technician.

Concepts for Lecture

Registration and licensure are functions of national or state government. National and State Boards of Pharmacy protect the public within their domain by requiring a prospective professional to complete certain, specific steps that establish proof of competence. Registration and licensure therefore protect the public from incompetent or negligent operators. Each state varies with regards to registration versus licensure, as well as baseline eligibility requirements for either. Certification is a function of a nongovernmental, professional organization. Professional organizations typically offer certification under the direction of national or state boards; certification is often one of the steps required for state registration or licensure.

PowerPoint Lecture Slides

59. Registration/licensure for the pharmacy technician

- Most states require pharmacy technicians to become registered or licensed with the State Board of Pharmacy.
- Common eligibility requirements include the following:
 - High school graduate or GED equivalent
 - No felony conviction(s)
 - Formal education or training as a pharmacy technician
 - Passage of State Board of Pharmacy competency exam
 - Certification
- Regulations and requirements vary by state

60. Certification for the pharmacy technician

- Certification verifies that a candidate has met state board standards necessary to practice
- Signifies a certain level of competence

65. Pharmacy Technician Certification Board (PTCB)

- Based in Washington, D.C.
- Founded in 1995
- The standard in national certification for pharmacy technicians
- Offers the Pharmacy Technician Certification Exam (PTCE)

69-71. Pharmacy Technician Certification Exam (PTCE)

- Nationally recognized/endorsed by the National Association of Boards of Pharmacy, the American Pharmacists Association, and the American Society of Health-System Pharmacists
- Officially recognized by more than 25 individual State Boards of Pharmacy
- Awards the title Certified Pharmacy Technician (CPhT), a registered trademark of PTCB
- Renewal of certification, or recertification, required every two years

66. Institute for the Certification of Pharmacy Technicians (ICPT)

- Based out of St. Louis, MI
- Offers the Exam for the Certification of Pharmacy Technicians (ExCPT)

66-68. Exam for the Certification of Pharmacy Technicians (ExCPT)

- Nationally recognized

- Endorsed by the National Community Pharmacists Association and the National Association of Chain Drug Stores
- Officially recognized for registration/licensure eligibility by the State Boards of Pharmacy in Connecticut, New Jersey, Minnesota, Oregon, and Virginia
- Renewal of certification, or recertification, required every two years

ANSWERS TO END-OF-CHAPTER TEXTBOOK QUESTIONS

Chapter Review Questions

1. d
2. c
3. d
4. d
5. a
6. c
7. b
8. a
9. c
10. a

Critical Thinking Questions

1. It is critical that both pharmacists and pharmacy technicians have specific competency requirements and roles so that they are able to work together in providing effective pharmaceutical care to patients. Pharmacists and technicians work together as a team; however, their roles are differentiated based on their knowledge and skills.
2. Answers will vary.

3. One of the reasons that pharmacy has consistently ranked as the most trusted profession is its perception of being free from bias and commercialization.

Profile in Practice

Sydney is the lead pharmacy technician at her pharmacy, having worked there for nearly seven years, and she makes sure that everyone is mindful of her seniority.

Sydney refuses to stock the vials, collect the trash, or check out customers, as she feels that she is above these duties.

- What impact does Sydney's perspective likely have on her coworkers?

Sydney's perspective is likely demotivating to her coworkers. Although she could have the respect of her coworkers, it is more likely that her superior attitude will cause resentment instead.

- How can Sydney improve her professionalism and serve as a better role model for the other pharmacy technicians?

Sydney can improve her professionalism by focusing more on working together with her coworkers as a team, by mentoring the newer staff members, and by not acting with superiority.

- With a clear attitude of arrogance, what reason(s) might the pharmacist or manager use for justifying Sydney's status as lead tech? Answers will vary
- How would you handle working in that environment? Answers will vary

Note to the instructor: The questions provided in this Profile in Practice are discussed in detail in the text on page 21.

Web Challenge

1. <http://www.nabp.net>

2. Review the list of membership benefits:

- a. <http://www.pharmacytechnician.com>
- b. <http://www.pharmacist.com>
- c. <http://www.ashp.org>
- d. <http://www.pharmacytechnician.org>