



## PharmServ Pharmacy Technician Certification Course Outline

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### Course 1 Outline

1. Course Overview
  - a. Minimum qualifications
    - i. High school graduate or GED
    - ii. Satisfactory criminal background check
    - iii. Completion of pharmacy technician training program
    - iv. Completion of 160 hours work experience
    - v. PTCB examination preparation
    - vi. Benefits of the Certified Pharmacy Technician (CPhT) credentials.
  
2. Pharmacy Industry
  - a. Types of pharmacy practice settings
    - i. Community/Retail
    - ii. Hospital/Institutional/Health-System
    - iii. Home healthcare/Long-term care
    - iv. Ambulatory care
    - v. Specialty pharmacy service.
  
3. Professional Conduct
  - a. Professionalism, Communication, Compassion and Teamwork
    - i. Dress code
      1. Professional attire
      2. Good personal hygiene
  
    - ii. Compassion
      1. Patients
      2. Co-workers
    - iii. Teamwork
      1. Elements of teamwork
      2. Hospital workflow
      3. Community workflow
  
  - iv. Conduct

1. Disruptive behavior
2. Demeaning Behavior
3. Intimidating Behavior
4. Passive-aggressive behavior
5. Passive disrespect
6. Dismissive treatment

v. Communication

1. Respectful and professional
2. Dealing with hostile patients
3. Patients with mental illness
4. Elderly patients
5. Patients with low health literacy

vi. Cultural Sensitivity

1. Professional patient encounters
2. Religious and cultural diversity awareness
3. LGBTQ patient communication awareness

4. Roles and Responsibilities of Pharmacy Technicians

a. Prescription preparation

- i. Basic knowledge of prescription and Over The Counter (OTC) medications
- ii. Knowledge of medication strengths and physical appearance
- iii. Typical arrangement of medications in the pharmacy
- iv. Double checking methods for accuracy and error prevention

b. Healthcare institution medication orders preparation

- i. Basic knowledge of Intravenous (IV) medication
- ii. Compounding IV medications
  1. Basic calculations
  2. Aseptic techniques

c. Filling automated dispensing cabinet (ADC)

- i. Pyxis med station medication management
- ii. Omnicell medication dispensing system

5. Processing Medication Orders and Prescription

a. Community/Outpatient/Retail Pharmacies

- i. Labeling requirements
- ii. Dispensing
- iii. Storing

b. Hospital/Inpatient Pharmacies

- i. Labeling requirements
- ii. Dispensing
- iii. Prepackaging
- iv. Distribution
- v. Storage



6. Medication dosage forms
  - a. Liquid
  - b. Solid
  - c. Semisolid
  - d. Miscellaneous
7. Routes of Administration
  - a. Oral
  - b. Sublingual
  - c. Parenteral
  - d. Topical
8. Generic, Brand, Classification of Drugs (in relation to top 300 drugs)
  - a. Drugs that affect Nervous system
  - b. Drugs that affect Cardiovascular System
  - c. Drugs that affect Respiratory system
  - d. Drugs that affect Musculoskeletal system
  - e. Drugs that affect Endocrine system
  - f. Drugs that affect Gastrointestinal system
  - g. Drugs that affect Urinary system
  - h. Drugs that affect Women's Health
  - i. Drugs that affect Men's Health
  - j. Anti-infective
  - k. Hematologic drugs
  - l. Drugs to treat Arthritis
  - m. Drugs to treat Seasonal Allergies
  - n. Vitamins and Dietary Supplements
  - o. Controlled Substances
    - i. Schedules and Laws
    - ii. Labeling
    - iii. Dispensing
9. Pharmaceutical Calculations
  - a. Basic math
  - b. Conversions
  - c. BSA
  - d. IBW
  - e. Dosage calculations
  - f. Concentration and Dilution
  - g. IV Flow Rate
  - h. Pediatric formulation
10. Dosing considerations for pediatric and geriatric patients
  - a. Pediatric pharmacokinetics



- b. Geriatric pharmacokinetics
- c. Medication safety considerations

11. Billing and Reimbursement (Third Party)

- a. Self-Pay
- b. Private insurance
- c. Public payer
  
- d. Billing for drugs and dispensing services

12. Inventory Management

- a. Ordering and keeping inventory
- b. Billing and insurance
- c. Pharmaceutical supply chain management

13. IV Compounding

- a. Sterile compounding area
- b. Compounding technique
- c. Compounding supplies
- d. Labeling
- e. Parenteral Nutrition Solutions

14. Patient Confidentiality

- a. Health Insurance Portability and Accountability Act of 1996 (HIPPA)

**Course 2 Outline**

- 1. Students complete 160 hours of on-site training
  - a. 80 hours at a hospital setting/health-system/institution site
  - b. 80 hours at a community/out-patient/ambulatory site

**Course 3 Outline**

- 1. PTCB Examination Overview
  - a. PTCB exam structure
    - 1. 110-min
    - 2. 80 MCQ plus 10 questions that doesn't count in test score



2. General Science knowledge
  - a. Structure and function of the human body
  
3. Basic Pharmacology of Technicians
  - a. Pharmacokinetics review
    1. Absorption
    2. Distribution
    3. Metabolism
    4. Excretion
  - b. Pharmacodynamics
    1. Drug effects on the human body system
  - c. Understanding Basic Drug Interactions
  
4. Review of Top 300 drugs
  - a. Brand/Generic/Classification
  
5. Pharmacy Law and Regulations
  - a. Food and Drug Act
  - b. Sherley Amendment
  - c. FDA
  - d. Food, Drug, and Cosmetic Act
  - e. Durham-Humphrey Amendment
  - f. Kefauver-Harris Drug Review
  - g. Tamper-resistant Packaging Regulation
  - h. Hatch-Waxman Act
  - i. Prescription Drug Marketing Act
  - j. U.S. Food and Drug Administration Modernization Act
  - k. Medicare Prescription Drug Improvement and Modernization Act
  - l. Project BioShield Act
  - m. Anabolic Steroid Control Act
  - n. Drug Safety Board
  - o. Combat Methamphetamine Epidemic Act
  - p. Requirement on Content and Format of Labeling for Human Prescription Drug and Biological Products
  
6. Sterile and Nonsterile Compounding
  - a. USP General Chapter <795>
  - b. Compounding equipment and procedures
  - c. Compounding preparations
  - d. Repackaging drugs
  - e. Beyond-use dating and labeling
  - f. Total Parenteral Nutrition Solution
  - g. Hazardous Sterile Compounding
  - h. Quality Assurance



7. Medication Safety
  - a. Types of medication errors
  - b. Incidence
  - c. Impact of medication errors
  - d. Cause of medication errors
  - e. Medication safety strategies
8. Review Medication Order Entry and Fill Process
9. Review Billing and Reimbursement
10. Typical PTCB Exam Questions Review