Recognized Education/Training Program Curriculum Map

About This Worksheet

PTCB requires applicants for the CPhT Certification to complete a PTCB-Recognized Education/Training Program OR equivalent work experience. The purpose of this worksheet is to allow pharmacy technician education/training program directors to map their curriculum for guidance on becoming PTCB-Recognized for the Pharmacy Technician Certification Exam (PTCE). Completing this worksheet is not required but will assist program directors in identifying which of the listed knowledge and skills are included in the program curriculum, as well as where and how that knowledge is imparted. Light gray knowledge areas in the chart below are recommended for competent CPhTs, but not required for recognition.

Instructions for Program Directors

- Refer to your current program syllabus or instructional design document.
- Carefully review the PTCB Certified Pharmacy Technician (CPhT) Knowledge Reference.
- On the worksheet below, provide citations referencing the course outline current syllabus or instructional design document indicating where each knowledge area or statement is addressed within the course curriculum; you can also indicate whether that instruction is didactic, simulated, or experiential (D, S, or E).

Program Information

Institution Name: _____

Program Name: _____

Program Type: □ Associate's Degree □ Technical Certificate □ High School □ Other

Program Director Name: _____

Program Director Email: _____

Program Director Phone: _____

Curriculum Information

List all textbooks and workbooks required to complete the course:

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Medications

PTCE Knowledge Area	Citation	Type (D, S, E)
Generic names, brand names, and classifications of medications		
Therapeutic equivalence		
Common and life-threatening drug interactions and contraindications (e.g., drug-disease, drug-drug, drug-dietary supplement, drug laboratory, drug-nutrient)		
Strengths/dose, dosage forms, routes of administrations, special handling and administration instructions, and duration of drug therapy		
Common and severe medication side effects, adverse effects, and allergies		
Indications of medications and dietary supplements		
Drug stability (e.g., oral suspensions, insulin, reconstitutables, injectables, vaccinations)		
Narrow therapeutic index (NTI) medications		
Physical and chemical incompatibilities related to non-sterile compounding and reconstitution		
Proper storage of medications (e.g., temperature ranges, light sensitivity, restricted access)		

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Federal Requirements

PTCE Knowledge Area	Citation	Type (D, S, E)
Federal requirements for handling and disposal of non-hazardous, hazardous, and pharmaceutical substances and waste		
Federal requirements for controlled substance prescriptions (i.e., new, refill, transfer) and DEA controlled substance schedules		
Federal requirements (e.g., DEA, FDA) for controlled substances (i.e., receiving, storing, ordering, labeling, dispensing, reverse distribution, take- back programs, and loss or theft of)		
Federal requirements for restricted drug programs and related medication processing (e.g., pseudoephedrine, Risk Evaluation and Mitigation Strategies [REMS])		
FDA recall requirements e.g., medications, devices, supplies, supplements, classifications		
Federal requirements (e.g., DEA, FDA) for receiving, ordering, refilling, labeling, dispensing, returning, take-back programs, and loss or theft of non-controlled substances		
OSHA requirements for prevention and treatment of hazardous substances exposure (e.g., eyewash, spill kit)		
DEA requirements for record keeping, documentation, and record retention (i.e., minimum length of time controlled substances and records are maintained on file)		
OSHA Hazard Communication Standard (i.e., “Employee Right to Know”)		
Federal requirements for availability of medications (i.e., Rx, OTC, behind the counter)		
Federal requirements for non-controlled substance prescription transfer		
FDA requirements for consumer medication information and Medication Guides		
Methods to electronically verify a prescriber’s DEA number		
OBRA-90 requirement for consultation		
Process to determine the state, federal, and local laws and regulations that apply to one’s practice site		
HIPAA requirements for confidentiality		

FDA requirements for receiving, storing, ordering, labeling, dispensing, returning, and loss or theft of investigational drugs		
OSHA requirements for addressing bloodborne pathogen exposure (e.g., accidental needle stick, post-exposure prophylaxis [PEP]		
ADA requirements to address patient physical limitations (e.g., easy-off caps, increased font size, script-talk machines, braille)		
FDA product tracking and tracing requirements (i.e., Drug Supply Chain Security Act [DSCSA])		

State Requirements and Practice Standards

PTCE Knowledge Area	Citation	Type (D, S, E)
State requirements for licensure, registration, and/or certification of pharmacy technicians		
State requirements regarding the roles and responsibilities of pharmacists, pharmacy technicians, and other pharmacy employees		
State requirements regarding facilities, equipment, and supply (e.g., space requirements, prescription file storage, cleanliness, reference materials		
The Joint Commission standards and OSHA requirements for employer staff training		
The Joint Commission standards for record-keeping of received, repackaged, batch-prepared, recalled, and returned products and supplies		
The Joint Commission standards and CMS conditions of participation for the operation of pharmacies		

Patient Safety and Quality Assurance

PTCE Knowledge Area	Citation	Type (D, S, E)
High-alert/risk medications and look-alike/sound-alike [LASA] medications		
Error prevention strategies (e.g., prescription or medication order to correct patient, Tall Man lettering, separating inventory, leading and trailing zeros, bar code usage, limit use of error-prone abbreviations)		

Issues that require pharmacist intervention (e.g., drug utilization review [DUR], adverse drug event [ADE], OTC recommendation, therapeutic substitution, misuse, adherence, post-immunization follow-up, allergies, drug interactions)		
Event reporting procedures (e.g., medication errors, adverse effects, and product integrity, MedWatch, near miss, root -cause analysis [RCA])		
Types of prescription errors (e.g., abnormal doses, early refill, incorrect quantity, incorrect patient, incorrect drug)		
Hygiene and cleaning standards (e.g., handwashing, personal protective equipment [PPE], cleaning counting trays, countertop, and equipment)		
Effects of patient-specific factors on drug and non-drug therapy (e.g., cultural beliefs, disabilities, language barriers, socioeconomic status)		
Products used in packaging and repackaging (e.g., type of bags, syringes, glass, PVC, child-resistant caps and light-protective unit-dose packaging		
Information sources used to obtain data in a quality improvement process (e.g., the patient's chart, patient's medication profile, computerized information systems, medication administration record, immunization registry, medication therapy management [MTM] platforms)		
Quality assurance practices for medication and inventory control systems (e.g., bar code, data entry)		
Requirements and strategies for addressing errors in practice (e.g., quality improvement teams, adverse drug reaction reporting, opportunity/suggestion cards)		
Equipment calibration techniques and documentation requirements (e.g., balance, IV pumps)		
Measures of productivity, efficiency, and customer satisfaction		
Automatic stop orders		

Order Entry and Processing

PTCE Knowledge Area	Citation	Type (D, S, E)
Procedures to compound non-sterile products (e.g., ointments, mixtures, liquids, emulsions, suppositories, enemas)		

Formulas, calculations, ratios, proportions, alligations, conversions, Sig codes (e.g., b.i.d., t.i.d., Roman numerals), abbreviations, medical terminology, and symbols for days supply, quantity, dose, concentration, dilutions		
Equipment/supplies required for drug administration (e.g., package size, unit dose, diabetic supplies, spacers, oral and injectable syringes)		
Lot numbers, expiration dates, and National Drug Code (NDC) numbers		
Procedures for identifying and returning dispensable, non- dispensable, and expired medications and supplies (e.g., credit return, return to stock, reverse distribution)		
Procedure to stage prescriptions for final verification		
Information to be obtained from patient/patient representatives and/or health care providers (e.g., medical and medication history, demographic information, allergy, opt-in services information, third-party information)		
Factors that determine prioritization of prescription/medication order processing (e.g., stat, maintenance, waiting)		
Procedures and environmental controls to prepare non-sterile hazardous medications (e.g., negative pressure rooms)		
Documentation and record-keeping requirements (e.g., lot number, expiration date, batch preparation, compounding record)		
Medication mailing requirements (e.g., controlled and non- controlled, cold chain packing requirements)		
Procedures for assigning beyond use dates for non-sterile compounds		
Delivery systems for distributing different medications (e.g., pneumatic tube, robotics, runners)		
Techniques for detecting forged, altered, or invalid prescriptions (e.g., watermarks, signatures, handwriting, quantity)		
Procedures to clean, disinfect, and decontaminate compounding areas		
Types of enteral products and supplies		

Inventory Management

PTCE Knowledge Area	Citation	Type (D, S, E)
Procedures to address improperly stored inventory (e.g., out of range temperature issues)		
Formulary or approved/preferred product list		
Suitable alternatives for ordering (e.g., transferring or borrowing medications from another pharmacy)		
Medication quality control system requirements (e.g., automated dispensing systems, bar coding, clinic and nursing floor stock, crash carts, emergency kits)		
Procedures for ordering medications and supplies		
Inventory control practices and record keeping (e.g., par and reorder levels, turnover rates, drug usage patterns, and perpetual inventory)		
Procedures to perform physical inventories (e.g., annual, controlled substance)		
Automated equipment inventory management (e.g., configuring drawers, setting par level)		

Administrative and Management

PTCE Knowledge Area	Citation	Type (D, S, E)
Administrative duties and procedures for pharmacies such as managing files and records, transcription, and other office procedures and terminology		
Purpose and proper use of pharmacy reports (e.g., inventory reports, diversion reports, discrepancy reports, override reports, usage reports, input accuracy reports, business summary reports)		
Process for handling and destroying confidential/classified information		
Preventative maintenance scheduling for automated equipment		
Basic data analysis (e.g., interpreting trends in seasonal demands, productivity, margins, staffing needs, drug discrepancies, shortages)		

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Health and Wellness

PTCE Knowledge Area	Citation	Type (D, S, E)
Devices used for monitoring and/or screening (e.g., automatic blood pressure monitor, glucose monitors test strips/lancets, point-of-care tests)		
Strategies for assessing a patient's compliance with prescriptions or medication orders (e.g., patterns of early/late refills, medication therapy management [MTM])		
Patient factors that influence drug effects (e.g., age, height, genetics, weight, gender, diet)		
Anatomy and physiology of body systems and major organs		
Standard laboratory tests and their uses		
Durable and non-durable equipment, devices, and supplies (e.g., ostomy supplies, orthopedic devices, pumps)		
Procedures and techniques for documenting disease prevention and health promotion initiatives (e.g., immunizations, health screenings, genome testing, and wellness checks)		
Risk factors for disease (e.g., alcohol and illicit drug use, smoking, obesity, sedentary lifestyle)		
Signs, symptoms, and origins of disease states		
Immunization schedules		
Procedures to obtain vaccine information statements		

Billing and Reimbursement

PTCE Knowledge Area	Citation	Type (D, S, E)
Characteristics of reimbursement policies and plans (e.g., HMOs, PPO, CMS, Affordable Care Act, private plans, Medicare and Medicaid plans, TriCare		
Level of service billing (e.g., immunization services, point-of-care testing, durable medical equipment, medication therapy management [MTM], clinical services, medical vs. prescription coverage, Medicare Part B)		
Strategies to minimize patient out-of-pocket costs (e.g., formulary tiers)		
Strategies to resolve third party rejected claims		
Factors influencing reimbursement rates, policies, and plans		

Third-party reimbursement systems (e.g., PBM, medication assistance programs, coupons, 340B vouchers)		
Procedures to obtain prior authorization		
Healthcare reimbursement systems (e.g., home health, long- term care, home infusion)		
Reimbursement models (e.g., AWP, dispensing fee, cost)		
Procedures to coordinate benefits (e.g., dual coverage and copay reduction plans)		
Medications included in Centers for Medicare & Medicaid Services (CMS) five-star quality rating system		