



**Pharmacy Technician Certification Examination (PTCE) Content Outline  
Effective January 1, 2020**

1.	Medications	40%
1.1	Generic names, brand names, and classifications of medications	
1.2	Therapeutic equivalence	
1.3	Common and life-threatening drug interactions and contraindications (e.g., drug-disease, drug-drug, drug-dietary supplement, drug-laboratory, drug-nutrient)	
1.4*	Strengths/dose, dosage forms, routes of administration, special handling and administration instructions, and duration of drug therapy	
1.5	Common and severe medication side effects, adverse effects, and allergies	
1.6	Indications of medications and dietary supplements	
1.7*	Drug stability (e.g., oral suspensions, insulin, reconstitutables, injectables, vaccinations)	
1.8	Narrow therapeutic index (NTI) medications	
1.9	Physical and chemical incompatibilities related to non-sterile compounding and reconstitution	
1.10	Proper storage of medications (e.g., temperature ranges, light sensitivity, restricted access)	
2.	Federal Requirements	12.5%
2.1	Federal requirements for handling and disposal of non-hazardous, hazardous, and pharmaceutical substances and waste	
2.2*	Federal requirements for controlled substance prescriptions (i.e., new, refill, transfer) and DEA controlled substance schedules	
2.3	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)	
2.4*	Federal requirements for restricted drug programs and related medication processing (e.g., pseudoephedrine, Risk Evaluation and Mitigation Strategies [REMS])	



2.5	FDA recall requirements (e.g., medications, devices, supplies, supplements, classifications)	
<b>3.</b>	<b>Patient Safety and Quality Assurance</b>	<b>26.25%</b>
3.1	High-alert/risk medications and look-alike/sound-alike [LASA] medications	
3.2	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)	
3.3*	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)	
3.4	Event reporting procedures (e.g., medication errors, adverse effects, and product integrity, MedWatch, near miss, root-cause analysis [RCA])	
3.5*	Types of prescription errors (e.g., abnormal doses, early refill, incorrect quantity, incorrect patient, incorrect drug)	
3.6	Hygiene and cleaning standards (e.g., handwashing, personal protective equipment [PPE], cleaning counting trays, countertop, and equipment)	
<b>4.</b>	<b>Order Entry and Processing</b>	<b>21.25%</b>
4.1*	Procedures to compound non-sterile products (e.g., ointments, mixtures, liquids, emulsions, suppositories, enemas)	
4.2*	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	
4.3*	Equipment/supplies required for drug administration (e.g., package size, unit dose, diabetic supplies, spacers, oral and injectable syringes)	
4.4*	Lot numbers, expiration dates, and National Drug Code (NDC) numbers	
4.5	Procedures for identifying and returning dispensable, non-dispensable, and expired medications and supplies (e.g., credit return, return to stock, reverse distribution)	

\* Some or all of this statement reflects calculation-based knowledge.