

# Recognized Education/Training Program Curriculum Map

## Molloy University Pharmacy Technician Certificate Program

*Aligned to PTCB 2026 Standards\**

### About Our Program:

Molloy University's Pharmacy Technician Certificate Program exceeds the minimum requirements required for designation as a "PTCB-Recognized Education Training Program". The distinction ensures our curriculum aligns to the official "PTCB Certified Pharmacy Technician (CPhT) Knowledge Reference" document (available via [ptcb.org](http://ptcb.org)). The document outlines standards, recently updated in 2026, which address knowledge and skills a program's curriculum is required to encompass to secure distinction as a "PTCB-Recognized Education Training Program". Additionally, Molloy's program is inclusive to content not required for recognition but recommended by PTCB to support student endeavors for becoming a fully competent CPhT.

### Curriculum Materials:

1. **Practice Fundamentals** (Listed below "Practice Funds")  
Bachenheimer, B. S., & Phillips, J. (2025). Manual for pharmacy technicians (6th ed.). American Society of Health-System Pharmacists. ISBN 978-1-58528-740-6
2. **Pathophysiology-Pharmacology** (Listed below as "Patho-Pharm")  
Stuhan, M. A. (2023). Understanding pharmacology for pharmacy technicians (2nd ed.). American Society of Health-System Pharmacists. ISBN 978-1-58528-662-1
3. **Pharmacy Calculations** (Listed on below as "Calc")  
Rewald, M., Lorang, B., & Schramm, G. E. (2020). Pharmacy calculations: An introduction for pharmacy technicians (2nd ed.). American Society of Health-System Pharmacists. ISBN 978-1-58528-638-6

The table below provides a cross-reference to establish alignment between Molloy's curriculum and PTCB's knowledge areas/statements. Each knowledge area/statement is linked to a citation which corresponds to the current syllabus's modules and respective sub-sections (i.e., Practice Fundamentals, Pathophysiology-Pharmacology, Pharmacy Calculations). The citations are supported by describing the method of instruction Molloy's program utilizes to support student outcomes (i.e. didactic as "D", experiential as "E", simulated as "S"). Refer to the citation key below.

### Citation Key:

PTCE Knowledge Area	Citation	Type
Correspond to "Program Learning Objectives" (PLOs) listed on syllabus for each module & respective sub-section	<b>Practice Funds:</b> Mod # <b>Patho-Pharm:</b> Mod # <b>Calc:</b> Mod #	D E S

## Curriculum Citations:

### 1. Medications

Items that may require calculations-based knowledge denoted with an asterisk (\*)

PTCE Knowledge Area	Citation	Type
1.1 Generic names, brand names, and classifications of medications	Patho-Pharm: Mod 2-14	D, E
1.2 Therapeutic duplications	Practice Funds: Mod 5	D, E
1.3 Common or life-threatening drug interactions and contraindications (e.g., drug-drug, drug-dietary supplement, drug-laboratory, drug-nutrient, drug-disease)	Practice Funds: Mod 2 Patho-Pharm: Mod 1, 14	D, E
*1.4 Strengths/doses, dosage forms, routes of administration, special handling and administration instructions, and duration of drug therapy	Practice Funds: Mod 2-3 Patho-Pharm: Mod 1, 6, 8, 12-13	D, E
1.5 Common or severe medication side effects, adverse effects, and allergies	Patho-Pharm: Mod 2-14	D, E
1.6 Indications of medications	Patho-Pharm: Mod 2-14	D, E
*1.7 Drug stability (e.g., oral suspensions, insulins, reconstitutables, injectables, vaccinations)	Practice Funds: Mod 10 Patho-Pharm: Mod 8-10 Calc: Mod 10-11	D, E
1.8 Proper storage of medications (e.g., temperature ranges, light sensitivity, restricted access)	Patho-Pharm: Mod 8-10	D, E
<b>Recommended for competent CPhTs, not PTCB required.</b>		
*1.9 Physical and chemical incompatibilities related to non-sterile compounding and reconstitution	Practice Funds: Mod 9 Calc: Mod 10	D, E

### 2. Federal Requirements

Items that may require calculations-based knowledge denoted with an asterisk (\*)

PTCE Knowledge Area	Citation	Type
2.1 Federal requirements for storage, handling, and disposal of non-hazardous, hazardous (e.g., P-list), and pharmacological substances and wastes	Practice Funds: Mod 8	D, E
*2.2 Federal requirements for controlled substance prescriptions (i.e., new, refill, transfer) and DEA controlled substance schedules	Practice Funds: Mod 8 Calc: Mod 7	D, E
2.3 Federal requirements for receiving, storing, ordering, labeling, dispensing, returning, take-back programs for, loss or theft of, and destroying controlled substances.	Practice Funds: Mod 8	D, E
*2.4 Federal restricted drug programs and related medication-processing requirements (e.g., pseudoephedrine, Risk Evaluation and Mitigation)	Practice Funds: Mod 8 Calc: Mod 8	D, E
2.5 FDA requirements for medication recalls	Practice Funds: Mod 11	D, E

PTCE Knowledge Area	Citation	Type
2.6 FDA product serialization, tracking, tracing, handling, and quarantining requirements (i.e., Drug Supply Chain Security Act [DSCSA])	Practice Funds: Mod 11	D, E
2.7 OSHA requirements for addressing bloodborne pathogen exposure (e.g., accidental needle stick, post-exposure prophylaxis [PEP])	Practice Funds: Mod 10	D, E
2.8 ADA requirements to address patient physical limitations (e.g., easy-off caps, increased font size, script-talk machines, Braille)	Practice Funds: Mod 3	D, E
2.9 FDA requirements for receiving, ordering, refilling, labeling, dispensing, returning, take-back programs, and loss or theft of, and destroying non-controlled substances	Practice Funds: Mod 8	D, E
2.10 OSHA requirements for prevention and treatment of hazardous substance exposure (e.g., eyewash, spill kit)	Practice Funds: Mod 10	D, E
2.11 DEA requirements for record keeping, documentation, and record retention (e.g., length of time that controlled substance records are maintained on file)	Practice Funds: Mod 8	D, E
2.12 OSHA Hazard Communication Standard (e.g., Employee Right to Know)	Practice Funds: Mod 6	D, E
2.13 Federal requirements for accessibility of medications (i.e., Rx, OTC, behind the counter)	Practice Funds: Mod 8	D, E
2.14 Federal requirements for non-controlled substance prescription transfer	Practice Funds: Mod 8	D, E
2.15 FDA requirements for consumer medication information and Medication Guides	Practice Funds: Mod 8	D, E
2.16 Methods to electronically verify a prescriber's DEA and/or NPI number	Practice Funds: Mod 5	D, E
2.17 OBRA-90 requirement for consultation	Practice Funds: Mod 8	D, E
2.18 Reconciliation between state, federal, and local laws and regulations	Practice Funds: Mod 8	D, E
2.19 HIPAA requirements for confidentiality	Practice Funds: Mod 8	D, E
<b>Recommended for competent CPhTs, not PTCB required.</b>		
*2.20 FDA requirements for receiving, storing, ordering, labeling, dispensing, returning, and loss or theft of investigational drugs	Practice Funds: Mod 8 Calc: Mod 10-11	D, E
*2.21 OSHA and NIOSH requirements and recommendations for training	Practice Funds: Mod 8	D, E

## 2b. State Requirements and Practice Standards

Items that may require calculations-based knowledge denoted with an asterisk (\*)

PTCE Knowledge Area	Citation	Type
2b.1 State requirements for licensure, registration, and/or certification of pharmacy technicians	Practice Funds: Mod 8	D, E
2b.2 State requirements regarding the roles and responsibilities of pharmacists, pharmacy technicians, and other pharmacy employees	Practice Funds: Mod 8	D, E
2b.3 State requirements regarding facilities, equipment, and supply (e.g., space requirements, prescription file storage, cleanliness, reference materials).	Practice Funds: Mod 8	D, E
2b.4 State requirements for accessibility of medications (i.e., Rx, OTC, behind the counter)	Practice Funds: Mod 8	D, E
2b.5 State requirements for storage, handling, and disposal of non-hazardous, hazardous, and pharmacological substances and wastes (e.g., Safety Data Sheet [SDS], sharps containers, receptacle types)	Practice Funds: Mod 8	D, E
2b.6 State schedule classifications for controlled substances	Practice Funds: Mod 8	D, E
2b.7 State requirements for receiving, storing, ordering, refilling, labeling, dispensing, returning, take-back programs, loss or theft of, and destroying controlled substances	Practice Funds: Mod 8	D, E
2b.8 State requirements for controlled substance prescription transfer	Practice Funds: Mod 8	D, E
2b.9 State requirements for record keeping, documentation, and record retention (e.g., length of time that controlled substances and records are maintained on file)	Practice Funds: Mod 8	D, E
<b>Recommended for competent CPhTs, not PTCB required.</b>		
<i>*2b.10 Accrediting body (e.g., The Joint Commission, AAAHC, DNV) standards for training</i>	Practice Funds: Mod 8	D, E
<i>*2b.11 Accrediting body (e.g., The Joint Commission, AAAHC, DNV) standards for record keeping of received, repackaged, batch-prepared, recalled, and returned products and supplies</i>	Practice Funds: Mod 8 Calc: Mod 10-11	D, E
<i>*2b.12 Accrediting body (e.g., The Joint Commission, AAAHC, DNV) standards for competency assessment</i>	Practice Funds: Mod 8	D, E

## 3. Patient Safety and Quality Assurance

Items that may require calculations-based knowledge denoted with an asterisk (\*)

PTCE Knowledge Area	Citation	Type
3.1 High-alert/risk medications and look-alike/sound-alike [LASA] medications	Practice Funds: Mod 6 Patho-Pharm: Mod 9	D, E
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)	Practice Funds: Mod 6-7	D, E

PTCE Knowledge Area	Citation	Type
*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 delivery care, allergies, drug interactions)	Practice Funds: Mod 1, 5-6	D, E
3.4 Event reporting procedures (e.g., medication errors, adverse effects, product integrity, MedWatch, VAERS, near miss, root-cause analysis [RCA], continuous quality improvement [CQI])	Practice Funds: Mod 6	D, E
*3.5 Types of prescription errors (e.g., incorrect dose, quantity, patient, drug, route of administration)	Practice Funds: Mod 6 Calc: Mod 5-6, 8	D, E
3.6 Infection prevention procedures and cleaning standards (e.g., handwashing, personal protective equipment [PPE], cleaning counting trays, countertops, and equipment)	Practice Funds: Mod 10	D, E
3.7 Standards of professionalism when interacting with diverse patient populations, colleagues, and professionals	Practice Funds: Mod 1, 4	D, E
3.8 Impact of patient-specific factors on drug and non-drug therapy (e.g., cultural beliefs, disabilities, language barriers, socioeconomic status)	Practice Funds: Mod 1	D, E
3.9 Products used in packaging and repackaging (e.g., type of bags, syringes, glass, PVC, child-resistant caps and light-protective unit-dose packaging)	Practice Funds: Mod 3, 9	D, E
3.10 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)	Practice Funds: Mod 6	D, E
3.11 Quality assurance practices for medication and inventory control systems (e.g., bar code, data entry)	Practice Funds: Mod 6-7	D, E
3.12 Requirements and strategies for identifying errors in practice (e.g., quality improvement teams, opportunity/suggestion cards)	Practice Funds: Mod 6	D, E
3.13 Medication reconciliation process (e.g., purpose, steps)	Practice Funds: Mod 4	D, E
<b>Recommended for competent CPhTs, not PTCB required.</b>		
*3.14 Equipment calibration techniques and documentation requirements (e.g., balance, IV pumps)	Practice Funds: Mod 9-10 Calc: Mod 11	D, E
*3.15 Measures of productivity, efficiency, and employee/customer satisfaction	Practice Funds: Mod 1	D, E
*3.16 Automatic and/or hard stop orders (e.g., IV to PO, ketorolac)	Practice Funds: Mod 6 Calc: Mod 5-6, 8	D, E

## 4. Order Entry and Processing

Items that may require calculations-based knowledge denoted with an asterisk (\*)

PTCE Knowledge Area	Citation	Type
*4.1 Formulas, calculations, ratios, proportions, 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	<b>Practice Funds:</b> Mod 5 <b>Calc:</b> Mod 1-12	D, E
*4.2 Equipment and supplies required for drug administration (e.g., diabetic supplies, inhaler spacers, oral syringes, injectable syringes, filters, dilution solutions, immunization supplies, nebulizers)	<b>Practice Funds:</b> Mod 3 <b>Patho-Pharm:</b> Mod 6 <b>Calc:</b> Mod 5-6, 8, 11	D, E
*4.3 Lot numbers, expiration dates, and National Drug Code (NDC) numbers	<b>Practice Funds:</b> Mod 5	D, E
4.4 Procedures for identifying and returning dispensable, non-dispensable, and expired medications and supplies (e.g., credit return, return to stock, reverse distribution)	<b>Practice Funds:</b> Mod 11	D, E
4.5 Systems for documenting the dispensing of medications, immunizations, and supplies	<b>Practice Funds:</b> Mod 4-5, 7	D, E
4.6 Techniques for detecting forged, altered, or invalid prescriptions (e.g., watermarks, signatures, handwriting, quantity)	<b>Practice Funds:</b> Mod 8	D, E
4.7 Procedure to stage prescriptions for final verification	<b>Practice Funds:</b> Mod 4-5	D, E
4.8 Information to be obtained from a patient, patient's representative, and/or health care provider (e.g., medical or medication history, demographic information, allergies, opt-in services information, third-party billing information)	<b>Practice Funds:</b> Mod 4-5	D, E
4.9 Factors that determine prioritization of prescription/medication order processing (e.g., stat, routine, waiting)	<b>Practice Funds:</b> Mod 5	D, E
4.10 Procedures for selecting and obtaining information from key pharmacy references, regulations, policies, and guidelines (e.g., SDS, NIOSH, USP)	<b>Practice Funds:</b> Mod 9-10	D, E
<b>Recommended for competent CPhTs, not PTCEB required.</b>		
*4.11 Procedures to compound nonsterile products (e.g., ointments, mixtures, liquids, emulsions, suppositories, enemas)	<b>Practice Funds:</b> Mod 9 <b>Calc:</b> Mod 10	D, E
*4.12 Formulas and calculations for nonsterile compounding (e.g., dispensing quantities, days' supply, ratio and proportions, metric conversions, alligations)	<b>Practice Funds:</b> Mod 9 <b>Calc:</b> Mod 9-10	D, E
*4.13 Procedures and environmental controls to prepare nonsterile hazardous medications (e.g., negative pressure rooms)	<b>Practice Funds:</b> Mod 9 <b>Calc:</b> Mod 10, 11	D, E
*4.14 Documentation and record-keeping requirements for compounded products (e.g., lot number, expiration date, batch preparation, compounding record)	<b>Practice Funds:</b> Mod 9-10 <b>Calc:</b> Mod 10-11	D, E
*4.15 Medication mailing requirements (e.g., controlled and non-controlled, cold chain packing requirements, chain of custody)	<b>Practice Funds:</b> Mod 8, 11	D, E
*4.16 Procedures for assigning beyond-use dates for nonsterile compounds	<b>Practice Funds:</b> Mod 9 <b>Calc:</b> Mod 10-11	D, E
*4.17 Delivery systems (e.g., pneumatic tube, robotics, runners) for distributing medications	<b>Practice Funds:</b> Mod 7	D, E

PTCE Knowledge Area	Citation	Type
*4.18 Procedures to clean, disinfect, deactivate, and decontaminate compounding areas	Practice Funds: Mod 9-10 Calc: Mod 12	D, E
*4.19 Types of enteral products and supplies (e.g., supplemental nutritional formulas)	Practice Funds: Mod 10 Patho-Pharm: Mod 14 Calc: Mod 5-6, 8	D, E
*4.20 Procedures to calibrate nonsterile compounding equipment	Practice Funds: Mod 9 Calc: Mod 12	D, E
*4.21 Distribution procedures for non-patient-specific medications (e.g., RTUs, unit dose, emergency kits, floor stock)	Practice Funds: Mod 4, 11 Calc: Mod 5-6, 8	D, E

## 5. Inventory Management

Items that may require calculations-based knowledge denoted with an asterisk (\*)

PTCE Knowledge Area	Citation	Type
5.1 Procedures to address improperly stored inventory (e.g., temperature and/or humidity excursions)	Practice Funds: Mod 11	D, E
5.2 Formulary or approved/preferred product list	Practice Funds: Mod 4, 11	D, E
5.3 Suitable alternatives to ordering (e.g., transferring or borrowing medications from another pharmacy)	Practice Funds: Mod 11	D, E
5.4 Medication quality control system requirements (e.g., automated dispensing systems, bar coding, clinic and nursing floor stock, crash carts, emergency kits)	Practice Funds: Mod 7, 11	D, E
5.5 Procedures for ordering medications and supplies	Practice Funds: Mod 11	D, E
5.6 Inventory control practices and record keeping (e.g., par and reorder levels, turnover rates, drug usage patterns, and perpetual inventory)	Practice Funds: Mod 11 Calc: Mod 12	D, E
5.7 Procedures to perform physical inventories (e.g., annual, controlled substance)	Practice Funds: Mod 11	D, E
<b>Recommended for competent CPhTs, not PTCB required.</b>		
*5.8 Automated equipment inventory management (e.g., configuring drawers, setting par level)	Practice Funds: Mod 7, 11 Calc: Mod 14	D, E
*5.9 Inventory preparation for final check (e.g., unit dose packaging, filling cassettes, IV fluids, automated dispensing systems)	Practice Funds: Mod 7, 11 Calc: Mod 14	D, E

## 6. Administrative and Management

PTCE Knowledge Area	Citation	Type
6.1 Administrative duties and procedures for pharmacies (e.g., managing files and records, transcription, and other procedures and terminology)	Practice Funds: Mod 4	D, E
6.2 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)	Practice Funds: Mod 7, 11	D, E
6.3 Process for handling and destroying confidential/classified information	Practice Funds: Mod 8	D, E
6.4 Role of pharmacy technicians, pharmacists, and other occupations in healthcare	Practice Funds: Mod 1, 4	D, E
<b><i>Recommended for competent CPhTs, not PTCEB required.</i></b>		
6.5 Preventative maintenance scheduling for automated equipment	Practice Funds: Mod 7, 11	D, E
6.6 Basic data analysis (e.g., interpreting trends in seasonal demands, productivity, margins, staffing needs, drug discrepancies, shortages)	Practice Funds: Mod 4, 11 Calc: Mod 12	D, E

## 7. Health and Wellness

PTCE Knowledge Area	Citation	Type
7.1 Devices used for monitoring and/or screening (e.g., automatic blood pressure monitors, glucose monitors, test strips/lancets, point-of-care tests)	Patho-Pharm: Mod 4, 8	D, E
7.2 Strategies for assessing patient's adherence to prescriptions/medication orders (e.g., patterns of early/late refills, medication therapy management [MTM])	Practice Funds: Mod 5	D, E
7.3 Basic knowledge of anatomy, physiology, and pharmacology relevant to pharmacy technicians	Patho-Pharm: Mod 1-14	D, E
7.4 Signs and symptoms of a health emergency	Practice Funds: Mod 4	D, E
<b><i>Recommended for competent CPhTs, not PTCEB required.</i></b>		
7.5 Patient factors that influence drug effects (e.g., age, height, genetics, weight, gender, diet)	Practice Funds: Mod 2 Patho-Pharm: Mod 4	D, E
7.6 Standard laboratory tests and their uses (e.g., cholesterol, blood glucose, A1C, INR)	Patho-Pharm: Mod 4-5, 8	D, E
7.7 Durable and non-durable equipment, devices, and supplies (e.g., ostomy supplies, orthopedic devices, pumps)	Practice Funds: Mod 4, 11	D, E
7.8 Procedures and techniques for documenting disease prevention and health promotion initiatives (e.g., immunizations, health screenings, genome testing, and wellness checks)	Practice Funds: Mod 4 Patho-Pharm: Mod 1-14	D, E
7.9 Risk factors for disease (e.g., alcohol and illicit drug use, smoking, obesity, sedentary lifestyle)	Patho-Pharm: Mod 1-14	D, E

PTCE Knowledge Area	Citation	Type
7.10 Common immunization schedules and resources	Patho-Pharm: Mod 9	D, E
7.11 Procedures to obtain vaccine information statements (VIS)	Practice Funds: Mod 4, Patho-Pharm: Mod 9	D, E
7.12 Procedures to collect, organize, and record demographic and clinical information for the Pharmacists' Patient Care Process	Practice Funds: Mod 4	D, E
7.13 Accepted procedures for administering immunizations	Practice Funds: Mod 4, Patho-Pharm: Mod 9	D, E
7.14 Purpose and procedures for point-of-care testing	Practice Funds: Mod 4	D, E

## 8. Billing and Reimbursement

PTCE Knowledge Area	Citation	Type
<b>Recommended for competent CPhTs, not PTCB required.</b>		
8.1 Characteristics of reimbursement policies and plans (e.g., HMOs, PPO, CMS, Affordable Care Act, private plans, Medicare and Medicaid plans, TriCare, MISSION Act)	Practice Funds: Mod 11	D, E
8.2 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)	Practice Funds: Mod 11	D, E
8.3 Strategies to minimize patient out-of-pocket costs (e.g., formulary tiers)	Practice Funds: Mod 11	D, E
8.4 Strategies to resolve third party rejected claims	Practice Funds: Mod 11	D, E
8.5 Factors influencing reimbursement rates, policies, and plans (e.g., dispensing fee, MAC, AWP, and DAW codes)	Practice Funds: Mod 11 Calc: Mod 12	D, E
8.6 Third-party reimbursement (e.g., PBM, medication assistance programs, coupons, 340B program compliance)	Practice Funds: Mod 11	D, E
8.7 Procedures to obtain prior authorization	Practice Funds: Mod 11	D, E
8.8 Procedures to coordinate benefits (e.g., dual coverage and copay reduction plans)	Practice Funds: Mod 11	D, E
8.9 Classes of medications that are relevant to the Centers for Medicare & Medicaid Services (CMS) five-star quality rating	Practice Funds: Mod 11	D, E

### Notes on citations in this worksheet:

- Citations reference the program's schedule and topical outline (see Molloy Mapping Completed). "Mod #" indicates the module number within each track (Practice Funds / Patho-Pharm / Calc).
- All instruction in this program is delivered through a combination of didactic (D) and experiential (E) modalities; no simulation-only (S) instruction is used.
- Light-gray rows correspond to knowledge areas that are recommended for competent CPhTs but are not required for PTCB Program Recognition. Uncited recommended items are not formally mapped in the current curriculum and do not affect recognition eligibility.