Maryland CTE Programs of Study

Pharmacy Technician I (2025)

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INTRODUCTION 2

A Career and Technical Education (CTE) instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions. 2.A

B The Health and Human Services Career Cluster promotes whole health in individuals and communities through diverse services. This sector includes technical, mental, and therapeutic services and personal care supported by medical and social sciences. By addressing social determinants of health and leveraging health data and science, this Cluster aims to enhance the overall health and resilience of individuals, families, and communities. 2.B

C The Pharmacy Technician Program of Study equips high school students with the knowledge and skills needed for careers in pharmacy and healthcare. Through a sequence of courses, students learn healthcare systems, pharmacology, prescription processing, and patient care practices, with hands-on training in compounding, inventory management, and pharmacy technology. The program includes a minimum of 160 hours of work-based learning, internships, or apprenticeships in licensed pharmacy settings, meeting Maryland Board of Pharmacy requirements. Students are prepared to achieve national certification as Certified Pharmacy Technicians (CPhT) and transition into entry-level roles or advanced healthcare pathways. 2.C

D Pharmacy Technician I introduces students to the foundational knowledge and skills required for a pharmacy technician career. Topics include healthcare systems, medical terminology, patient care, safety protocols, and infection control. Emphasis is placed on professionalism, communication, and ethical decision-making, preparing students for progression into Pharmacy Technician II. This course prepares students to meet eligibility and content expectations for the PTCB PTCE or NHA ExCPT; students complete an application plan and domain-mapped study portfolio. 2.D

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Students will participate in at least two Career-Connected Education and Work-Based Learning experiences in this course, which might include informational

interviews or job shadowing relevant to the program of study. 2.E

F **Students are encouraged to participate in extended learning experiences through aligned Career and Technical Student Organizations (CTSOs). CTSOs are a cocurricular requirement in the Carl D. Perkins Act, and alignment to CTSO activities is an expectation for CTE programs in the state of Maryland.** 2.F

KNOWLEDGE AND SKILLS 3

A **The student demonstrates the necessary skills for career development, maintenance of employability, and successful completion of course outcomes. The student is expected to:** 3.A

1. Identify and demonstrate positive work behaviors that enhance employability and job advancement, such as regular attendance, promptness, proper attire, maintenance of a clean and safe work environment, and pride in work. 3.A.1
2. Demonstrate positive personal qualities such as flexibility, open-mindedness, initiative, active listening, and a willingness to learn. 3.A.2
3. Employ effective reading, writing, and technical documentation skills. 3.A.3
4. Solve problems using critical thinking techniques and structured troubleshooting methodologies. 3.A.4
5. Demonstrate leadership skills and collaborate effectively as a team member. 3.A.5
6. Implement safety procedures, including proper use of software and following privacy guidelines. 3.A.6
7. Exhibit an understanding of legal and ethical responsibilities in the healthcare field, following copyright laws and regulations. 3.A.7
8. Demonstrate time-management skills and the ability to prioritize tasks in a technical setting. 3.A.8

B **The student identifies various career pathways in the healthcare field. The student is expected to:** 3.B

1. Develop a career plan that includes the necessary education, certifications, job skills, and experience for specific roles in healthcare. 3.B.1
2. Create a professional resume and portfolio that reflects skills, projects, certifications, and recommendations. 3.B.2
3. Demonstrate effective interview skills for roles in healthcare fields. 3.B.3

C **The student develops technology and digital literacy skills. The student is expected to:** 3.C

1. Use technology as a tool for research, organization, communication, and problem-solving. 3.C.1
2. Use digital tools, including computers, mobile devices, collaboration platforms, and cloud services, to access, manage, and create information. 3.C.2
3. Demonstrate proficiency in using emerging and industry-standard technologies. 3.C.3

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4 Understand ethical and legal considerations for technology use, including the principles of data protection, copyright, and responsible technology use. 3.C.4

D The student integrates core academic skills into healthcare practices. The student is expected to: 3.D

1 Demonstrate the use of clear communication techniques, both written and verbal, that are consistent with industry standards. 3.D.1

2 Apply English concepts such as writing informative texts when documenting procedures and articulating goals. 3.D.2

3 Use mathematical concepts for measurement and conversion (Fahrenheit vs. Celsius), ratios and proportions, and fraction and decimal conversions. 3.D.3

E The student demonstrates introductory dispensing and nonsterile technical procedures (simulation). The student is expected to: 3.E

1 Accurately weigh and measure ingredients using balances and graduates in a classroom or science lab; achieve ±2% mass and ±5% volume accuracy across three consecutive trials. 3.E.1

2 Reconstitute simulated oral suspensions per written directions and produce labels with 100% of required elements (patient placeholder, drug name/strength, SIG, qty, BUD, initials, auxiliary labels). 3.E.2

3 Calculate quantity to dispense and days' supply from SIGs; achieve ≥90% accuracy on mixed-item calculation sets. 3.E.3

4 Complete reconstitution and cleaning logs with no critical omissions (date, time, lot/exp placeholders, initials). 3.E.4

5 Match brand and generic names for a curated Top 50 community medications (teacher list); achieve ≥90% on a timed matching assessment. 3.E.5

6 Produce a Top-50 SIG reference sheet (class artifact) and use it to decode 10 mixed prescriptions with 100% label-element accuracy. 3.E.6

F The student demonstrates intake, customer service, and workflow support (simulation). The student is expected to: 3.F

1 Conduct scripted and unscripted role-plays that verify two patient identifiers, capture allergies/insurance, and escalate clinical questions to the pharmacist role with zero critical HIPAA breaches. 3.F.1

2 Support OTC location requests by using a planogram and correctly categorizing at least 12 common OTCs; document pharmacist referral for red-flag symptoms using a standard template. 3.F.2

3 Differentiate pharmacy settings (community/chain/independent, mail-order, compounding, long-term care, hospital/health-system, nuclear, hospice, specialty, wholesaler/distributor) and describe two technician task differences for at least five settings. 3.F.3

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The student demonstrates inventory receiving, storage, and handling procedures simulation). The student is expected to: 3.G

1. Receive and store mock inventory using room/refrigerated/frozen requirements; maintain temperature logs within stated ranges for two weeks (no more than one minor deviation with corrective action). 3.G.1
2. Perform FEFO pulls and short-date checks; generate a daily pull list with 95% accuracy from a mixed shelf. 3.G.2

H The student demonstrates third-party and point-of-sale fundamentals (simulation). The student is expected to: 3.H

1. Complete paper or spreadsheet “claim” submissions, reversals, and coordination of benefits; resolve 3 of 3 common rejection types (ID mismatch, NDC not covered, refill too soon) using a decision tree. 3.H.1
2. Produce POS artifacts (receipt, leaflet, pharmacist-verification handoff form) with no missing signatures/initials. 3.H.2

I The student demonstrates medication safety and quality practices (simulation). The student is expected to: 3.I

1. Execute LASA drills and barcode checks achieving a ≥95% scan-verification rate on a randomized set; apply Tall Man lettering correctly on 10 of 10 designated pairs. 3.I.1
2. Select PPE and clean benches per SOP; pass a 5-item contamination-risk spot check (all correct). 3.I.2
3. Explain, at technician depth, how common antihistamines reduce symptoms and identify two sedation/interaction cautions that require pharmacist referral. 3.I.3