

<b>Program Outcomes Guide</b> 2017-20178 Academic Year
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**Program Title:** Pharmacy Technician, Certificate

**Date:** May, 2018

**Program Team:** Dr. Christina Nguyen, Instructor and Pharmacy Technician Program Coordinator

**Expected Learning Outcomes:**

1. The technician will demonstrate appropriate knowledge and understanding of pharmacy's role in the healthcare industry, including quality improvement processes that may be used to monitor pharmacy's ability to fulfill its responsibilities within a given healthcare system.
2. The technician will develop a working knowledge of the pharmaceutical and medical terms, abbreviations, and symbols commonly used in the prescribing, dispensing, administering, and charting of medications.
3. The technician will develop a working knowledge of the general chemical and physical properties of drugs handled in the manufacturing and packaging operations used in the delivery of pharmaceutical services.
4. The technician should be able to perform the arithmetical calculations required for the usual dosage determinations and solutions preparation.
5. The technician should be able to perform the essential functions relating to drug purchasing and inventory control.
6. The technician should demonstrate a working knowledge of drug dosages, routes of administration, and mechanical, automatic, or robotic drug delivery systems.
7. The technician should have a working knowledge of the procedures and operations relating to the manufacturing, packaging, and labeling of drug products.
8. The technician should have a working knowledge of the procedures and operations relating to aseptic compounding and parenteral admixture operations.
9. The technician should exhibit the ability to perform the usual technician functions associated with contemporary drug distribution systems.
10. The technician should have a thorough knowledge and understanding of the duties and responsibilities of pharmacy technicians, including standards of ethics governing pharmacy practice; as well as, duties as allowed in the state of Maryland, and how those duties may vary in other states, along with discussion required responsibilities of life-long learning required for maintaining certification.

**Assessment (How do or will students demonstrate achievement of each outcome?)**

Learning outcomes are assessed through a series of course level assessments given to students in the courses required for the program, specially, PHR101, PHR102, PHR103, PHR107, PHR110, PHR112, PHR113 and PHR269. Students must maintain a "C" or better in all program courses. Questions formulated in both formative and summative assessments will each be linked back to a student learning outcome for a specific course and also to the overall program learning outcomes. Additionally, upon completion of the program course requirements, individuals are eligible to sit for the Pharmacy Technician Certification Exam (PTCE).

**Validation (What methods have you used or will you use to validate your assessment?)**

1. Individual course formative and summative assessments
2. Graduate Survey results

3. Completion results
4. Pharmacy Technician Certification Exam pass rates

**Results (What do your assessment data show? If you have not yet assessed student achievement of your learning outcomes, when is assessment planned?)**

1. Individual course formative/summative assessments:

Course	Pass Rate	Course Average
PHR 101 Introduction to Pharmacy Technician	80%	86.48%
PHR 102 Pharmaceutical Calculations	88%	83.54%
PHR 103 Pharmacy Applications	100%	90.95%
PHR 107 Professionalism, Law and Ethics	100%	84.23%
PHR 110 Pharmacology and Therapeutics	50%	70.75%
PHR 112 Sterile Medication Preparation	No data	No data
PHR 113 Pharmacy Operations & Trends	100%	86.05%
PHR 269 Pharmacy Technician Workplace Experience	100%	100%

2. Graduate survey – one (1) student have completed all requirements and courses for the program
3. Overall pharmacy technician certificate program completion – one (1) student have completed all the program requirements/courses and one (1) student had withdrawn from the program.
4. Pharmacy Technician Certification Exam pass rates – No data collected.

**Follow-up (How have you used or how will you use the data to improve student learning?)**

Data collection and peer review by faculty and members of the pharmacy technician program advisory board committee will determine changes necessary in program teaching strategies and techniques to ensure students are meeting the outlined learning outcomes. The curriculum is reviewed to be sure that it is following the ASHP/ACPE accreditation standards for pharmacy technician education and training programs, specifically the curriculum must prepare students for practice as entry-level pharmacy technicians in a variety of contemporary settings and students must acquire knowledge, skills, and abilities needed for practice and successful completion of the Pharmacy Technician Certification Exam. Areas for improvement in the curriculum include medication order entry and fill process, pharmacology for technicians, pharmacy billing and reimbursement, pharmacy inventory management, pharmacy quality assurance and sterile and non-sterile compounding based on the Pharmacy Technician Certification Exam Advocate Summary Report. Additionally, the data collected, along with post-graduation tracing of student success is needed for internal and external validation.

**Budget Justification (What resources are necessary to improve student learning?)**

Continue to search for the proper pharmacy management programs.