

Course Outcomes Guide (COG)

Course Title: PHR 102 Pharmacy Calculations

Date: Spring, 2017

Course Team: Dawn Drooger

Expected Learning Outcomes

1. Define units of measure used in pharmacy practice;
2. Verify measurements, preparations, and/or packing of medications;
3. Perform mathematical calculations essential to the duties of a certified pharmacy technician in a variety of contemporary settings;
4. Accurately determine the correct amount of ingredients required for a compounded product;
5. Solve mathematical problems using Roman numerals, Arabic numerals, fractions, apothecary symbols, and decimals;
6. Solve mathematical problems involving conversion of weights and measures and direct ratio and proportion, using the proper techniques;
7. Solve problems involving specific gravity, percent strength, weight-in-volume, weight-in-weight, and volume-in-volume conversions;
8. Perform the mathematical steps required to solve problems involving ration strength calculations for pharmaceutical preparations;
9. Given mathematical problems involving dilution and concentration, perform the mathematical steps to solve for the correct answer;
10. Use the allegation and/or algebraic method to solve problems involving dilution and concentrations;
11. Apply critical thinking skills, creativity, and innovations to solve problems; and
12. Accomplish objectives mandated by the American Society of Health Systems Pharmacists (ASHP) for accredited pharmacy technician programs.

Assessment (How do or will students demonstrate achievement of each outcome? Please attach a copy of your assessment electronically.)

Outcomes are measured through written assignments, five (5) quizzes, and one (1) examination.

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

Assessments are validated automatically by online educational programs designed by the publishers of the course textbook. The instructor designs these assessments using items supplied by the textbook publisher. Completion of course with an average overall grade of “C” or greater.

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

Number of Students in Section	4
Number of Students Completing Final Comprehensive Examination	4
% Withdrawn	0
Average % Score on Section Examinations/Quizzes	65.41%
Average % Score on Examination	64.50%
Average % Score on Assignments	90.63%
Course Grade Distribution	A = 0
	B = 2
	C = 1
	F = 1
Average Course Grade	71.35%
% Student Success	75%

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

Assessments are continually edited to align item with course content and student learning outcomes.

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

None.