## **Course Outcomes Guide (COG)**

**Course Title:** PHR 112 Dispensing and Compounding Applications **Date:** Spring, 2017

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## **Expected Learning Outcomes**

1. Demonstrate an understanding of terminology associated with the sterile medication preparation;

- 2. Interpret prescription/medication orders and fill/prepare for dispensing medications correctly;
- 3. Demonstrate proficiency in pharmacy calculations;
- 4. Prepare sterile compounded preparations using aseptic technique and good compounding practices including syringes, minibags, TPN, LVP and SVPs, elastomeric, and proprietary IV systems;
- 5. Describe how USP <797> relates to sterile compounding and best compounding practices;
- 6. Demonstrate an understanding of hazardous drug handling, preparation, dispensing and destruction:
- 7. Exhibit an understanding of medication delivery systems, including ambulatory and pole mounted pumps;
- 8. Describe the process of selecting the appropriate medications for sterile compounding;
- 9. Demonstrate the correct hand washing and gowning procedures;
- 10. Describe the procedures and operations relating to the compounding, packaging, and labeling of drugs, including hazardous medications;
- 11. Manipulate automated compounding devices (ACDs) such as TPN compounders and repeater pumps, in compounding;
- 12. Exhibit an understanding of the correct manipulation of electronic balances, hot plate/magnetic stirrers, and standard laboratory equipment; and
- 13. Explain and demonstrate the procedures and techniques relating to aseptic technique;
- 14. Demonstrate sanitation and maintenance techniques to ensure cleanliness in the pharmacy compounding areas.

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

Outcomes are measured through seven (7) written assignments, six (6) quizzes and one (1) comprehensive examination and lab practicals.

**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	4
Comprehensive Examination	
% Withdrawn	0
Average % Score on Section	92.45%
Examinations/Quizzes	
Average % Score on Comprehensive	88.70%
Examination	
Average % Score on Assignments	99.19%
Average % Lab Practicals	100%
Course Grade Distribution	A = 4
	B = 0
	C = 0
Average Course Grade	94.45%
% Student Success	100%

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.