

Course Description

PTN0006 | Pharmacy Calculations | 3.00 credits

This is a course in Pharmacy Calculations. Students will learn to define systems of measurement, convert from one system to another, and calculate pharmacology problems. Prerequisite: HSC0003; corequisite: PTN0003

Course Competencies:

Competency 1: The student will demonstrate an understanding of measurement as it relates to pharmacy practice by:

1. Explaining the difference between a cubic centimeter and a milliliter
2. Converting measurements within the apothecary, avoirdupois, and metric systems
3. Describing the correct techniques for measuring individual doses of medication

Competency 2: The student will demonstrate an understanding of calculating techniques as they relate to community pharmacy practice by:

1. Describing the various techniques of preparing solutions, suspensions, elixirs, emulsions, and extracts
2. Calculating ratios, proportions, and percentages
3. Describing the correct techniques for counting individual doses of medication

Competency 3: The student will demonstrate a knowledge of pharmaceutical equipment as it relates to community pharmacy by:

1. Using common pharmaceutical weighing machinery
2. Using standard pharmaceutical volume measurement apparatus
3. Identifying automated medication dispensing equipment and its proper use

Competency 4: The student will demonstrate an understanding of extemporaneous compounding as it relates to community and hospital pharmacy settings by:

1. Calculating allegations, IV flow rates, dilutions, and concentrations
2. Describing the various compounding techniques to mix sterile and non-sterile compounds
3. Describing the correct ways to label and package the compounds

Learning Outcomes:

- Communicate effectively using listening, speaking, reading, and writing skills
- Use quantitative analytical skills to evaluate and process numerical data
- Solve problems using critical and creative thinking and scientific reasoning
- Formulate strategies to locate, evaluate, and apply information
- Use computer and emerging technologies effectively