PTEC 111 Calculations for Pharmacy Technicians

Credit Hours: 2 HRS

Scheduled hours per week

Lecture: 2 HRS
Lab: 0 HRS
Other: 0 HRS

Catalog Course Description: This course, designed for Pharmacy Technician students, includes reading, interpreting, and solving calculations problems encountered in the preparation and distribution of drugs. This course also discusses the conversion of measurement with the apothecary, avoirdupois, and metric systems with emphasis on the metric system of weight and volume. Topics include ratio and proportion, percentage, dilution, and concentration, milliequivalent, units, intravenous flow rates, and solving dosage problems.

Pre-requisites: PTEC 101, PTEC 112, MATH 120

Co-requisites: PTEC 111, PTEC 114, PTEC 121

Course learning Outcomes:

1. Apply the proper steps to convert, calculate, interpret prescriptions, solve pharmaceutical problems utilizing ratio-proportion and percentage strength.
2. Understand the principles of inventory control, cash management, third party billing and pricing.
3. Document calculations for prescription orders.
4. Interpret prescriptions to calculate drug dosages.

Topics to be studied:

1. Basic mathematics
2. Roman numerals and their conversion
3. Conversion factors
4. Algebra: utilizing proportions, ratio and percentages
5. Specialized pharmacy conversions
6. Dosage calculations
7. Drip rates for IV admixtures
8. Reductions and enlarging formulas as required in pharmacy
9. Calculation of desired strength which can be made from stock quantities
10. Applying strength ratios and percentages to prepare compounds or mixtures

Relationship of course to program outcomes:

The Course Learning Outcomes for PTEC 111 are congruent with, and derived from, the five (5) core competencies designated by the Pharmacy Technician Program: Professional Role, Knowledge and skills, Legal/ethical principles, and Communication. These core competencies are directly reflected in the Pharmacy Technician Program Educational Outcomes.

Relationship of Course to General Education Learning Outcomes:	
Composition and Rhetoric Students illustrate a fundamental understanding of the best practices of communicating in English and meet the writing standards of their college or program-based communication requirements.	X
Science & Technology Students successfully apply systematic methods of analysis to the natural and physical world, understand scientific knowledge as empirical, and refer to data as a basis for conclusions.	X
Mathematics & Quantitative Skills Students effectively use quantitative techniques and the practical application of numerical, symbolic, or spatial concepts.	X
Society, Diversity, & Connections Students demonstrate understanding of and a logical ability to successfully analyze human behavior, societal and political organization, or communication.	
Human Inquiry & the Past Students interpret historical events or philosophical perspectives by identifying patterns, applying analytical reasoning, employing methods of critical inquiry, or expanding problem-solving skills.	
The Arts & Creativity Students successfully articulate and apply methods and principles of critical and creative inquiry to the production or analysis of works of art.	
5/3/2016	

Special projects or requirements of the course:

- None

Additional information:

- Computer and internet access is required

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