

# Course Competency

## PTN 0006 PHARMACY CALCULATION

### Course Description

This course involves medical abbreviations, terminology, chemical symbols, formulas, and incompatibilities. Also included are defining systems of measurement, converting from one system to another and calculating pharmacology problems. (90 Contact Hours)

Course Competency	Learning Outcomes
<p><b>Competency 1:</b>The student will demonstrate an understanding of measurement as it relates to pharmacy practice by:</p>	<ol style="list-style-type: none"> <li>1. Numbers / Data</li> <li>2. Critical thinking</li> </ol>
<ol style="list-style-type: none"> <li>1. Explaining the difference between a cubic centimeter and a milliliter.</li> <li>2. Converting measurements within the apothecary, avoirdupois, and metric systems.</li> <li>3. Describing the correct techniques for measuring individual doses of medication.</li> </ol>	
<p><b>Competency 2:</b>The student will demonstrate an understanding of calculating techniques as they relate to community pharmacy practice by:</p>	<ol style="list-style-type: none"> <li>1. Numbers / Data</li> <li>2. Critical thinking</li> </ol>
<ol style="list-style-type: none"> <li>1. Describing the various techniques of preparing solutions, suspensions, elixirs, emulsions, and extracts.</li> <li>2. Calculating ratio, proportions, and percentages.</li> <li>3. Describing the correct techniques for counting individual doses of medication.</li> </ol>	
<p><b>Competency 3:</b>The student will demonstrate a knowledge of pharmaceutical equipment as it relates to community pharmacy by:</p>	<ol style="list-style-type: none"> <li>1. Communication</li> <li>2. Numbers / Data</li> <li>3. Critical thinking</li> <li>4. Computer / Technology Usage</li> </ol>

<ol style="list-style-type: none"> <li>1. Using common pharmaceutical weighing machinery.</li> <li>2. Using common pharmaceutical volume measurement apparatus.</li> <li>3. Identifying automated medication dispensing equipment and its proper use.</li> </ol>	
<p><b>Competency 4:</b> The student will demonstrate an understanding of extemporaneous compounding as it relates to community and hospital pharmacy settings by:</p>	<ol style="list-style-type: none"> <li>1. Numbers / Data</li> <li>2. Critical thinking</li> <li>3. Communication</li> <li>4. Information Literacy</li> <li>5. Computer / Technology Usage</li> </ol>
<ol style="list-style-type: none"> <li>1. Calculating alligations, IV flow rates, and dilutions and concentrations.</li> <li>2. Describing the various compounding techniques to mix sterile and non-sterile compounds.</li> <li>3. Describing the correct ways to label and package the compounds.</li> </ol>	

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