LEARNING OUTCOMES

1. **Drug factors.** Apply knowledge of the physical, chemical, pharmacologic, and formulation properties of drugs and relate how these properties influence drug parameters (such as kinetics, pharmacodynamics, stability, dosage form design, and treatment-related outcomes). Differentiate among the major therapeutic drug classes based on mechanisms of action, clinical use and adverse effects, contraindications, drug interactions, dosage forms, and dosing regimens.

2. **Patient factors.** Collect, integrate and apply knowledge of a patient’s biochemistry, anatomy, physiology, genomics, culture, socio-behavioral characteristics, and pathophysiologic states to develop an individualized patient care plan using drug factors that will improve therapeutic outcomes, minimize drug reactions, reduce adverse events, and increase adherence.

3. **Drug kinetics.** Design or modify dosage regimens using patient-specific or population pharmacokinetic data, plasma concentration-time profile of drugs, and factors that alter them.

4. **Product preparation.** Compound parenteral and non-parenteral drug products using appropriate calculations, pharmaceutical components, and techniques. Demonstrate a commitment to patient safety by assuring total accuracy in calculation, preparation, labeling and dispensing of prescription and medication orders.

5. **Teamwork.** Collaborate effectively with pharmacy colleagues, other healthcare professionals, scientists, and patients and/or their caregivers.

6. **Health disparities.** Identify causes of health disparities and incorporate principles of cultural awareness, sensitivity, and competence into plans to address these issues.

7. **Professional awareness.** Identify emerging health-related issues, products, and services and analyze their potential implications for: disease prevention and/or treatment services; management of human, physical, medical, information, and technological resources involved in providing patient care; and patient-specific and population-based therapeutic outcomes.