

PHARMACEUTICAL SCIENCES, B.S.

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.