

# PHARMACY, DPH

## LEARNING OUTCOMES

1. Information processing and provision: Retrieve, analyze, and interpret the professional and lay literatures and provide drug and health information (such as evidence-based drug information) to healthcare professionals and the public.
2. 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.
3. 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.
4. 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.
5. 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.
6. Communication: Communicate effectively in oral and written forms with patients, caregivers, healthcare professionals, and others. Demonstrate empathy, listening skills, and altruism in interactions.
7. Teamwork: Collaborate effectively with pharmacy colleagues, other healthcare professionals and patients and/or their caregivers.
8. Behavioral principles: Apply social and behavioral principles and theories in the design, delivery, and evaluation of pharmaceutical care.
9. Management principles: Use management principles to analyze and evaluate pharmacy operations and personnel, including optimizing physical and technological resources, to assure safe, efficient and effective management of medication distribution, control, and use systems.
10. Practice evaluation: Apply patient- and population-specific data, quality assurance strategies, and evaluation to develop and implement practice-based drug use strategies and public health policies to assure that medication use systems minimize drug misadventuring, optimize patient outcomes, and address public health problems.
11. Professional standards: Apply relevant legal, ethical, social, historical, economical, and professional principles to perform all professional activities.
12. Health disparities: Identify causes of health disparities and incorporate principles of cultural awareness, sensitivity, and competence into plans to address these issues in practice.
13. Public Health: Identify and address public health problems and promote health and wellness. Design individual and population-specific, evidence-based disease prevention and disease management programs (such as medication therapy management) and protocols based upon analysis of epidemiologic and pharmacoeconomic data, medication use criteria, medication use review, and risk reduction strategies.
14. 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.
15. Lifelong learning: Create and enhance a personal plan for continuing professional development to promote lifelong learning and ensure maintenance of professional competence.