

## **UC Irvine School of Pharmacy and Pharmaceutical Sciences**

### **Doctor of Pharmacy Program Learning Outcomes**

Adapted from the Center for the Advancement of Pharmacy Education (CAPE) 2013 Educational Outcomes.

#### **PLO Domain 1 – Foundational Knowledge**

**1.1. Learner (Learner)** - Develop, integrate, and apply knowledge from the foundational sciences (i.e., pharmaceutical, social/behavioral/administrative, and clinical sciences) to evaluate the scientific literature, explain drug action, solve therapeutic problems, and contribute knowledge to advance population health and patient-centered care.

##### **Learning Objectives**

- 1.1.1. Develop and demonstrate depth and breadth of knowledge in pharmaceutical, social/behavioral/administrative, and clinical sciences.
- 1.1.2. Articulate how knowledge in foundational sciences is integral to clinical reasoning; evaluation of future advances in medicine; supporting health and wellness initiatives; and delivery of contemporary pharmacy services
- 1.1.3. Integrate knowledge from foundational sciences to explain how specific drugs or drug classes work and evaluate their potential value in individuals and populations.
- 1.1.4. Apply knowledge in foundational sciences to solve therapeutic problems and advance patient-centered care.
- 1.1.5. Critically analyze scientific literature related to drugs and disease to enhance clinical decision making.
- 1.1.6. Identify and critically analyze emerging theories, information, and technologies that may impact patient-centered and population based care.
- 1.1.7. Design a research project, interpret results, and create a plan for dissemination and utilization of research results to contribute new knowledge.

#### **PLO Domain 2 – Essentials for Practice and Care**

**2.1. Patient-centered care (Caregiver)** - Provide patient-centered care as the medication expert (collect and interpret evidence, prioritize, formulate assessments and recommendations, implement, monitor and adjust plans, and document activities).

##### **Learning Objectives**

- 2.1.1. Collect subjective and objective evidence related to patient, medications, allergies/adverse reactions, disease, and other treatments and prevention modalities by performing patient assessment (including physical assessment) from chart/electronic health records, pharmacist records and patient/family interviews.
- 2.1.2. Interpret evidence and patient data.

- 2.1.3. Prioritize patient needs.
- 2.1.4. Formulate evidence-based care plans, assessments, and recommendations.
- 2.1.5. Implement patient care plans.
- 2.1.6. Monitor the patient and adjust care plan as needed.
- 2.1.7. Document patient care related activities.

**2.2. Medication use systems management (Manager)** - Manage patient healthcare needs using human, financial, technological, and physical resources to optimize the safety and efficacy of medication use systems.

Learning Objectives

- 2.2.1. Compare and contrast the components of typical medication use systems in different pharmacy practice settings.
- 2.2.2. Describe the role of the pharmacist in impacting the safety and efficacy of each component of a typical medication use system (i.e., procurement, storage, prescribing, transcription, dispensing, administration, monitoring, and documentation).
- 2.2.3. Utilize technology to optimize the medication use system.
- 2.2.4. Identify and utilize human, financial, and physical resources to optimize the medication use system.
- 2.2.5. Manage healthcare needs of patients during transitions of care.
- 2.2.6. Apply standards, guidelines, best practices, and established processes related to safe and effective medication use.
- 2.2.7. Utilize continuous quality improvement techniques in the medication use process.

**2.3. Health and wellness (Promoter)** - Design prevention, intervention, and educational strategies for individuals and communities to manage chronic disease and improve health and wellness.

Learning Objectives

- 2.3.1. Describe systematic preventive care, using risk assessment, risk reduction, screening, education, and immunizations.
- 2.3.2. Provide prevention, intervention, and educational strategies for individuals and communities to improve health and wellness.
- 2.3.3. Participate with interprofessional healthcare team members in the management of, and health promotion for, all patients.
- 2.3.4. Evaluate personal, social, economic, and environmental conditions to maximize health and wellness.

**2.4. Population-based care (Provider)** - Describe how population-based care influences patient-centered care and influences the development of practice guidelines and evidence-based best practices.

Learning Objectives

- 2.4.1. Assess the healthcare status and needs of a targeted patient population.
- 2.4.2. Develop and provide an evidence-based approach that considers the cost, care, access, and satisfaction needs of a targeted patient population.
- 2.4.3. Participate in population health management by evaluating and adjusting interventions to maximize health.

**PLO Domain 3 - Approach to Practice and Care**

**3.1. Problem Solving (Problem Solver)** – Identify problems; explore and prioritize potential strategies; and design, implement, and evaluate a viable solution.

Learning Objectives

- 3.1.1. Identify and define the primary problem.
- 3.1.2. Define goals and alternative goals.
- 3.1.3. Explore multiple solutions by organizing, prioritizing, and defending each possible solution.
- 3.1.4. Anticipate positive and negative outcomes by reviewing assumptions, inconsistencies, and unintended consequences.
- 3.1.5. Implement the most viable solution, including monitoring parameters, to measure intended and unintended consequences.
- 3.1.6. Reflect on the solution implemented and its effects to improve future performance.

**3.2. Educator (Educator)** – Educate all audiences by determining the most effective and enduring ways to impart information and assess understanding.

Learning Objectives

- 3.2.1. Conduct a learning needs assessment of constituents who would benefit from pharmacist-delivered education (e.g., patients/caregivers, technicians and interns, pharmacy students, fellow pharmacists, other healthcare providers, legislators).
- 3.2.2. Select the most effective techniques/strategies to achieve learning objectives.
- 3.2.3. Demonstrate the ability to coordinate educational efforts with other healthcare providers, when appropriate, to ensure a consistent, comprehensive, and team-based encounter.
- 3.2.4. Ensure instructional content contains the most current information relevant for the intended audience.
- 3.2.5. Adapt instruction and effectively deliver to the intended audience.

3.2.6. Assess audience comprehension.

**3.3. Patient Advocacy (Advocate)** - Assure that patients' best interests are represented.

Examples of Learning Objectives

- 3.3.1. Empower patients to take responsibility for, and control of, their health.
- 3.3.2. Assist patients in navigating the complex healthcare system.
- 3.3.3. Ensure patients obtain the resources and care required in an efficient and cost-effective manner (e.g., triage to social and/or other healthcare services).

**3.4. Interprofessional collaboration (Collaborator)** – Actively participate and engage as a healthcare team member by demonstrating mutual respect, understanding, and values to meet patient care needs.

Examples of Learning Objectives

- 3.4.1. Establish a climate of shared values and mutual respect necessary to meet patient care needs.
- 3.4.2. Define clear roles and responsibilities for team members to optimize outcomes for specific patient care encounters.
- 3.4.3. Communicate in a manner that values team-based decision making and shows respect for contributions from other areas of expertise.
- 3.4.4. Foster accountability and leverage expertise to form a highly functioning team (one that includes the patient, family, and community) and promote shared patient-centered problem solving.

**3.5. Cultural sensitivity (Included)** - Recognize social determinants of health to diminish disparities and inequities in access to quality care.

Examples of Learning Objectives

- 3.5.1. Recognize the collective identity and norms of different cultures without overgeneralizing (i.e., recognize and avoid biases and stereotyping).
- 3.5.2. Demonstrate an attitude that is respectful of different cultures.
- 3.5.3. Assess a patient's health literacy and modify communication strategies to meet the patient's needs.
- 3.5.4. Safely and appropriately incorporate patients' cultural beliefs and practices, community realities, and available resources into health and wellness care plans.

**3.6. Communication (Communicator)** – Effectively communicate verbally and nonverbally when interacting with an individual, group, or organization.

### Learning Objectives

- 3.6.1. Interview patients using an organized structure, specific questioning techniques (e.g., motivational interviewing), and medical terminology adapted for the audience.
- 3.6.2. Actively listen and ask appropriate open and closed-ended questions to gather information.
- 3.6.3. Use available technology and other media to assist with communication as appropriate.
- 3.6.4. Use effective interpersonal skills to establish rapport and build trusting relationships.
- 3.6.5. Communicate assertively, persuasively, confidently, and clearly.
- 3.6.6. Demonstrate empathy when interacting with others.
- 3.6.7. Deliver and obtain feedback to assess learning and promote goal setting and goal attainment.
- 3.6.8. Develop professional documents pertinent to organizational needs (e.g., monographs, policy documents).
- 3.6.9. Document patient care activities clearly, concisely, and accurately using appropriate medical terminology.

### **PLO Domain 4 – Personal and Professional Development**

**4.1. Self-awareness (Self-aware)** – Examine and reflect on personal knowledge, skills, abilities, beliefs, biases, motivation, and emotions that could enhance or limit personal and professional growth.

### Learning Objectives

- 4.1.1. Use metacognition to regulate one's own thinking and learning.
- 4.1.2. Maintain self-motivation, attention, and interest (e.g., habits of mind) during learning and work-related activities.
- 4.1.3. Identify, create, implement, evaluate and modify plans for personal and professional development for the purpose of individual growth.
- 4.1.4. Approach tasks with a desire to learn.
- 4.1.5. Demonstrate persistence and flexibility in all situations; engaging in help seeking behavior when appropriate.
- 4.1.6. Strive for accuracy and precision by displaying a willingness to recognize, correct, and learn from errors.
- 4.1.7. Use constructive coping strategies to manage stress and build resilience.
- 4.1.8. Seek personal, professional, or academic support to address personal limitations.
- 4.1.9. Display positive attitudes, self-esteem, and confidence when working with others.

**4.2. Leadership (Leader)** - Demonstrate responsibility for creating and achieving shared goals, regardless of position.

Learning Objectives

- 4.2.1. Identify characteristics that reflect leadership versus management.
- 4.2.2. Identify the history (e.g., successes and challenges) of a team before implementing changes.
- 4.2.3. Develop relationships, value diverse opinions, demonstrate humility, and understand individual strengths and weaknesses to promote teamwork.
- 4.2.4. Persuasively communicate goals to the team to help build consensus.
- 4.2.5. Empower team members by actively listening, gathering input or feedback, and fostering collaboration.
- 4.2.6. Demonstrate rational and timely decision-making.

**4.3. Innovation and Entrepreneurship (Innovator)** - Engage in innovative activities by using creative thinking to envision better ways of accomplishing professional goals.

Learning Objectives

- 4.3.1. Demonstrate initiative when confronted with challenges.
- 4.3.2. Develop new ideas and approaches to improve quality or overcome barriers to advance the profession.
- 4.3.3. Demonstrate creative decision making when confronted with novel problems or challenges.
- 4.3.4. Assess personal strengths and weaknesses in entrepreneurial skills.
- 4.3.5. Apply entrepreneurial skills within a simulated entrepreneurial activity.
- 4.3.6. Conduct a risk-benefit analysis for implementation of an innovative idea or simulated entrepreneurial activity.

**4.4. Professionalism (Professional)** - Exhibit behaviors and values that are consistent with the trust given to the profession by patients, other healthcare providers, and society.

Learning Objectives

- 4.4.1. Demonstrate altruism, integrity, trustworthiness, flexibility, and respect in all interactions.
- 4.4.2. Display preparation, initiative, and accountability consistent with a commitment to excellence.
- 4.4.3. Deliver patient-centered care in a manner that is legal, ethical, and compassionate.
- 4.4.4. Recognize that one's professionalism is constantly evaluated by others.
- 4.4.5. Engage in the profession of pharmacy by demonstrating a commitment to its continual improvement.