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).

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.