



Student Learning Outcome Expectations for the Doctor of Pharmacy Program

Standard 12 of the American Council of Pharmacy Education (ACPE) standards outlines the professional pharmacist competencies that must be met by all Doctor of Pharmacy (PharmD) graduates. These competencies are based on the American Association of Colleges of Pharmacy's (AACP), Center for Advancement of Pharmaceutical Education (CAPE) 2004 Educational Outcomes.

ACPE Professional Pharmacist Competencies

- 1. Provide patient care in cooperation with patients, prescribers, and other members of an interprofessional health care team based upon sound therapeutic principles and evidence-based data, taking into account relevant legal, ethical, social, cultural, economic, and professional issues, emerging technologies, and evolving biomedical, pharmaceutical, social/behavioral/administrative, and clinical sciences that may impact therapeutic outcomes.*
- 2. Manage and use resources of the health care system, in cooperation with patients, prescribers, other health care providers, and administrative and supportive personnel, to promote health; to provide, assess, and coordinate safe, accurate, and time-sensitive medication distribution; and to improve therapeutic outcomes of medication use.*
- 3. Promote health improvement, wellness, and disease prevention in cooperation with patients, communities, at-risk populations, and other members of an interprofessional team of health care providers.*

In accordance with the ACPE standard 12, these professional pharmacist competencies were used to guide the development of student learning outcome expectations (ability-based outcomes) for the PharmD program by the Sullivan University College of Pharmacy (SUCOP). These **program-level, ability-based outcomes** describe the minimal set of abilities that a graduate should be able to do as a result of the integration of knowledge, skills, and attitudes gained by completion of the curriculum as a whole. Key resources used in the development of the outcomes are provided in Appendix A. Also, to assist with understanding of terms used in the outcomes, a glossary is provided in Appendix B.

SUCOP Student Learning Outcome Expectations

Outcome Area 1: Graduates have the ability to provide patient care in cooperation with patients, prescribers, and other members of an interprofessional health care team based upon sound therapeutic principles and evidence-based data, taking into account relevant legal, ethical, social, cultural, economic, and professional issues, emerging technologies, and evolving biomedical, pharmaceutical, social/behavioral/administrative, and clinical sciences that may impact therapeutic outcomes.

Program-Level, Ability-Based Outcomes

Graduates are able to achieve Outcome Area 1 by their ability to:

- 1.1 Conduct a complete patient assessment including history, physical assessment, and review of patient record in diverse practice settings and patient populations.
- 1.2 Prioritize health related issues for each patient by designing and implementing an evidence-based patient-centered care plan to identify and manage any health related problems taking into account the patient's health literacy, cultural diversity, behavioral psychosocial issues, and economic issues.
- 1.3 Monitor and evaluate a patient's response to therapy and adjust patient-centered care plans using evidence-based practice.
- 1.4 Develop and implement population-specific, evidence-based care programs based upon analysis of epidemiologic and pharmaco-economic data.
- 1.5 Retrieve, analyze, interpret, and apply relevant literature as needed to support patient care.
- 1.6 Communicate and collaborate with patients, patients' agents, and/or health care providers through a variety of methods appropriate for a given situation to optimize care and document all components thereof.
- 1.7 Provide patient-centered care in accordance with legal, ethical, social, economic, and professional guidelines.
- 1.8 Assure safe and accurate evaluation of written and verbal prescriptions of medications and medical products in a professional manner.

- 1.9 Exhibit and model professional behavior.
 - 1.9.1 Establish and maintain covenantal relationships with patients in a caring, compassionate, and confidential manner.
 - 1.9.2 Respect the autonomy and dignity of each patient.
 - 1.9.3 Act with respect, honesty, and integrity in all professional matters.
 - 1.9.4 Demonstrate an ongoing commitment to life-long learning by identifying and analyzing emerging issues, technology, medications, medical products, and services.

Outcome Area 2: Graduates have the ability to manage and use resources of the health care system, in cooperation with patients, prescribers, other health care providers, and administrative and supportive personnel, to promote health; to provide, assess, and coordinate safe, accurate, and time-sensitive medication distribution; and to improve therapeutic outcomes of medication use.

Program-Level, Ability-Based Outcomes

Graduates are able to achieve Outcome Area 2 by their ability to:

- 2.1 Assure safe and accurate compounding, preparation and dispensing of medications and medical products.
- 2.2 Evaluate and participate in the management and use of healthcare resources.
- 2.3 Evaluate and apply advancements in pharmacy informatics to optimize safety and therapeutic outcomes of medication and medical product use.
- 2.4 Develop and implement medication use criteria by conducting and analyzing medication use reviews and risk-reduction strategies.
- 2.5 Analyze the formulary process and write a formulary review using appropriate data and supporting literature.
- 2.6 Identify, evaluate, trend, and describe or recommend corrective action or actions in medication safety and systems operations.

- 2.7 Utilize leadership and management principles in regards to pharmacy operations and personnel issues.
- 2.8 Apply outcomes research and continuous quality improvement methods to evaluate health care services.
- 2.9 Act in accordance with legal, ethical, social, economic, risk management and professional guidelines.

Outcome Area 3: Graduates have the ability to promote health improvement, wellness, and disease prevention in cooperation with patients, communities, at-risk populations, and other members of an interprofessional team of health care providers.

Program-Level, Ability-Based Outcomes

Graduates are able to achieve Outcome Area 3 by their ability to:

- 3.1 Apply population-specific data, quality improvement strategies, informatics, and research processes to identify and solve public health problems.
- 3.2 In collaboration with other healthcare professionals, advocate and implement public health policies that increase access to public health services and reduce health related risks.
- 3.3 Educate the public and health-care professionals regarding medical conditions, wellness, medication use, disease prevention, and the availability of health care resources.

Appendix A: Bibliography

Accreditation Standards and Guidelines for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree. Accreditation Council for Pharmacy Education. January 15, 2006

Center for the Advancement of Pharmaceutical Education (CAPE) Educational Outcomes 2004. American Association of Colleges of Pharmacy. 2004

Code of Ethics for Pharmacists. American Pharmacists Association. 1994

NAPLEX Blueprint. National Association of Boards of Pharmacy. 2004

Zlatic TD, Abilities-Based Assessment Within Pharmacy Education: Preparing Students for Practice of Pharmaceutical Care. *Journal of Pharmacy Teaching* 2000;7:5-27.

Appendix 2: Glossary

Ability: What students can do as a result of complex integrations of knowledge, skills, and attitudes.

Attitude: A complex mental state involving beliefs, feelings, and values and dispositions to act in certain ways (e.g., exhibit empathy).

Covenantal relationship: Professional obligation between a pharmacist and a patient characterized by reciprocity between the two parties. "Considering the patient pharmacist relationship as a covenant means that a pharmacist has moral obligations in response to the gift of trust received from society. In return for this gift, a pharmacist promises to help individuals achieve optimum benefit from their medications, to be committed to their welfare, and to maintain their trust." (Quotation from APhA Code of Ethics for Pharmacists.)

Evidence-based practice: An approach to pharmacy practice and teaching that integrates knowledge, caregiver experience, and patient preferences with valid and current clinical research evidence.

Knowledge: Acquired information necessary to perform the functions of an entry level pharmacist (e.g., pharmacology).

Medication use system: The structure and processes of the "system" within which medications are used, including the prescribing, order processing, dispensing, administration, and monitoring of a medication's effects.

Outcome: The results associated with instructional experiences.

Ability-based outcomes: Statements describing what students will be able to do as a result of the integration of knowledge, skills, and attitudes gained from their instructional experiences.

Course-level, ability-based outcomes: Statements describing what students will be able to do as a result of the integration of knowledge, skills, and attitudes gained from completion of a course.

Program-level, ability-based outcomes: Statements describing what students will be able to do as a result of the integration of knowledge, skills, and attitudes gained from completion of the curriculum as a whole.

Patient-centered care: A practice of pharmacy in which the pharmacy practitioner assumes responsibility for a patient's medication-related needs and is

held accountable for this commitment (i.e. medication therapy management, disease state management, etc.).

Population-specific care program: A care program set up based on the needs of a specific group or groups of patients.

Skill: The ability to perform a task, usually gained through experience & training (e.g., taking a blood pressure).