



UNIVERSITY OF MARYLAND

SCHOOL OF PHARMACY

GENERAL ABILITIES: The following statements describe general abilities required for a well educated pharmacist. Throughout our curriculum, faculty will engage students in a series of activities (curricular and extracurricular) that foster continued development of these general abilities.

GA 1: Thinking Abilities

The student shall find, understand, analyze, evaluate, and synthesize information and shall make informed, rational, and ethical decisions.

GA 1.1: Level 1: Understand critical thinking processes and apply them at basic levels.

GA 1.2: Level 2: Identify and analyze ideas and problems of increasing complexity, generate defensible solutions, and establish criteria for evaluation of solutions.

GA 1.3: Level 3: Make decisions regarding complex problems that require an integration of one's ideas and values within a context of scientific, social, cultural, and ethical issues.

GA 2: Communication Abilities

The student shall read, write, speak, listen and use data, media and computers to communicate effectively with various audiences for a variety of purposes.

GA 2.1: Level 1: Demonstrate basic communication skills and assess the quality of one's communication performance in situations involving reading, listening, writing, speaking, aesthetic forms of communication (e.g. literature, art, theater, music) and use of data, media, and computers.

GA 2.2: Level 2: Demonstrate improvement in basic communication skills and exhibit creativity in communication situations through the use of reading, listening, writing, speaking, aesthetic forms of communication, and use of data, media and computers.

GA 2.3: Level 3: Communicate effectively using a variety of methods (i.e. reading, listening, writing, speaking, aesthetic forms of communication, and use of data, media and computers) and with a variety of target audiences.

GA 3: Self-Learning Abilities and Habits

The student shall demonstrate the ability and inclination to learn on one's own, to pursue new knowledge, to self-assess, to respond appropriately to assessment by others, and to modify one's ideas in light of new discoveries.

GA 3.1: Level 1: Maximize learning through the use of effective personal learning strategies.

GA 3.2: Level 2: Improve personal performance through assessments by self and others.

GA 3.3: Level 3: Complete learning activities on an ongoing basis for personal and professional development based upon self-determined areas of deficiency and/or interest.

GA 4: Values and Ethics

The student shall articulate the influence of values on ideas and actions and shall demonstrate the ability and inclination to take personal responsibility for ethical conduct in personal and professional settings.

GA 4.1: Level 1: Recognize the role of values in personal and professional interactions.

GA 4.2: Level 2: Evaluate personal and professional conduct according to ethical theories and principles.

GA 4.3: Level 3: Adopt or construct ethical principles and use them as a guide for one's actions.

GA 5: Social Awareness and Social Responsibility

The student shall demonstrate an understanding of self, the strengths and challenges of cultural diversity and the historic responses of society in times of rapid change.

GA 5.1: Level 1: Explain differences of opinion and approach in social, cultural, historical, economic, political and scientific issues in a given society.

GA 5.2: Level 2: Explain how social, historical, economic, political and scientific issues affect human behavior and events.

GA 5.3: Level 3: Adapt professional practice to a changing society and changing societal expectations for pharmacists.

GA 6: Social Interaction and Citizenship

The student shall demonstrate effective interpersonal and inter-group behaviors in a variety of situations and circumstances.

GA 6.1: Level 1: Identify interaction behaviors that are essential for maximum personal effectiveness in interpersonal, inter-group and leadership situations.

GA 6.2: Level 2: Function effectively in interpersonal, inter-group and leadership situations.

GA 6.3: Level 3: Apply personal interaction behaviors within professional and civic situations.

GA 7: Information Literacy

The student shall recognize when information is needed and be able to locate, evaluate, and use appropriate resources to meet the information need in an effective and ethical way

GA 7.1: Level 1: Recognize when information is needed and formulate a research question to meet the information need.

GA 7.2: Level 2: Access information using appropriate resources, effective searching, and analytical skills.

GA 7.3: Level 3: Critically evaluate, synthesize, and use information.

GA 8: Cultural Competency

The student shall possess an awareness of how culture impacts interpersonal and inter-group interactions and shall demonstrate effective behaviors to work in cross-cultural environments.

GA 8.1: Level 1: Recognize one's own cultural practices and behaviors

GA 8.2: Level 2: Accept and respect differences among people who have different customs, thoughts, ways of communicating, traditions, and institutions.

GA 8.3: Level 3: Develop behaviors and attitudes to work effectively in cross-cultural situations; transform one's knowledge of individuals and groups of people to increase the quality of services and improve outcomes.

TERMINAL PERFORMANCE OUTCOMES: The following statements describe specific abilities all pharmacists are expected to competently perform in order to fulfill their professional responsibilities. Throughout our curriculum, faculty will engage students in a series of learning activities that will foster the development of these abilities. Each student must demonstrate that she or he possesses these abilities prior to graduation.

TPO 1: *Participate in the development of patient-specific therapeutic plans*

- **TPO 1.1:** Compile and evaluate patient-specific information
- **TPO 1.2:** Collaborate with physicians, other prescribers, patients, and caregivers to:
 - **TPO 1.2.1:** establish therapeutic objectives
 - **TPO 1.2.2:** select an appropriate drug regimen to achieve the therapeutic objective(s)
 - **TPO 1.2.3:** determine the dose and dosage schedule
 - **TPO 1.2.4:** assess an existing drug regimen and recommend modifications

TPO 2: *Select the appropriate dosage form, formulation, route of drug administration, and /or drug delivery system*

- **TPO 2.1:** Collaborate with physicians, other prescribers, patients, and caregivers to select the most appropriate dosage form to achieve the therapeutic objective(s)
- **TPO 2.2:** Select the route and method of drug administration

TPO 3: *Provide drug products to patients*

- **TPO 3.1:** Oversee a drug delivery system that provides drug products to patients in a timely, safe, and efficient manner
- **TPO 3.2:** Ensure the security, integrity, and proper storage of drug products

TPO 4: *Use technology effectively to carry out professional functions*

- **TPO 4.1:** Use technologies to safely and efficiently prepare and deliver drug products to patients
- **TPO 4.2:** Use technologies to store and retrieve information
- **TPO 4.3:** Use technologies to perform patient monitoring activities

TPO 5: *Prepare medications for patient use*

- **TPO 5.1:** Ensure that drug products are labeled appropriately
- **TPO 5.2:** Employ professional practice standards to compound the most commonly prescribed drug products in acute (e.g. IV admixtures, total parenteral nutrition) and chronic care (e.g. oral suspensions, topical preparations) settings

TPO 6: *Educate patients regarding patient-specific therapeutic plans*

- **TPO 6.1:** Communicate with patients and caregivers to assure they understand the importance, nature, and scope of the therapeutic plan(s) being recommended
- **TPO 6.2:** Communicate with patients and caregivers to inform them about the potential benefits and risks of the therapeutic plan(s) being recommended
- **TPO 6.3:** Determine if patients and caregivers are able to appropriately use (including administration techniques) the drug regimen included in their therapeutic plan(s)

TPO 7: *Administer drug products to patients*

- **TPO 7.1:** Employ professional practice standards to administer drug products to patients.

TPO 8: *Perform basic life support measures and triage patients*

- **TPO 8.1:** Achieve and maintain certification in first aid and cardiopulmonary resuscitation (CPR)
- **TPO 8.2:** Recognize situations which are beyond one's own scope of practice or professional competence
- **TPO 8.3:** Refer patients to other health care professionals or institutions for advanced levels of care

TPO 9: *Maximize appropriate drug use behaviors*

- **TPO 9.1:** Determine the extent to patients adhere with their therapeutic plan(s) including recommended drug regimens

- **TPO 9.2:** Determine whether patients engage in and use appropriate techniques to perform self-monitoring activities as part of their therapeutic plan(s)
- **TPO 9.3:** Identify the root cause(s) that prevent patients from engaging in optimal drug use behaviors
- **TPO 9.4:** Influence patients to improve adherence to recommended lifestyle behaviors, drug regimens, and self-monitoring

TPO 10: *Participate in the process of monitoring patient outcomes*

- **TPO 10.1:** Collaborate with physicians, other prescribers, patients, and caregivers to:
 - **TPO 10.1.1:** develop monitoring plans to determine if the therapeutic objective(s) is being achieved
 - **TPO 10.1.2:** develop monitoring plans to detect adverse drug effects
 - **TPO 10.1.3:** evaluate the actual or potential impact of drug-drug and drug-food interactions on patient outcomes
- **TPO 10.2:** Collaborate in the patient monitoring process by:
 - **TPO 10.2.1:** interviewing patients to determine if the therapeutic objectives are being achieved or if the patient is experiencing an adverse drug effect
 - **TPO 10.2.2:** performing targeted physical examinations (e.g. vital signs, visual inspection) to determine if the therapeutic objectives are being achieved or if the patient is experiencing an adverse drug effect
 - **TPO 10.2.3:** Record patient-specific monitoring data in an organized manner using appropriate medical terminology

TPO 11: *Answer patient-specific questions*

- **TPO 11.1:** Identify appropriate sources of information and evaluate primary literature to synthesize answers to patient-specific questions
- **TPO 11.2:** Communicate information to physicians, other prescribers, patients, and caregivers in a timely and effective manner

TPO 12: *Identify payment sources and mechanisms for professional services and products*

- **TPO 12.1:** Use electronic payment systems effectively to receive payment for professional services and products
- **TPO 12.2:** Identify codes that describe the most common professional services provided by pharmacists

TPO 13: *Participate in quality assurance processes related to drug use*

- **TPO 13.1:** Participate in and perform drug use evaluations
- **TPO 13.2:** Identify the root cause(s) of patient safety problems related to drug use
- **TPO 13.3:** Recommend changes in the drug use system to optimize patient outcomes

TPO 14: *Participate in health education*

- **TPO 14.1:** Respond to general drug information requests from patients, health professionals, and lay media
- **TPO 14.2:** Prepare and deliver educational programs to lay audiences regarding health promotion and appropriate drug use
- **TPO 14.3:** Prepare and deliver educational programs to health professionals regarding drug therapy

TPO 15: *Participate in health policy decision-making processes related to drug use*

- **TPO 15.1:** Identify appropriate sources of information, analyze data, and evaluate primary literature to assist policy makers and prescribers with making well-informed decisions about drug therapy

TPO 16: *Maintain professional competence*

- **TPO 16.1:** Identify and analyze emerging issues, products, and services related to drug therapy and health
- **TPO 16.2:** Carry out responsibilities in accordance with legal, ethical, social, economic, and professional norms
- **TPO 16.3:** Demonstrate self-awareness, identify self-learning needs, and engage in a process of continual professional development