

# PHA5761 General Medicine

## Advanced Pharmacy Practice Experience

Spring, Summer, and Fall Semesters

6 Credit Hours – A-E Grading

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*The purpose of the General Medicine Advanced Pharmacy Practice Experience is to provide opportunities for students to build on knowledge and skills acquired through didactic education and introductory pharmacy practice experiences and apply them in direct patient care activities in the adult general medicine setting. This course takes place in a general medicine unit where patients are managed using a team-based approach. Members of the healthcare team may include pharmacists, physicians, nurses, and other providers. Students will utilize the pharmacist's patient care process in the care of patients. They may participate in rounds with a healthcare team, obtain medication histories, identify medication-related problems, resolve drug therapy problems, consult with prescribers, monitor patient outcomes, and provide educational sessions for the professional staff.*

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### Teaching Partnership Leader

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### Entrustable Professional Activities

This course prepares you to perform the following activities, which the public entrusts a Pharmacist to perform:

1. Collect information to identify a patient's medication-related problems and health-related needs.
2. Analyze information to determine the effect of medication therapy, identify medication-related problems, and prioritize health-related needs.
3. Establish patient-centered goals and create a care plan for a patient in collaboration with the patient, caregiver(s), and other health professionals that is evidence-based and cost-effective.

4. Follow-up and monitor a care plan.
5. Implement a care plan in collaboration with the patient, caregivers, and other health professionals.
6. Collaborate as a member of an interprofessional team.

## Course-Level Objectives

Upon completion of this course, the student will be able to:

1. Apply elements of the Pharmacist's Patient Care Process in patient care activities, including the following:
  - a. Collect: Gather subjective and objective information in order to understand the relevant medical and medication history and clinical status of the patient.
  - b. Assess: Assess the information collected and analyze the clinical effects of therapy in the context of the patient's overall health goals in order to identify and prioritize problems and achieve optimal care.
  - c. Plan: Develop an individualized patient-centered care plan that addresses medication-related problems in collaboration with other health care professionals and the patient/caregiver.
  - d. Implement: Implement the care plan in collaboration with other health care professionals and the patient/caregiver.
  - e. Follow-up: Monitor and evaluate the effectiveness of the care plan and modify the plan in collaboration with other health care professionals and the patient/care giver.
2. Formulate a concise and evidence-based patient-centered care plan in collaboration with other health care professionals, patients, and/or their caregivers, which considers the patient's health literacy, culture, and psychosocial factors.
3. Collaborate as a member of the interprofessional team.
4. Ensure continuity of high-quality care as a patient transitions between healthcare settings.
5. Prepare an accurate, concise, and organized written pharmacist patient care plan.
6. Identify, report, and analyze medication errors and adverse drug reactions to identify preventable cause and remedial preventive actions.
7. Communicate with patients, families, and other health professionals in a responsive and responsible manner that supports a team approach to health care.
8. Communicate verbally with another health care professional about the appropriateness of a patient's pharmacotherapy in a succinct, organized, and accurate manner.
9. Deliver a formal oral presentation to a group of peers and/or other healthcare professionals, e.g., in-service, journal club, formal case presentation.
10. Demonstrate the ability to assimilate and apply basic, clinical, and social science knowledge in the care of patients and resolution of practice problems.
11. Apply critical thinking and clinical reasoning when solving patient-specific problems and general practice problems.

12. Provide evidence-based patient care through the retrieval, evaluation and application of findings from the scientific and clinical literature.
13. Demonstrate professional behaviors and attitudes expected of a pharmacist.
14. Demonstrate cultural sensitivity during interactions with patients, families, providers, and staff.
15. Demonstrate ethical behaviors that are essential to the practice of pharmacy.
16. Adhere to legal requirements in pharmacy practice.
17. Additional objectives may be required by site and/or preceptor.

## Course Pre-Requisites

1. Successful completion of all Year 1, 2, and 3 Pharm.D. program coursework including milestones.
2. Satisfactory completion of Blocks 16, 17, and 18
3. Preceptor may require additional pre-requisites.

## Course Co-Requisites

1. None

## Interprofessional Experiences

Student will participate in meaningful interprofessional activities on a healthcare team in both patient care and non-patient care settings.

Interprofessional experience opportunities allow students to:

- Engage in collaborative patient care decision making with members of an interprofessional healthcare team with an emphasis on face-to-face interactions, but also incorporating other communication options.
- Work face-to-face as a member of a collaborative, interprofessional team (i.e., rounding, quality improvement team).
- Identify, evaluate, communicate to healthcare team members the appropriateness of patient specific pharmacotherapeutic agents, dosing regimens, dosage forms, routes of administration, delivery systems, etc.

## Pre-Rotation Requirements for Student

Students are responsible for completing requirements set forth by the University of Florida, College of Pharmacy. Certain sites may have additional requirements. Students are responsible for contacting

preceptors in advance of the start of their rotation to inquire about additional requirements. A grade deduction of 5% will apply for late or missing requirements.

## Sample Course Calendar

The following calendar is a sample of the weekly activities students might experience. The rotation preceptor will provide students with a weekly schedule while on rotation.

Week	Monday	Tuesday	Wednesday	Thursday	Friday
1	Orientation	Patient care activities	Patient care Topic discussion 1	Patient care SOAP note 1 due	Patient care activities
2	Patient care Topic discussion 2	Patient care activities	Patient care Journal Club	Patient care SOAP note 2 due	Patient care activities
3	Patient care activities	Drug Info 1 due	Patient care Topic discussion 3	Patient care SOAP note 3 due	Midpoint Evaluation
4	Patient care Topic discussion 4	Patient care activities	Patient care In-service	Patient care SOAP note 4 due	Patient care activities
5	Patient care activities	Drug info 2 due	Patient care Topic discussion 5	Patient care SOAP note 5 due	Patient care activities
6	Patient care Topic discussion 6	Patient care activities	Final Case	SOAP note 6 due	Final Evaluation

## Required Course Activities

To achieve the learning objectives, students completing the General Medicine Advanced Pharmacy Practice Experience must complete the following activities/assignments:

1. Participate in patient care or interprofessional care team rounds. (objective 1-5, 7, 8, 11-16)
2. Prepare one formal SOAP note/progress note each week. (objective 1, 2, 3, 5, 10, 11, 12)
3. Present at least one formal patient case presentation, including analysis and interpretation of the primary medical literature as it applies to the patient case. (objective 9, 10, 11, 12)
4. Discuss with the preceptor the treatment, monitoring, and outcomes of the majority of the following common general medicine conditions, with discussions based on actual or simulated patient cases and/or drug therapy problems (objective 1, 10, 11):
  - a. Anticoagulation and venous thromboembolism
  - b. Chronic obstructive pulmonary disease/asthma

- c. Community-acquired and healthcare-associated pneumonia
  - d. Congestive heart failure
  - e. Coronary artery disease
  - f. Diabetes
  - g. Hepatic Disorders
  - h. HIV/Oppportunistic Infections
  - i. Hypertension, including hypertensive emergency/urgency
  - j. Myocardial infarction
  - k. Renal Failure/End Stage Renal Disease
  - l. Skin and Soft Tissue Infections
  - m. Stroke/transient ischemic attack
5. Participate in therapeutic drug monitoring activities, including (objective 1, 2, 3, 5, 7, 8, 10):
    - a. Application of pharmacokinetic dosing principles to drugs in the following classes, as applicable to the institution: antibiotics, anticonvulsants, and/or immunosuppressants for organ transplant rejection; and
    - b. Recommendation of dosing adjustments for renal and hepatic impairment
  6. Conduct or present at least one literature evaluation, including analysis and interpretation of the primary medical literature. (objective 9 and 12)
  7. Complete at least two written drug information responses using appropriate institutional documentation or the Clinically Answerable Question Intake/Tracking Form. (objective 10, 11, 12)
  8. Present one in-service to pharmacy, nursing, or medical staff. (objective 9)
  9. Discuss briefly the Pharmacists' Patient Care Process (PPCP) with your preceptor to learn how they implement PPCP in their practice (objective 1).
  10. Review your Curriculum Vitae (CV) with your preceptor and request feedback (objective 13).
  11. Discuss briefly career planning with your preceptor to learn about preceptor's professional progression and seek guidance on achieving your professional goals (objective 13).
  12. Preceptors may require additional activities or assignments.

## Required Textbooks/Readings

There are no required textbooks for this course. Individual preceptors may require additional readings such as clinical guidelines, review articles, book chapters, or websites. Please contact your preceptor regarding required or recommended readings for this course.

- Use UF VPN to access UF Libraries Resources when off-campus at this URL: <https://curriculum.pharmacy.ufl.edu/current-students/technical-help/>
- The UF HSC library staff can assist you with questions or issues related to accessing online library materials. For assistance contact your College of Pharmacy librarian or visit the HSC Library Website at this URL: <http://www.library.health.ufl.edu/>

## Suggested Textbooks/Readings

Individual preceptors may suggest additional readings such as clinical guidelines, review articles, book chapters, or websites. Please contact your preceptor regarding suggested readings for this course.

## Materials & Supplies Fees

None

## Student Evaluation & Grading

Students will be evaluated on a set of the 13 core competencies using the CORE system. The overall mean value of the graded competencies is used to calculate the final grade for the course (see Table 1). In addition, professionalism is an essential element. The student must have a positive assessment of overall professionalism in order to pass the rotation. A score of “No – Unacceptable, does not meet standards” on overall professionalism will lead to failing the rotation, regardless of the overall score of 13 competencies. Preceptors are encouraged to provide students with written copies of their Midpoint and Final Evaluations and to review and discuss each of these with the student. The student will have the opportunity to co-sign the Midpoint and Final Evaluations within CORE.

See Appendix A to view the APPE Assessment Tool and the 13 core competencies.

Table 1. Grading Scale

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
100 - 92.50 %	92.49 - 89.50 %	89.49 - 86.50 %	86.49 - 82.50 %	82.49 - 79.50 %	79.49 - 76.50 %	76.49 - 72.50 %	72.49 - 69.50 %	69.49 - 66.50 %	66.49 - 62.50 %	62.49 - 59.50 %	59.49 - 0 %
4.00 - 3.70	3.69 - 3.58	3.57 - 3.46	3.45 - 3.30	3.29 - 3.18	3.17 - 3.06	3.05 - 2.90	2.89 - 2.78	2.77 - 2.66	2.65 - 2.50	2.49 - 2.38	2.37 - 0

### Rounding of grades:

Final grades will be rounded to the second decimal place. The above scale depicts this policy and grades are determined accordingly. Grade assignment is made using this policy and **NO EXCEPTIONS** will be made in situations where a student’s grade is “close.”

## Educational Technology Use

The following technology below will be used during the course and the student must have the appropriate technology and software.

- A. CORE™
- B. Canvas™ Learning Management System

For technical support, navigate to Educational Technology and IT Support Contact Information at this URL: <http://curriculum.pharmacy.ufl.edu/current-students/technical-help/>

## Experiential Policies

The Policies in the following link apply to this course. Key topics include, but are not limited to, the following:

- Student Expectations
- Time and Attendance
- Professionalism
- Student Conduct
- Transportation & Financial Obligations
- Scheduling Changes
- Student & Preceptor Evaluations
- Grade Appeals
- Reporting Problems

Review the Experiential Rotation Manual carefully at this URL for policies:

<https://oep.pharmacy.ufl.edu/student-resources/experiential-policies-and-procedures/>

## Pharm.D. Course Policies

The Policies in the following link apply to this course. Review the General Pharm.D. Course Policies carefully at this URL: <http://curriculum.pharmacy.ufl.edu/current-students/course-policies/>

# Appendix A

The APPE Assessment Tool can be found by following this URL and entering your Gatorlink credentials:  
<https://oep.pharmacy.ufl.edu/rotations/appe-assessment-tool/>

#	Competency
1	<p><b>Drug Distribution/Distribution Support Skills</b></p> <p><i>Critical Skills (must fulfill these sub-competencies in order to earn a C or E rating for this competency):</i></p> <ul style="list-style-type: none"> <li>A. Applies state and federal regulations in the dispensing process</li> <li>B. Clarifies, adds and/or corrects prescription order information when necessary</li> <li>C. Correctly labels and performs the final check</li> </ul> <p><i>Additional sub-competencies:</i></p> <ul style="list-style-type: none"> <li>D. Determines need and factors for correctly using the medication</li> <li>E. Applies principles of civil law to the practice of pharmacy</li> <li>F. Identifies drug costs to the patient</li> <li>G. Correctly documents adverse drug reactions through the appropriate channels</li> <li>H. Applies ordering, purchasing, and inventory control principles</li> <li>I. Abides by laws on storage and disposal of medication</li> </ul>
2	<p><b>Disease State Knowledge</b></p> <p><i>Critical Skills (must fulfill these sub-competencies in order to earn a C or E rating for this competency):</i></p> <ul style="list-style-type: none"> <li>A. Synthesizes basic science and clinical information to appropriately identify patient problems</li> <li>B. Uses appropriate critical pathways, clinical practice guidelines, and disease management protocols in the delivery of pharmaceutical care</li> </ul> <p><i>Additional sub-competencies:</i></p> <ul style="list-style-type: none"> <li>C. Discusses pathophysiology of disease(s)</li> <li>D. Applies knowledge of the pathophysiology of a specific disease to prevent medication-related problems</li> <li>E. Assesses the needs of the target population relative to disease prevention/detection</li> <li>F. Selects and implements an appropriate strategy to prevent (i.e. immunizations) or detect (i.e. blood cholesterol screening) disease in the target population</li> </ul>
3	<p><b>Drug Therapy Evaluation and Development</b></p> <p><i>Critical Skills (must fulfill these sub-competencies in order to earn a C or E rating for this competency):</i></p> <ul style="list-style-type: none"> <li>A. Identifies and prioritizes both actual and potential drug related problem stating rationale</li> <li>B. Identifies problems that require emergency medical attention</li> <li>C. Designs and evaluates treatment regimens for optimal outcomes using pharmacokinetic data and drug formulation data</li> <li>D. Designs and evaluates treatment regimens for optimal outcomes using disease states and previous or current drug therapy as well as including psycho-social, ethical-legal, and financial data</li> </ul> <p><i>Additional sub-competencies:</i></p> <ul style="list-style-type: none"> <li>E. Synthesizes complete patient history and laboratory and physical exam data to identify problems</li> <li>F. Develops backup plans based on what problems are likely to occur from/with the primary plan</li> <li>G. Provides written documentation of the pharmaceutical care plan that is clear, complete, and concise</li> </ul>
4	<p><b>Monitoring for Endpoints</b></p> <p><i>Critical Skills (must fulfill these sub-competencies in order to earn a C or E rating for this competency):</i></p> <ul style="list-style-type: none"> <li>A. Identifies and suggests appropriate therapeutic endpoints for patient (cure, maintenance, or prophylaxis of disease)</li> <li>B. Develops monitoring plan appropriate for patient specific physiologic differences</li> </ul>

	<p>C. Identifies monitoring results which would require emergency medical attention</p> <p><b>Additional sub-competencies:</b></p> <p>D. Provides rationale for monitoring plan with documentation from reliable sources</p> <p>E. Evaluates and alters monitoring plan when necessary as the patient's needs change</p> <p>F. Suggests drug therapy changes based on progress towards endpoints or identified drug-related problems</p>
5	<p><b>Patient Case Presentations</b></p> <p><b>Critical Skills</b> (must fulfill these sub-competencies in order to earn a C or E rating for this competency): None</p> <p><b>Additional sub-competencies:</b></p> <p>A. Patient cases are prepared in a timely manner</p> <p>B. Follows patients and maintains information on number required by preceptor</p> <p>C. Verbally presents data in an organized manner</p> <p>D. Writes a chart note on patient and data are recorded and presented in appropriate format</p> <p>E. Uses appropriate verbal and nonverbal mannerisms during presentation</p> <p>F. Communicates presentation clearly and in a tone and volume that is clearly understood</p> <p>G. Able to answer questions about patients or disease states</p>
6	<p><b>Patient Interviews</b></p> <p><b>Critical Skills</b> (must fulfill these sub-competencies in order to earn a C or E rating for this competency):</p> <p>A. Introduces self as student from College of Pharmacy</p> <p>B. Verifies patient name and correct pronunciation, and demographic data</p> <p>C. Employs vocabulary, question structure, question complexity, and invited feedback to ensure patient understanding</p> <p>D. Answers patient questions providing appropriate and correct data</p> <p><b>Additional sub-competencies:</b></p> <p>E. Optimizes environment for the interview</p> <p>F. Clarifies the purpose and structure of the interview</p> <p>G. Explains how patient will benefit from the interview</p> <p>H. Implements the interview in an organized fashion</p>
7	<p><b>Patient Education/Counseling</b></p> <p><b>Critical Skills</b> (must fulfill these sub-competencies in order to earn a C or E rating for this competency):</p> <p>A. Speaks clearly, using correct enunciation, volume, and rate</p> <p>B. Provides accurate and pertinent information in appropriate detail</p> <p><b>Additional sub-competencies:</b></p> <p>C. Uses terminology specific to the understanding of the patient</p> <p>D. Uses appropriate non-verbal communication</p> <p>E. Includes information required for the patient's social and financial needs</p> <p>F. Provides feedback to patient questions/concerns</p> <p>G. Determines patient level of understanding by asking questions</p> <p>H. Demonstrates empathy</p> <p>I. Shows concern for patient well-being</p> <p>J. Retrieves and evaluates new information for the purpose of responding to patient questions</p>
8	<p><b>Drug Information</b></p> <p><b>Critical Skills</b> (must fulfill these sub-competencies in order to earn a C or E rating for this competency):</p> <p>A. Generates correct answers to questions in a timely and systematic manner</p> <p><b>Additional sub-competencies:</b></p> <p>B. Selects the best available resource for answering a drug-related request</p>

	<ul style="list-style-type: none"> <li>C. Demonstrates the ability to use other information resources (this includes poison control centers, pharmaceutical companies, and federal agencies)</li> <li>D. Can define primary, secondary, and tertiary references</li> <li>E. Is able to discuss the organization and operation of the Pharmacy and Therapeutics Committee (or its equivalent depending on the site). (Specific responsibilities would include formulary management and drug usage evaluation process).</li> <li>F. Demonstrates the ability to interpret descriptive statistics and inferential statistical tests using assessment tools commonly reported in medical and pharmaceutical literature.</li> <li>G. Critically analyzes the design, methodology, results, and conclusions of a given published study</li> <li>H. Compares and contrasts the approaches to clinical practice guideline (CPG) development and the concept of evidence-based medicine (EBM)</li> </ul>
9	<p><b>Formal Oral Presentations</b></p> <p><b>Critical Skills</b> (must fulfill these sub-competencies in order to earn a C or E rating for this competency):</p> <ul style="list-style-type: none"> <li>A. Delivers a content-correct presentation based on the assignment parameters</li> <li>B. Communicates correct information that is understood and useable by the audience</li> </ul> <p><b>Additional sub-competencies:</b></p> <ul style="list-style-type: none"> <li>C. Provides list of references that support an adequate review of the literature</li> <li>D. Uses appropriate verbal and non-verbal communication skills (including body language)</li> <li>E. Utilizes audiovisual aids and technology that enhance delivery and understanding of the presentation</li> <li>F. Utilizes time allotted for presentation efficiently and effectively</li> <li>G. Generates feedback from the audience by asking questions</li> <li>H. Demonstrates a knowledge base sufficient for the topic of discussion</li> <li>I. Correctly synthesizes enthusiasm, verbal skills, non-verbal skills, and audiovisual aids to produce a presentation, which gains and keeps the audience's attention</li> </ul>
10	<p><b>Formal Written Presentations</b></p> <p><b>Critical Skills</b> (must fulfill these sub-competencies in order to earn a C or E rating for this competency):</p> <ul style="list-style-type: none"> <li>A. Facts about the topic are correct</li> <li>B. Written document contains review of primary literature from reputable sources</li> </ul> <p><b>Additional sub-competencies:</b></p> <ul style="list-style-type: none"> <li>C. Presentation of the topic is organized</li> <li>D. Presentation format and length adheres to the parameters established by the Preceptor</li> </ul>
11	<p><b>Professional Team Interaction</b></p> <p><b>Critical Skills</b> (must fulfill these sub-competencies in order to earn a C or E rating for this competency):</p> <ul style="list-style-type: none"> <li>A. Demonstrates sensitivity for patients and families during team activities</li> <li>B. Provides accurate, organized, and pertinent information relevant to the team's current or future tasks</li> </ul> <p><b>Additional sub-competencies:</b></p> <ul style="list-style-type: none"> <li>C. Dresses appropriately for the setting</li> <li>D. Demonstrates respect for other healthcare professionals</li> <li>E. Uses interpersonal communication skills to facilitate team interactions</li> <li>F. Actively participates in team activities</li> <li>G. Assists team members in establishing therapeutic and/or diagnostic objectives</li> <li>H. Uses documentation, persuasion, and alternative suggestions to resolve therapeutic disagreements</li> <li>I. Follows up on questions asked by the team in a timely fashion</li> <li>J. Interactions with the team are conducted with an appropriate level of confidence</li> <li>K. Retrieves and evaluates new information for the purpose of responding to professional questions</li> </ul>
12	<p><b>Professionalism/Motivation</b></p> <p><b>Critical Skills</b> (must fulfill these sub-competencies in order to earn a C or E rating for this competency):</p> <ul style="list-style-type: none"> <li>A. Demonstrates knowledge and understanding of the pharmacist "Code of Ethics"</li> </ul>

	<p>B. Demonstrates sensitivity to confidentiality issues</p> <p>C. Attends and participates in all activities according to attendance policies</p> <p><b>Additional sub-competencies:</b></p> <p>D. Identifies and respects the values of others</p> <p>E. Defends ethical decisions through analysis of ethical principles</p> <p>F. Is punctual for all activities</p> <p>G. Completes assigned responsibilities on time (including patient care responsibilities)</p> <p>H. Accommodates to change in workflow without disruption of work schedule</p> <p>I. Initiates additional learning responsibilities</p> <p>J. Synthesizes new information in order to draw conclusions, hypothesizes, or decides a course of action</p>
13	<p><b>Cultural Sensitivity</b></p> <p><b>Critical Skills</b> (must fulfill these sub-competencies in order to earn a C or E rating for this competency): None</p> <p><b>Sub-competencies:</b></p> <p>A. Assesses the religious and socio-economic value systems that affect need and adherence</p> <p>B. Possesses the knowledge, skills, and behaviors required to identify communication tools to accommodate a culturally diverse population</p> <p>C. Identifies cultural differences that will potentially effect professional interactions</p> <p>D. Identifies appropriate alternative measures to improve verbal and non-verbal interactions between patient and pharmacist</p>