PRCT 591
PATIENT CARE EXPERIENCE ELECTIVE
ADVANCED PHARMACY PRACTICE EXPERIENCE

Course Description

An advanced practice experiential course designed to provide the student with practical experience in the profession of pharmacy. The course consists of interactions with both patients and healthcare workers across multiple disciplines.

Credit Hours: 5
Prerequisites: B.S. in Pharmaceutical Sciences or equivalent, and successful completion of the third professional year curriculum and associated pre-APPE competencies
Meeting times: Monday thru Friday, 8 hours per day, 40 hours per week
                        Other times as assigned by preceptors or instructors

Locations: Varied depending on rotation site as assigned by course coordinator.

Course Resources

Web site: All announcements related to this course will be posted to the PY4 announcements page. Students are responsible for checking this page daily.

Equipment: Lab coat

Staff Information

Kristopher Harrell, Pharm.D.
Director of Professional Experience Programs
Course Coordinator
Office: UMMC, PH105
Phone: (601) 984-2622
e-mail: kharrell@umc.edu

Site Contact (preceptor of record):
Preceptor/faculty contact information can be found on the online rotation management website and will be made available to the student. The student will interact primarily with the preceptor of record; however, students are encouraged to contact Dr. Harrell throughout the rotation via email for specific concerns or to set up individual meetings, if needed.

Course Objectives

General
- Further prepare students for the profession of pharmacy through continuous professional development and promotion of lifelong learning by providing them with supervised practical experience.
- Build upon introductory pharmacy practice rotations and provide students with more direct patient care and related activities specifically in a **patient care** pharmacy practice setting.

Communication Abilities

- Effectively communicate, verbally and in writing with other health care professionals.
- Articulate and support drug therapy recommendations.
- Document accurate, logical, yet only pertinent information, including drug therapy directions (dosage, route, frequency, duration, monitoring parameters, and time of follow up) using correct terminology, spelling, and grammar.
- Effectively communicate patient and/or medication self-management information to patients and health professionals.
- Prepare and present an educational program to a group of health care professionals or patients in an effective manner.

Thinking Abilities

- Provide concise, applicable, and timely responses to requests for drug information from health care professionals and patients.
- Perceive, assess, and evaluate drug information needs.
- Apply a systematic approach to solve drug information questions.
- Interpret and synthesize information from multiple sources into a concise written or verbal presentation.
- Compare and contrast new information that is encountered during daily rotation activities with prior knowledge in order to assess its value and refine one's personal understanding.

Patient Care and Drug Therapy Assessment

- Develop functional patient databases by gathering and generating relevant information.
- Identify drug-related problems:
    - Drug therapy is needed for untreated indications.
    - Patient is receiving a drug that has no indication and/or there is therapeutic duplication.
    - There is a better choice of drug based on patient/disease characteristics, formulary, cost, etc.
    - Drug therapy needs optimization (population and patient-specific pharmacokinetic and pharmacodynamic data indicate a drug regimen is not optimized)
    - Medication non-adherence.
    - Drug induced disease/medical conditions.
    - Socio-behavioral and economic barriers to effective drug therapy.
    - Adverse drug reactions that are substantiated by laboratory, test, and physical findings.
    - Routes of administration that are not the best, safest, and most cost-effective.
    - Drug interactions that are substantiated with pharmacokinetic/dynamic and compatibility information.
    - Prioritize drug-related problem list.

Drug Therapy Plans

- Establish desired therapeutic outcomes.
- Consider drug and non-drug therapy alternatives.
- Develop drug therapy plans that are patient-specific, comprehensive, logical, practical, consider current evidence-based medicine recommendations, include strategies for prevention, and include patient education.

- Establish a plan for therapeutic drug monitoring that includes accurate documentation of population and patient-specific parameters, dosing history/administration times, monitoring parameters, and daily SOAP notes/plans.
- Develop and implement the pharmacotherapeutic plan promptly, efficiently, accurately, and effectively.
- Use an effective patient monitoring system (monitoring forms).
- Monitor the patient and follow up at appropriate intervals.
- Revise drug therapy plans on an ongoing basis.

Pharmacotherapy Decision-Making

- Pursue the role of drug therapy practitioner over that of drug therapy advisor.
- Identify opportunities for decision-making.
- Proactively engage in therapeutic decision-making
- Formulate decision rationale that is the result of rigorous inquiry, scientific reasoning, and evidence
- Pursue the highest levels of decision-making.
- Seek independence in making decisions and accepting personal responsibility for the outcomes to patients resulting from one's decisions.
- Follow through with decisions.

Professionalism

- Demonstrate a positive attitude toward practice of pharmacy.
- Use good professional judgment and demonstrate ability to cope with a variety of situations.
- Communicate effectively and appropriately.
- Show initiative.
- Exercise punctuality and maintain expected attendance.

Additional *site-specific rotation objectives* may be assigned by the preceptor in this document, or as an attachment, and will be provided to the student by the first day of the rotation.

- Understand patient and family care goals
- Become familiar with pain management options in patients with advanced illness
- Understand pain management used for surgeries
- Become more familiar with types of pain
- Understand the concept of terminal care, including referral to services such as hospice care

Evaluation

The student should be evaluated based on overall performance in meeting the objectives of the rotation. The evaluation should be evidenced-based and involve student self-reflection, as well as constructive preceptor feedback.

The student is expected to complete a self-evaluation of his or her performance of the desired ability-based outcomes providing details of required and other activities performed during the rotation. The **Patient Care Advance Practice Experience Transcript** should be used for this purpose. The preceptor should use the same document to review student performance and provide additional comments or evidence.

The evaluation of the student is to be completed online using the online rotation management system. A **mid-point** evaluation is to be completed and reviewed with the student **between the second and third weeks** of the rotation.

Once the transcript is completed and evidence is documented, the final evaluation is to be entered online. The online evaluation is based on the preceptor evaluation of student (**PEOS-PCX**) form. This form can also be found on the preceptor zone of the www.pharmd.org website under "assessment forms" and in the PEP manual located on the same website.

On the **last day** of the rotation the preceptor should assign a **final grade**. The preceptor is to discuss the final evaluation with the student on the last day of the rotation.

Grading Scale:

A: 90-100%
B: 80-89%
C: 70-79%
F: Below 70%

An Incomplete (I) grade is posted for those students for whom evaluations (grades) are not received or if course requirements are incomplete.

Educational Outcomes

This course fosters development in several of the general education abilities and professional education abilities that have been defined as desired outcomes of the School of Pharmacy curriculum. Throughout the rotation period, students will be provided with opportunities to practice these abilities. Please keep in mind these outcome goals as you monitor your progress in this course.

The abilities fostered in this course are stated in the following table.

EDUCATIONAL OUTCOMES FOR PATIENT CARE ELECTIVE 591		
General Education Abilities	**Major outcome of this course**	**Minor outcome of this course**
Critical Thinking, Analysis and Decision-Making "The student can find, understand, analyze, evaluate, and synthesize information and make informed, rational, and responsible decisions."	✔	
Communication Skills "The student can communicate with various audiences by written, verbal, and electronic media for a variety of purposes."	✔	
Mathematical Competence "The student is proficient in the expression of quantitative relationships and can perform the needed mathematical operations to infer their consequences."	✔	
Professional Education Abilities	**Major outcome of this course**	**Minor outcome of this course**
1a. Collect and organize patient data, medical records, interviews, and psychomotor evaluations	✔	
1b. Evaluate and interpret patient data	✔	
1c. Apply knowledge of medical terminology and abbreviations	✔	
1d. Apply knowledge of specified drugs and drug classes	✔	
1e. Apply knowledge of specific physiologic systems	✔	

1f. Apply knowledge of specific disease pathology and comorbid conditions	✔	
2a. Apply understanding of indications for pharmacologic and non-pharmacologic therapy	✔	
2b. Apply clinical reasoning skills in drug product selection, chemical entity, dosage formulation based on principles of pharmaceutics, medicinal and natural product chemistry	✔	
2c. Develop appropriate dosing regimens, which reflect application of knowledge of pharmaceutical calculations, initial dose, dose titration, and dosage adjustments	✔	
2e. Develop rational plans for monitoring therapeutic outcomes	✔	
2f. Develop rational plans for monitoring and managing adverse events	✔	
2g. Develop plans for anticipating, avoiding, and resolving drug interactions, drug-drug interactions, drug-food interactions, drug-disease interactions, drug-lab interactions, and drug-procedure interactions	✔	
2h. Develop plans for patient education on drug therapy and therapeutic lifestyle changes	✔	
2i. Document recommendations and services accurately and comprehensibly	✔	
4c. Apply ethics and professional principles to assure efficient utilization of resource management and effective treatment choices		✔
5a. Employ communication styles and techniques appropriate to the audience	✔	
5b. Work effectively within a multidisciplinary/interdisciplinary environment	✔	
5c. Include patient and caregiver as integral parts of a treatment plan	✔	
8a. Serve as reliable and credible source of drug information	✔	
8d. Present effective educational programs and presentations to public and health care profession audiences	✔	
11a. Take responsibility for gathering new knowledge		✔

Expectations

1. Students are assigned eight advanced pharmacy practice experience rotations, four required and four electives. The four required rotations are adult medicine, ambulatory care, community practice, and institutional practice. Of the remaining elective rotations, two must involve patient care, and these are assigned based on student preferences and preceptor availabilities. Students are notified of rotation assignments during the Spring semester of the third professional year. Should any changes be necessary students will be notified in writing in advance of the rotation.

2. Students will be expected to spend forty hours per week at the practice sites. These hours will be counted toward pharmacist licensure requirement in accordance with regulations of the Mississippi State Board of Pharmacy.

3. Students will be expected to send their assigned preceptors a cover letter and a copy of their curriculum vita two weeks before the beginning of the rotations. They should then follow up with their assigned preceptors via phone or email one week prior to rotation start dates. The phone numbers and email addresses for the preceptors are listed online at the rotation management website. Students may be asked to provide certain documentation to the school or practice site prior to the rotation. For more specific information about rotation administrative and health requirements, refer to the PEP Manual. The subsequent meeting times and expectations of the student should be outlined by the preceptors during the first meeting.

4. Students are expected to be punctual. If absences occur for any reason, the students must contact the preceptor. More than one unexcused absence results in course failure. Should a student miss more than 4 days of a given rotation, the student will have to repeat the rotation before receiving credit for the course. For more information about absences, refer to the PEP Manual.

5. Students will be expected to complete all required activities, as well as site-specific activities assigned by the preceptor. The following required activities for this course must be completed and documented on the online management system at least once during the rotation:

   a. Case Presentation
   b. Drug Information Question
   c. Medication Intervention
   d. New Drug Review
   e. SOAP Note
   f. Team care activity

6. Students will be expected to complete the transcript and evaluation of his or her preceptor on the online rotation management website by the last day of the rotation.

Failure to submit any single item by the end of the rotation will result in an "incomplete" grade, which can then become an "F" per University policy. For more information students should refer to the PEP Manual for general rotation policies.

Student attire: Compliance with the dress code is expected. Various practice sites will have different requirements for dress, and students will be expected to comply with those requirements at the discretion of the preceptor. I.D. badges are required, and during practice rotations, lab coats are as well.

Students with disabilities: It is the responsibility of any student with a disability who requests a reasonable accommodation to contact the Office of Student Disability Services (662-915-7128). SDS will then contact the instructor through the student by means of an Instructor Notification of Classroom Accommodations form. The Instructor will then be happy to work with the student so that a reasonable accommodation for a disability can be made. This contact with SDS should be made as

soon as possible after classes begin such that the appropriate preparation for the student may be planned.

If necessary, the syllabus may be modified at any point during the rotation period. Students taking the course will be notified in writing of any changes.

Patient Care Advance Practice Experience Transcript

Student name _____   Preceptor Name _____

UM Professional Ability-Based Outcomes	Course Objectives	Required Activities /Additional Evidence
1a. Collect and organize patient data, medical records, interviews, and psychomotor evaluations	*Develop functional patient databases by gathering and generating relevant information*	☐ Case Presentation
1b. Evaluate and interpret patient data	*Develop functional patient databases by gathering and generating relevant information*	☐ Case Presentation ☐ SOAP Note
1c. Apply knowledge of medical terminology and abbreviations	*Develop functional patient databases by gathering and generating relevant information; Identify drug-related problems*	☐ Case Presentation ☐ SOAP Note
1d. Apply knowledge of specified drugs and drug classes	*Assess each acute and chronic medical problem; Identify drug-related problems*	☐ Case Presentation ☐ SOAP Note
1e. Apply knowledge of specific physiologic systems	*Identify drug-related problems*	☐ Case Presentation ☐ SOAP Note
1f. Apply knowledge of specific disease pathology and comorbid conditions	*Identify drug-related problems*	☐ Case Presentation ☐ SOAP Note
2a. Apply understanding of indications for pharmacologic and non-pharmacologic therapy	*Identify drug-related problems*	☐ Medication Intervention
2b. Apply clinical reasoning skills in drug product selection, chemical entity, dosage formulation based on principles of pharmaceutics, medicinal and natural product chemistry	*Identify drug-related problems*	☐ Medication Intervention
2c. Develop appropriate dosing regimens, which reflect application of knowledge of pharmaceutical calculations, initial dose, dose titration, and dosage adjustments	*Identify drug-related problems; Develop drug therapy plans that are patient-specific, comprehensive, logical, practical, consider current evidence-based medicine recommendations, include strategies for prevention, and include patient education; Develop and implement the pharmacotherapeutic plan promptly, efficiently, accurately, and effectively*	☐ Medication Intervention ☐ SOAP Note
2e. Develop rational plans for monitoring therapeutic outcomes	*Establish desired therapeutic outcomes; Develop drug therapy plans that are patient-specific, comprehensive, logical, practical, consider current evidence-based medicine recommendations, include strategies for prevention, and include patient education; Develop and implement the pharmacotherapeutic plan promptly, efficiently, accurately, and effectively; Revise drug therapy plans on an ongoing basis*	☐ Medication Intervention ☐ SOAP Note

2f. Develop rational plans for monitoring and managing adverse events	*Develop drug therapy plans that are patient-specific, comprehensive, logical, practical, consider current evidence-based medicine recommendations, include strategies for prevention, and include patient education; Develop and implement the pharmacotherapeutic plan promptly, efficiently, accurately, and effectively; Revise drug therapy plans on an ongoing basis*	☐ Medication Intervention ☐ SOAP Note
2g. Develop plans for anticipating, avoiding, and resolving drug interactions, drug-drug interactions, drug-food interactions, drug-disease interactions, drug-lab interactions, and drug-procedure interactions	*Identify drug-related problems; Prioritize drug-related problem-list; Develop drug therapy plans that are patient-specific, comprehensive, logical, practical, consider current evidence-based medicine recommendations, include strategies for prevention, and include patient education; Develop and implement the pharmacotherapeutic plan promptly, efficiently, accurately, and effectively; Revise drug therapy plans on an ongoing basis*	☐ Medication Intervention ☐ SOAP Note
2h. Develop plans for patient education on drug therapy and therapeutic lifestyle changes	*Consider drug and non-drug therapy alternatives; Develop drug therapy plans that are patient-specific, comprehensive, logical, practical, consider current evidence-based medicine recommendations, include strategies for prevention, and include patient education; Develop and implement the pharmacotherapeutic plan promptly, efficiently, accurately, and effectively; Revise drug therapy plans on an ongoing basis*	☐ Medication Intervention ☐ SOAP Note
2i. Document recommendations and services accurately and comprehensibly	*Document accurate, logical, yet only pertinent information, including drug therapy directions (dosage, route, frequency, duration, monitoring parameters, and time of follow up) using correct terminology, spelling, and grammar*	☐ SOAP Note
4c. Apply ethics and professional principles to assure efficient utilization of resource management and effective treatment choices	*Use good professional judgment and demonstrate ability to cope with a variety of situations*	
5a. Employ communication styles and techniques appropriate to the audience	*Effectively communicate, verbally and in writing with other health care professionals; Effectively communicate patient and/or medication self-management information to patients and health professionals; Demonstrate a positive attitude toward practice of pharmacy; Communicate effectively and appropriately*	☐SOAP Note ☐Case Presentation ☐ Team Care Activity
5b. Work effectively within a multidisciplinary/ interdisciplinary environment	*Effectively communicate, verbally and in writing with other health care professionals; Effectively communicate patient and/or medication self-management information to patients and health professionals; Use good professional judgment and demonstrate ability to cope with a variety of situations; Communicate effectively and appropriately; Exercise punctuality and maintain expected attendance*	☐ Team Care Activity ☐ Drug Information Question

5c. Include patient and caregiver as integral parts of a treatment plan	*Deliver appropriate and effective patient counseling; Monitor the patient and follow up at appropriate intervals*	☐ SOAP Note
8a. Serve as reliable and credible source of drug information	*Provide concise, applicable, and timely responses to requests for drug information from health care professionals and patients*	☐ Drug Information Question
8d. Present effective educational programs and presentations to public and health care profession audiences	*Effectively communicate, verbally and in writing with other health care professionals; Prepare and present an educational program to a group of health care professionals or patients in an effective manner*	☐ Case Presentation ☐ New Drug Review
11a. Take responsibility for gathering new knowledge	*Show initiative*	

PRECEPTOR EVALUATION OF PATIENT CARE PHARMACY PRACTICE STUDENT
(Form PEOS-PCX)

This form may be used a guide to complete the online evaluation.

Instructions: Evaluate the student on each item. Using the scale below, note the score achieved by the student in each performance category. If a student receives any score less than 3 on any item, it <u>must</u> be addressed in the comments section.

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0 = Not assessed
1 = Poorest Anticipated Performance      (<60%)
2 = Less than Expected Performance       (60-69%)
3 = Minimum Expected Performance         (70-79%)
4 = Better than Expected Performance     (80-89%)
5 = Best Anticipated Performance         (90-100%)
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Ability Based Outcome and Corresponding Objectives	Evaluation Score
1a. Collect and organize patient data, medical records, interviews, and psychomotor evaluations *Develop functional patient databases by gathering and generating relevant information*	
1b. Evaluate and interpret patient data *Develop functional patient databases by gathering and generating relevant information*	
1c. Apply knowledge of medical terminology and abbreviations *Develop functional patient databases by gathering and generating relevant information; Identify drug-related problems*	
1d. Apply knowledge of specified drugs and drug classes *Assess each acute and chronic medical problem; Identify drug-related problems*	
1e. Apply knowledge of specific physiologic systems *Identify drug-related problems*	
1f. Apply knowledge of specific disease pathology and comorbid conditions *Identify drug-related problems*	
2a. Apply understanding of indications for pharmacologic and non-pharmacologic therapy *Identify drug-related problems*	
2b. Apply clinical reasoning skills in drug product selection, chemical entity, dosage formulation based on principles of pharmaceutics, medicinal and natural product chemistry *Identify drug-related problems*	
2c. Develop appropriate dosing regimens, which reflect application of knowledge of pharmaceutical calculations, initial dose, dose titration, and dosage adjustments *Identify drug-related problems; Develop drug therapy plans that are patient-specific, comprehensive, logical, practical, consider current evidence-based medicine recommendations, include strategies for prevention, and include patient education; Develop and implement the pharmacotherapeutic plan promptly, efficiently, accurately, and effectively*	
2e. Develop rational plans for monitoring therapeutic outcomes *Establish desired therapeutic outcomes; Develop drug therapy plans that are patient-specific, comprehensive, logical, practical, consider current evidence-based medicine recommendations, include strategies for prevention, and include patient education; Develop and implement the pharmacotherapeutic plan promptly, efficiently, accurately, and effectively; Revise drug therapy plans on an ongoing basis*	
2f. Develop rational plans for monitoring and managing adverse events *Develop drug therapy plans that are patient-specific, comprehensive, logical, practical, consider current evidence-based medicine recommendations, include strategies for prevention, and include patient education; Develop and implement the pharmacotherapeutic plan promptly, efficiently, accurately, and effectively; Revise drug therapy plans on an ongoing basis*	
2g. Develop plans for anticipating, avoiding, and resolving drug interactions, drug-drug interactions, drug-food interactions, drug-disease interactions, drug-lab interactions, and drug-procedure interactions *Identify drug-related problems; Prioritize drug-related problem-list; Develop drug therapy plans that are patient-specific, comprehensive, logical, practical, consider current evidence-based medicine recommendations, include strategies for prevention, and include patient education; Develop and implement the pharmacotherapeutic plan promptly, efficiently, accurately, and effectively; Revise drug therapy plans on an ongoing basis*	

2h. Develop plans for patient education on drug therapy and therapeutic lifestyle changes *Consider drug and non-drug therapy alternatives; Develop drug therapy plans that are patient-specific, comprehensive, logical, practical, consider current evidence-based medicine recommendations, include strategies for prevention, and include patient education; Develop and implement the pharmacotherapeutic plan promptly, efficiently, accurately, and effectively; Revise drug therapy plans on an ongoing basis*	
2i. Document recommendations and services accurately and comprehensibly *Document accurate, logical, yet only pertinent information, including drug therapy directions (dosage, route, frequency, duration, monitoring parameters, and time of follow up) using correct terminology, spelling, and grammar*	
4c. Apply ethics and professional principles to assure efficient utilization of resource management and effective treatment choices *Use good professional judgment and demonstrate ability to cope with a variety of situations*	
5a. Employ communication styles and techniques appropriate to the audience *Effectively communicate, verbally and in writing with other health care professionals; Effectively communicate patient and/or medication self-management information to patients and health professionals; Demonstrate a positive attitude toward practice of pharmacy; Communicate effectively and appropriately*	
5b. Work effectively within a multidisciplinary/ interdisciplinary environment *Effectively communicate, verbally and in writing with other health care professionals; Effectively communicate patient and/or medication self-management information to patients and health professionals; Use good professional judgment and demonstrate ability to cope with a variety of situations; Communicate effectively and appropriately; Exercise punctuality and maintain expected attendance*	
5c. Include patient and caregiver as integral parts of a treatment plan *Deliver appropriate and effective patient counseling; Monitor the patient and follow up at appropriate intervals*	
8a. Serve as reliable and credible source of drug information *Provide concise, applicable, and timely responses to requests for drug information from health care professionals and patients*	
8d. Present effective educational programs and presentations to public and health care profession audiences *Effectively communicate, verbally and in writing with other health care professionals; Prepare and present an educational program to a group of health care professionals or patients in an effective manner*	
11a. Take responsibility for gathering new knowledge *Show initiative*	
General Professionalism Objectives	
Demonstrate a positive attitude toward practice of pharmacy.	
Use good professional judgment and demonstrate ability to cope with a variety of situations.	
Communicate effectively and appropriately.	
Show initiative.	
Exercise punctuality and maintain expected attendance.	

Comments

FINAL EVALUATION:

Numeric Score _____   ☐ A   ☐ B   ☐ C ☐ F