



**University of Kentucky
College of Pharmacy**

**PHR 988
Advanced Pharmacy Practice Experience (APPE)**

**2009-2010
Manual & Global Syllabus**

Last Update April 6, 2009

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PHR 988 - Advanced Pharmacy Practice Experience (APPE)

Global Syllabus - Description & Outcomes

COURSE DESCRIPTION: The Advanced Pharmacy Practice Experience is an experience-based integrated problem-solving course designed to help students become an active participant in providing contemporary patient care services. Students, under the direction of different faculty, will integrate their knowledge of pharmacotherapy, disease states, dosage formulations and pharmacokinetics to develop and assess therapeutic plans and evaluate drug selection for patients. The student will learn about drug delivery systems, distribution issues, and management strategies in the various sites. Each rotation will stress outcome-oriented decision making in clinical situations regarding drug therapy in specific disciplines. Students will attend physician rounds/ interdisciplinary team meetings, conferences and discussions, monitor and present assigned patients, and interact with patients and health care professionals. Over the course of the experience, students will learn to develop recommendations and participate in decisions about drug therapy considering factors involving efficacy, toxicity, cost, third party coverage, and unique methods of delivery.

GENERAL STATEMENT OF COURSE OUTCOMES

At the end of all APPE rotations, students will be able to:

1. dispense and compound prescriptions in accordance with all legal, ethical and patient care ‘good practices’
2. prepare IVs and other sterile products in accordance with accepted standard of practice
3. apply case management skills alone or as a care team member to drug therapy selection, monitoring and assessment
4. plan for continuity of care of patients across multiple care sites for drug therapy either alone or as part of health care team
5. formulate, implement, and document care plans that manage patient care needs using drug monitoring and physical assessment skills for:
 - a. common chronic disease states
 - b. common acute episodes of common diseases
 - c. common disease states in special patient populations: e.g. pediatrics, OB/GYN, geriatrics, terminally ill and critically ill
6. identify barriers and propose solutions to manage common disease states in traditionally underserved populations such as the indigent or those with little or no access to the health care system
7. use strategies to improve patient compliance with drug therapy regimens to enhance outcomes
8. develop practice management skills relating to documentation and compensation issues, managed care, supervision of technical personnel, and administrative matters related to operations and patient outcomes
9. demonstrate the ability to integrate distributive and clinical skills in providing patient care
10. actively participate in clinical process improvement activities and population based therapeutic drug decision making for targeted populations or groups of patients
11. actively participate in activities related to health promotion and disease prevention in a variety of settings

To achieve these outcomes, all students are expected to utilize and enhance their skills in drug information retrieval and analysis, communication (both written and verbal), pharmacokinetics, and research processes.

CONTACT INFORMATION - Office of Experiential Education

Please use the following mailing address for all correspondence:

University of Kentucky College of Pharmacy
725 Rose Street
Lexington, KY 40536-0082

The physical address is noted under each individual name.

Program web site: www.uky.edu/Pharmacy/Clerkships

Course Faculty

<p>Trish Rippetoe Freeman, RPh, PhD Clinical Associate Professor Director of Professional Practice Programs and Director of Experiential Education Department of Pharmacy Practice and Science University of Kentucky College of Pharmacy Room 201A Pharmacy Building 725 Rose Street Lexington, KY 40536-0082</p> <p>Email: trfree1@email.uky.edu Phone: 859-323-1381 Fax: 859-323-0069</p>	<p>Anne Policastri, PharmD, MBA, FKSHP Clinical Assistant Professor Assistant Director of Experiential Education University of Kentucky College of Pharmacy Room 104 UK Federal Credit Union 1080 Export Street, Suite 180</p> <p>Email: apoli2@email.uky.edu Phone: 859-323-0893 Fax: 859-257-7518</p>
<p>Ann Amerson, Pharm D Professor Portfolio Review Coordinator University of Kentucky College of Pharmacy Room 102 UK Federal Credit Union 1080 Export Street, Suite 180</p> <p>Email: aamer1@email.uky.edu Phone: 859-218-1303 Fax: 859-257-7518</p> <p><i>Please contact Dr. Amerson with any Portfolio related questions. (CEC students, please contact your CTC)</i></p>	<p>Christopher Miller, PharmD, MS, MBA, BCNSP Clinical Assistant Professor Clinical Training Coordinator – Greater Louisville Area University of Kentucky College of Pharmacy UK Clinical Education Center at Norton Healthcare 315 East Broadway, Suite 50 Louisville, KY 40202</p> <p>Email: cmmill1@email.uky.edu Phone: 502-629-6838 Fax: 502-629-8233</p> <p><i>Please contact Dr. Miller with any questions or if you need assistance and are on rotation in the Louisville area.</i></p>
<p>Michael C. Berger, Pharm.D. Clinical Training Coordinator/Clinical Instructor University of Kentucky College of Pharmacy UK Clinical Education Center at Owensboro 811 East Parrish Avenue Owensboro, KY 42303</p> <p>Email: mcberg0@uky.edu Phone: 270-688-4226 Fax: 270-691-0948</p> <p><i>Please contact Dr. Berger with any questions or if you need assistance and are on rotation in the Owensboro area.</i></p>	

CONTACT INFORMATION - Office of Experiential Education (continued)

Course Staff

<p>Mike Richardson Program Coordinator for Experiential Education University of Kentucky College of Pharmacy Room 103 UK Federal Credit Union 1080 Export Street, Suite 180</p> <p>Email: mrich2@email.uky.edu Phone: 859-323-3633 Fax: 859-257-7518</p> <p><i>Please contact Mr. Richardson with administrative questions regarding the program.</i></p>	<p>Korky Gwinn Staff Assistant for the Office of Experiential Education University of Kentucky College of Pharmacy Room 201 Pharmacy Building</p> <p>Email: kgwinn@email.uky.edu Phone: 859-323-8750 or 859-218-1308 Fax: 859-323-0069</p>
<p>Helen Garces, M.S.Ed. Curriculum Officer for Experiential Education University of Kentucky College of Pharmacy Room 105 UK Federal Credit Union 1080 Export Street, Suite 180</p> <p>Email: hiklar00@email.uky.edu Phone: 859-218-1321 Fax: 859-257-7518</p> <p><i>Please contact Ms. Garces with questions regarding CoursEval.</i></p>	

General APPE Information & Requirements

General APPE Requirements: All students are required to complete ten (10) one-month rotations during the PY4 year. Students shall be enrolled in each of the three academic semesters (summer, fall and spring). Each section of PHR 988 is awarded four (4) academic credit hours, so each student shall ultimately receive 40 academic credit hours for PHR 988.

Rotation Dates, 2009/2010:

Summer	
May Rotation:	May 4-29
June Rotation:	June 1-30
July Rotation:	July 1-31
August Rotation:	August 3-31
Fall	
September Rotation:	September 1-30
October Rotation:	October 1-30
November Rotation:	November 2-30
December Rotation:	December 1-31
Spring	
January Rotation:	January 4-29
February Rotation:	February 1-26
March Rotation:	March 1-31
April Rotation:	April 1-30

Additional Dates:

PY4 Residency Showcase:	September 25, 2009
Interview Day:	October 26-27, 2009
Apothecary Ball:	April 2010
Keeneland:	April 2010
COP Graduate Recognition Ceremony:	May 7, 2010
UK Main Commencement Ceremony:	May 8, 2010

Required Rotations: Each student shall complete one each of the following five types of rotations:

1. Community Pharmacy
2. Ambulatory Care
3. Community Hospital Pharmacy
4. Medicine Selective
5. Specialty Population

Rotation Change Request Guidelines: All requests to change rotation sites must be submitted by the quarterly deadlines established each year and provided on the web page under Rotation Policies and Procedures. Students are limited to two changes during the rotation year. If a student is assigned a "PR" slot, that student may swap with another person so that the "PR" slot remains filled. Students may also request the preceptor's permission to drop out of the rotation. If there is no designation on the slot, students may request to trade to any other open slot. Please be aware that all slots that appear open may not be open for various reasons. Any requests to change rotations are to be submitted to Mike Richardson.

Rotation Syllabi: Prior to the start of each rotation, students should review the syllabus that defines goals and objectives, areas of emphasis, activities and method of grading the student for that particular site/rotation. The syllabi are available on the APPE website which may be found at www.uky.edu/Pharmacy/clerkships. Please contact Mike Richardson if any problems are encountered when retrieving these documents.

Monthly Student Memo: This memorandum will be available at the home page of the Experiential Education Program at www.uky.edu/Pharmacy/clerkships/ under the "Information for Students" heading. The memorandum will be available for viewing and/or printing in an Adobe Acrobat reader file. The monthly memorandum will be posted by the 15th of the month for the next month, i.e. the memorandum for June will be posted by May 15th.

Texts: There are no required texts for the course. Some suggested references are:

Drug Information Handbook
Most current edition
APhA
Washington, DC

Basic Skills in Interpreting Lab Data
ASHP P720
ISBN: 978-1-58528-059-9
2008

Internship Hours: Please refer to Kentucky Pharmacy Laws 201 KAR 2:040 for complete regulations. The College of Pharmacy reports 160 internship hours per 4-week APPE rotation to the Kentucky Board of Pharmacy. The Kentucky Board of Pharmacy credits internship hours and all hours submitted must meet 201 KAR 2:040. Students will complete the Kentucky Board of Pharmacy Practice Experience Affidavit Form IV to document hours for each rotation (available on the APPE Site as a PDF document). Instructions on completion of the form will be provided during the session on graduation at the fall Interview Day activities. The form in duplicate will be returned after the completion of the last APPE rotation. This document will be signed, stamped with the College of Pharmacy seal and sent to the Kentucky Board of Pharmacy. It is the student's responsibility to make sure this form gets properly completed and turned in timely.

Rotations out of state. Students completing rotations outside of Kentucky may have to make special arrangements to receive internship hours for those rotations, if needed. Each of the ten APPE rotations and the EPPE rotation is worth 160 hours credit for a total of 1760 hours. The Kentucky Board of Pharmacy requirement is 1500 hours, therefore if you did one out of state rotation and did not request credit hours you would have 1600 hours and would meet the Kentucky Board requirement. Students with two out of state rotations will only have 1440 hours from College of Pharmacy rotations unless special arrangements are made to have those out of state rotations counted. To obtain internship hours from an out of state rotation, the laws of that state must be followed. Students should contact Dr. Policastri if they have questions about this process.

Scheduling: Students are expected to work a minimum of 40 hours per week. The preceptor determines the schedule for the student's activities. Some rotations will require Saturday hours because of the patient care responsibilities. In other rotations, it is appropriate to schedule students at other times because of certain activities that will be beneficial for student learning.

Attendance: Specific attendance policies are set in the syllabus for each specific rotation.

- **Excused Absences:** Students should make every effort to minimize time away from the rotation site. Illness, weather-related conditions, travel to professional meetings or other unforeseen circumstances may cause a student to miss days at the APPE site. The preceptor may use discretion in how that time is made up. If time is missed, the preceptor and the student should discuss options for making up the time. If a mutually acceptable arrangement cannot be determined, the course coordinator should be contacted.
- **Unexcused Absences:** Unexcused absences will result in grade reduction as this violates the professional standards of the college and the facility. Tardiness may also result in grade reduction.
- **Continued unexcused absences or tardies constitute unprofessional behavior and may be cause for dismissal from the rotation.**

Severe Weather Policy: In the event of severe weather in the locale where the student is assigned, the policy adopted by the assigned facility will generally apply. The student should contact the preceptor (if possible) to determine the best and safest course of action as many variables may apply in a given situation. The student should expect to make up any time missed either through scheduled time or special projects.

AHEC Rotations: Students doing rotations in AHEC areas need to make sure that they complete the appropriate forms for the AHEC office at least 30 days in advance of the start of the rotation. The AHEC office is located at 138 Leader Ave. If you have questions about whether a site qualifies for AHEC support, you can check with Mike Richardson or the AHEC office at 323-8018.

UK Medical Center ID Badge: Students are required to wear their UK Medical Center ID badge at all times whether in the classroom or at their rotation site. If the rotation site is other than a University facility, the student should wear the Medical Center badge and/or other identification supplied by the site and comply with the other requirements of the facility.

Patient Confidentiality: All information concerning patients and patient care is to remain confidential. Students must comply with the Behavioral Standards in Patient Care and the Health Sciences Student Professional Behavior Code of the University Hospital and Chandler Medical Center. These apply to participation in any health care facility unless the standards of the facility exceed the University standards.

- a. Each patient shall be treated as a whole, irreplaceable, unique, and worthy person.
- b. The patient's safety, health, or welfare shall be protected and shall not be subordinated to organizational, staff, educational, or research interests or to any other end.
- c. The privacy of the patient and the confidentiality of every case and record shall be maintained.
- d. Patients and/or responsible family shall be informed at all stages of care about personnel responsible for the patient's care, treatment plans, and activities for the patient, facilities, and services available to the patient, and responsibilities of the patient and family.
- e. Behavior reflecting the dignity, responsibility, and service orientation of health care professionals, worthy of the public's respect and confidence, shall be practiced by all individuals.
- f. Each patient shall have a responsible attending Physician or Dentist.

Students may also be asked to do additional HIPAA training and/or produce verification of the HIPAA training received on campus. A memo is available on the EEP website verifying completion of a federally approved Level 1 HIPAA Training Course has occurred on campus.

Please refer to the Behavioral Standards in Patient Care here:

http://www.mc.uky.edu/learningcenter/Manuals/Behavioral-Standards-In-Patient-Care_2.pdf ,

Please refer to the Health Sciences Student Professional Behavior Code here:

<http://www.uky.edu/Regulations/AR/ar083.pdf>

Patient Records: Records bearing patient names or other forms of identification are NOT to be removed from the health care facility or the unit where the patient is located. Policies in force in other institutions must be followed in obtaining medical records.

Urine Drug Screens and Background Checks: Students are required to complete a urine drug screen and background check prior to beginning APPE rotations. These services are obtained through CertifiedBackground.com . In the event that a rotation site requires such information, the student will have the ability to provide sites with results of their background checks and urine drug screens.

College of Pharmacy Immunization Requirements: As a prerequisite for clinical rotations in the College of Pharmacy, students are expected to have appropriate immunizations for protection of the students and the patients they may see. Requirements not met at that time may require repeated vaccinations and may result in cancellation in registered courses for which immunizations are required. Third-year pharmacy students must complete the TB test by April 1st prior to beginning APPE. Failure to complete the TB test by April 1 may result in cancellation of registration and scheduling for APPE assignments. Students will not be permitted to participate in rotations if the immunization requirements are not up-to-date. Pharmacy students must meet the following Chandler Medical Center requirements:

University of Kentucky Immunization Requirements for Students with Clinical Responsibilities:

The following immunizations are required for all students involved in clinical activities in academic programs at the University of Kentucky. These requirements have been established to help protect health care providers and their patients during encounters with one another in clinical settings. We suggest that the only exclusion to these requirements be for medical contraindications. Each college is responsible for developing verification procedures and documenting compliance for their students. The College of Pharmacy requires copies of the compliance forms issued by the University Health Service and keeps these on file. Students are required to keep copies to take to their rotation site. Students are encouraged to have all immunizations prior to initial enrollment. However, immunizations are available for students through the University Health Service once they are enrolled. Appointments are necessary and may be made by calling 323-2778.

A. TUBERCULOSIS SCREENING

- Documentation of a negative Mantoux PPD skin test within six weeks prior to initial enrollment.
- If known positive, physician documentation of the positive test and a negative chest x-ray.
- Annual TB screening while the student remains enrolled.

B. MMR

- Proof of immunity to rubella, rubeola and mumps if born in 1957 or later. One of the following may be used as documentation:
 - Documentation of two MMR vaccines with the first at 12 months or older.
 - Documentation by a physician of having had rubeola, rubella and mumps diseases.
 - Documentation of positive rubeola, rubella and mumps titers.

C. HEPATITIS B

- A series of three injections at recommended intervals or documentation of a protective Hepatitis B surface antibody titer (>10 mIU/mL).
- For students completing the series of three injections after January 1, 1999, a Hepatitis B titer drawn 1-2 months after completing the series of three injections.
- If the Hepatitis B titer is negative after the initial series of three injections, the series of three injections should be repeated and a repeat titer drawn. If the titer remains negative, appropriate clinical evaluation is indicated.

D. VARICELLA

- Proof of immunity to varicella by one of the following
 - Positive history of chicken pox
 - Positive antibody titer
 - Immunization with varicella vaccine. (Full immunization requires a series of two injections. Current recommendations do not support post-immunization titers as commercial tests may lack the sensitivity to detect lower antibody levels associated with immunization compared with natural infection.)

E. TETANUS, DIPHTHERIA, ACELLULAR PERTUSSIS

- Documentation of one dose of Tdap vaccine as an adult.
- May be deferred if last Tetanus booster is within the past two years.

Please refer to Student Handbook for additional information regarding immunizations.

Professional Dress: Please refer to the Departmental policy below. This policy applies to all APPE rotations. Any considerations to the policy are to be determined by the preceptor at each individual site.

- In general, students should dress so that their most conservative classmate, instructor, client or patient would not be offended.
- Students must be neat and clean whenever they are attending classes in the College or the Medical Center. Shoulders must be covered. The midriff area of the body or undergarments must not be visible. Shorts and miniskirts should NOT be worn.
- Extremes in hairstyles, cosmetics and jewelry should be avoided. Nose rings, eyebrow rings and visible piercings other than earrings are not permitted during class in either the College of Pharmacy or Medical Center. ALL jewelry is prohibited when working in the aseptic compounding area as outlined in individual course syllabi.
- Professional dress is expected in the professional laboratories and at other times as specified by course instructors in course syllabi. Professional dress means business like attire – dress pants and dress shirt/sweater for men and dresses or skirts/dress slacks and blouses/sweaters/jackets for women. White lab coats (short length) are required when working in the professional laboratory and when participating in patient care activities.
- Specific dress code policies apply when working in the aseptic compounding laboratory. These policies are outlined in the individual course syllabi.

- All students must wear the approved identification badge, issued and validated by Medical Center Security at all times when they are in the College or the Medical Center. Name badges will be worn clipped on the right pocket of shirts or jackets, or worn around the neck. Name badges shall NOT be worn at the waist level or in other inappropriate locations.

Work: Work is not an excuse for missing rotation activities and students are not to schedule work hours that will conflict with the rotation schedule. The Office of Experiential Education has adopted the following policy relative to student employment while on APPE rotations:

- Students on experiential education rotations may not be paid for their activities by the site to which they are assigned. This is an accreditation requirement of ACPE. Students may receive housing, meal and travel allotments for off-campus educational experiences through the Area Health Education Center according to AHEC guidelines.
- The advanced practice rotations are designed to allow the student to gain competency in professional practice skills and exposure to a variety of practice opportunities. They also give the student opportunity to make contacts for future employment. Employment at assigned sites during a rotation period is permitted but may only take place outside of assigned rotation time (e.g.: weekends). Paid work activity shall not overlap or interfere with rotation activities, including grade assignments. Prior work experience will not prohibit a student from being assigned to a particular site for APPE rotation. Someone different than his or her primary work supervisor must supervise the student concurrently involved in the academic experience. Activities at the APPE site are academic activities and hold priority over any work activity.
- Students are encouraged to involve the course coordinator if they feel that their paid work activity at a site has impacted the quality of APPE experience or grade assignment. Students who may be considering a full-time post-graduation position are encouraged to delay final decisions until after completion of academic experiences at the institution.

The UK Inclusive Learning Community

The University of Kentucky is committed to creating and maintaining an educational community in which students, faculty, staff, and guests associate in an atmosphere free from all forms of harassment, exploitation, or intimidation.

The UK Inclusive Learning Community is defined by the active engagement of students, faculty, staff and alumni in the pursuit of learning in an environment of equality, civility, academic freedom, security and mutual respect for the rights and responsibilities of all members of the community. Such engagement is grounded in the ideals of democracy and world citizenship and is based on the best of current thinking, a serious pursuit of truth and genuine curiosity. Academic excellence and university vitality are dependent on a dynamic understanding and experience of the multiple contexts and realities that define our world.

Policies on Sexual and Racial Harassment:

Considered a form of sexual discrimination, sexual harassment is defined generally in terms of the following unwanted sexual advances, requests for sexual favors, or other verbal or physical actions of a sexual nature. The University of Kentucky expressly forbids the sexual harassment of students, faculty and staff.

No individual or identifiable group of person shall, on the basis of race, color or national origin, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination in employment or a University course, program, or activity. Racial harassment is a form of race discrimination that includes: different treatment without a legitimate, nondiscriminatory reason on the basis of race, color, or national origin in the context of employment, participation in a University course, program or activity which interferes with or limits the ability of an individual or identifiable group to participate in or benefit from privileges provided by the University.

Creation of a hostile environment on the basis of race, color or national origin that is sufficiently severe, pervasive, or persistent so as to interfere with or limit the ability of an individual or identifiable group to participate in or benefit from privileges provided by the University. The University of Kentucky expressly forbids the racial harassment of students, faculty and staff.

More information may be found on the Office of Institutional Equity and Equal Opportunity website: <http://www.uky.edu/EVPFA/EEO>.

Grading

Grades: Grades for each rotation are determined by the preceptor according to the criteria outlined in the rotation syllabus. Grades are determined on the following percentage basis:

90 - 100	A
80 - 89	B
70 - 79	C
≤ 69	E

See sample grade form and mid-rotation evaluation form in Appendix 1.

Please note that any student who is dismissed from their rotation for unprofessional conduct or clinical incompetence will automatically receive a failing grade for the rotation in question.

Midpoint Rotation Evaluation: Students will schedule a meeting around the middle of each rotation experience to review their progress. The preceptor will complete the Mid-Rotation Evaluation form provided by the student (available on the APPE web site; see sample Appendix 1). The student and the preceptor should both sign and keep a copy. The student must include the form in their Portfolio. This is a good time to refer back to the competency check sheet items and make sure that applicable items are on target for being completed. **Students will need 10 copies of this form. They are available for download on the APPE website.**

Evaluation of Student Performance: The preceptor completes the Evaluation of Student Performance grade form (Appendix 1). This can be completed online or printed and mailed to Mike Richardson. It is helpful to complete this in conjunction with the final review of the competency check sheet.

Professional Competencies: Additionally, each student must document achievement of professional competencies through the Portfolio/Competency Check Sheet process. APPE requirements include preparation of the student portfolio, attendance at the Mid-Year Evaluation meeting and provision of final documentation of completed competencies.

Evaluation of Advanced Pharmacy Practice Experience (APPE): Students will have the opportunity to **confidentially** evaluate the rotation and preceptor at the end of each month. These evaluations will be done electronically through CoursEval. It is important that feedback is obtained on the quality of the experience and preceptor. Grades will not be submitted to the registrar's office until rotation evaluations are submitted. To maintain confidentiality, individual rotation evaluations will not be released to preceptors. An aggregate report of rotation evaluations will be released 2 times a year.

Student Competency Check Sheet and Portfolio Review

Current standards of the Accreditation Council for Pharmacy Education (ACPE) require that graduates achieve competencies in the professional degree program (Standard 12) in the following areas:

- 1. Provide patient care in cooperation with patients, prescribers, and other members of an inter-professional 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 inter-professional team of health care providers.**

More detail on these standards can be obtained at www.acpe-accredit.org. The University Of Kentucky College Of Pharmacy utilizes a portfolio and competency check sheet process during the PY4 year to help assure that graduates have met the expectations in all areas. Information on this process is described below.

Portfolio Process

The process for student outcomes development includes a competency check sheet and a student portfolio.

- **Competency check sheet**

For each rotation, students will use a competency check sheet (See Appendix 2). The purpose of this form is to communicate to both PY4 students and preceptors the minimum competencies to be achieved and documented across all rotations during this year. Use of this form can assist students in developing skills and receiving feedback from preceptors. It is not expected that students will be able to demonstrate competence of all outcomes at all rotation sites. However, by the end of the ten-month rotation period, students should have the opportunity to demonstrate the minimally expected performance of knowledge and skills in all areas. Therefore, this form is to be used by the student to help plan to achieve all competencies during the ten rotations. **Students will need 10 copies of this form. They are available for download on the APPE website.**

- **Student Portfolio**

In addition to the competency check sheets (1 per rotation), the students will maintain a notebook of examples of work completed at a given rotation. Students should select examples that document achievement of the stated competencies. The student should use tabbed dividers to separate work completed during each rotation. Each tab should include a Competency Check Sheet for the rotation and the Mid-Rotation Evaluation. At a minimum, each student portfolio will include samples of the following:

Patient care documentation (maintaining patient confidentiality)

- Direct patient interaction – medication history, med reconciliation, patient counseling and/or MTM evaluation
- Patient care notes – pharmacokinetic, renal dosing, anticoagulation management, therapy monitoring, IV to PO switches
- ADR/ Medication Error reports
- Patient presentation with pharmacy care plan

Presentations

- Formal presentation with handout/slides for health care professionals
- Journal club presentation
- Presentation for public audience or health fair activity

Written Communications

- Formulary Management (P & T Committee) Material – e.g. drug monograph, therapy protocol review/development, QA activity
- Newsletter article (for health professional or public)
- Medication Use Evaluation (MUE)
- Drug Information Requests (1 patient specific, 1 other)
- Patient Education Material

Practice Areas

Compounding worksheet (1 sterile, 1 non-sterile product – see Appendix 2)
Practice Management Issues (Documentation of Discussion with Preceptor – See Appendix 2)
Patient Encounter Data Collection Form – Ambulatory, Medicine Selective (-see sample Appendix 2)

Students are required to submit 8 documents to the APPE Program over the year. Completed items will be collected for the Midyear Review with the remaining items submitted by the completion of the program. Instructions on submission of documents will be provided later in the year. The documents are:

1. Patient presentation/care plan
2. Presentation handout/slides (for health care professionals)
- 3-4. Two written communication samples (from list above)
5. Practice management discuss – com (See Appendix 2 for guidance)
6. Practice management discuss – hosp (See Appendix 2 for guidance)
7. Patient Encounter Data Collection Form – Ambulatory Care
8. Patient Encounter Data Collection Form – Medicine Selective

Patient Encounter Data Collection Form

Patient Encounter Data Collection Form

As part of your required portfolio documentation, the office will collect from each APPE student aggregate data on the number and type of interactions students have with patients across the variety of health care settings. Students will be provided a customized Excel form to document patient encounters over the **final two weeks of the required Ambulatory and Medicine Selective rotations**.

Use the form to document encounters for which you do more than a cursory review of the patient profile. The form is created in an easy to use format with drop down boxes and should be downloaded from the APPE website. At the end of each two week period, please email your completed form to Helen Garces (hiklar00@email.uky.edu) and print a copy to place in your portfolio.

Required Portfolio Procedure for Rotation

- **Portfolio review**

On the first day of each rotation, the student will provide his/her student portfolio to his/her preceptor. The student and preceptor should discuss the student strengths and weaknesses, as well as review the competency check sheet to develop a plan for achievement of specific competencies during the rotation. The portfolio should be returned to the student to maintain during that month.

- **Student self-assessment**

During the month, the student should use the competency check sheet to assess his/her own development toward achieving the intended competencies. The student column of the form should be completed by the beginning of the last week of the rotation.

- **Preceptor/student midpoint assessment**

Using the competency check sheet and portfolio, the student and preceptor will conduct a midpoint assessment to discuss student progress toward the stated goals. At this time, the student or preceptor should note the areas in which the student is deficient toward meeting the intended competencies. A plan should be made to assist the student to achieve these outcomes during the remaining portion of the rotation. This information is documented on the **Mid-Rotation Evaluation** form provided.

- **Preceptor final assessment**

The student and preceptor should review together the competency check sheet and discuss areas where the student's skills have improved, as well as areas the student needs further skill development in subsequent rotations. Appropriate notation should be made on the competency check sheet as well as the supporting documents so that the next preceptor may easily assess the student's level of performance. The preceptor will complete the Evaluation of Student Performance to submit the grade that takes into account accomplishment of the rotation specific goals/objectives and the grade parameters identified in the syllabus.

- **Support for Students & Preceptors**

For further assistance regarding the student portfolio process, students are encouraged to contact the Office of Experiential Education or the Clinical Training Coordinator (CTC) at your local Clinical Education Center (CEC).

Portfolio Monitoring – Progress in Meeting Required Competencies

- **Mid-year evaluation**

One time during the 4th, 5th or 6th month of rotations, each student will be required to meet with either Dr. Ann Amerson, Dr. Anne Policastri, or assigned CTC. Students will review the student portfolio and discuss progress toward competency achievement. The student's future scheduled rotations will then be reviewed to be certain that the student will have the opportunity to achieve all student outcomes during the remaining assigned rotations. The student will receive a sheet documenting any areas of deficiency and the future rotations where these deficiencies should be satisfied (Midyear Evaluation). A second form will be provided for the student to document the achievement of the competencies (Follow-up to Midyear Evaluation – available on the APPE website).

- **Student Preparation for the Midyear Evaluation**

During the last year of the program, students are expected to continue to develop skills to become self-directed lifelong learners. In preparation for the Midyear Portfolio Review, the student should conduct a self-assessment of competencies achieved and competencies remaining to be satisfied. During the discussion with the portfolio reviewer, **the student should be prepared** to discuss how they have achieved the competencies listed and support this with documentation in their portfolio.

The Competency Check Sheet Summary Guide will provide assistance in this process. A couple of examples are provided.

Example: Under the major heading of Provide Patient Care, one item under implementing the patient care plan relates to documenting interventions and outcomes. The student should have examples of chart notes (e.g. med history, patient counseling, pharmacokinetic recommendations, other monitoring), other forms to communicate recommendations, medication reconciliation forms, documentation of interventions in health system program, and ADR/ME reporting. Students do not necessarily need examples of every item listed but should have a variety of items to document their participation in patient care.

Example: Under the major heading of Provide Patient Care, one item relates to promote public awareness. The student should have some involvement in health promotion or disease screening activities for a group of patients. Health fairs, brown bags, immunization programs, MTM services, patient education (i.e. classes or med groups) are all examples where the student has an opportunity to have impact on the health of a group of patients.

- **Final evaluation**

Preceptors working with students during their 9th and 10th month should thoroughly review the portfolio and the Competency Check Sheet – Summary form to determine whether the student has achieved the student competencies. During this time, any areas of deficiency should be addressed, or if necessary, the course faculty should be consulted. At the end of the student's rotations, a copy of the Competency Check Sheet – Summary form, the Midyear Evaluation, and the Follow-up to the Midyear Evaluation should be sent to the Office of Experiential Education.

Four Major Areas for competency development during the course of 10 rotations

- A. Provide patient care
- B. Manage the practice
- C. Manage medication use systems
- D. General ability based professional skills

Activities described below are examples of opportunities for you to develop and demonstrate competency. Not all competencies apply to every rotation but over the course of your 10 rotations you should address each one.

Competency Check Sheet Summary – Guide

I. Provide Patient Care

Items A-G relate to individual patient care processes

A. Gather information **Items A – D** relate to patient-specific processes of gathering information from charts, health care providers, and/or patients and being able to organize that information to report/recommend key elements to a health care provider, team, and/or preceptor. Medication histories

B. Identify problem

C. Resolve problem

D. Collaborate with health care professionals – teams, committees, one-on-one – phone, written

1. Communicate patient information

2. Make recommendations

E. Implement pharmaceutical care plan – the preparation and delivery of the prescription is an important part of implementing a care plan. Students should understand and participate in these processes in different environments where applicable. Appropriate counseling/pt education is included here.

1. Prepare prescriptions (outpatient) - hands-on preparation of prescriptions in the identified setting

2. Prepare prescriptions (inpatient) - hands-on preparation of sterile and IV products to refresh their skills in this area

3. Document interventions and outcomes – e.g. chart notes, communication forms, reports of ADRs/MEs, other list of interventions

F. Maintain medical record – may include chart notes, entering orders correctly, updating profiles

G. Display attitudes, values, habits

1. Perform ethically and compassionately

2. Perform professionally

Items H-J relate to activities involving groups of patients, health care professionals, community organizations

H. Promote public awareness – involvement in disease screening or health promotion activities or education of a group of patients on disease/medication use; promotion of pharmacy/pharmacist

I. Provide information to health professionals –involvement in preparation and delivery of presentations (MDs, nurses, pharmacists and pharmacy techs etc.) or preparation of newsletters

J. Provide information to general public – presentations to schools, community groups, preparation of newsletters or flyers for patients; promotion of pharmacy/pharmacist

Competency Check Sheet Summary – Guide, continued

II. Manage the Practice
A. Manage Pharmacy Operations
1. Participate in personnel management activities– Observe and discuss with preceptor, personnel and supervision issues, staff development; understand/participate in checking process; hire, train, develop, supervise, motivate, retain, evaluate
2. Utilize computer skills and technological advancements–Use distributive and patient care systems. Use software to develop needed materials (forms, presentations, newsletters, etc)
3. Manage fiscal resources – Discuss and/or observe budget issues, managing finances for the business, inventory control, contracts, pricing, business plans
B. Manage Medication Distribution/Control
1. Evaluate drug orders or prescriptions – as relates to dispensing process and/or review of medication regimen
2. Compound drugs – hands-on preparation of a variety of extemporaneous products (e.g suspensions, topicals, solutions, troches, suppositories)
C. Comply with laws – see applications of pharmacy law
III. Manage Medication Use Systems
A. Manage medication errors/adverse drug reactions – participate in reporting and/or evaluation of individual patient issues, see how the information is used across the facility for quality improvement purposes (education of health professionals)
B. Participate in drug use evaluations – participate in some aspect of MUEs – data collection, review or reporting. Can assess need for quality improvement of a system or process related to the pharmacy operation
C. Understand formulary management – exposure to different formularies, participate in evaluating drugs for addition, attend P & T Committee meetings for the particular practice
D. Understand outcomes research/quality assessment – how does a facility assess quality of patient care? How does pharmacy improve its delivery of services – workflow change, procedure change
IV. General Ability-Based Professional Skills - Usually applicable in all rotations. Provide students feedback on areas where they can improve
A. Thinking
B. Communication
C. Decision making
D. Social and contextual awareness
E. Social Responsibility
F. Social Interaction
G. Self-learning abilities

Appendix 1 – Grade Forms

**UNIVERSITY OF KENTUCKY COLLEGE OF PHARMACY
PHR 988 - ADVANCED PHARMACY PRACTICE EXPERIENCE
MID-ROTATION EVALUATION**

Student Name: _____ Rotation Name: _____
Preceptor: _____ Month/Year: _____

Rotation Specific Learning Goals and Objectives (Check one item below)

- _____ Student is making satisfactory progress toward completing goals and objectives for the rotation experience
- _____ Student is making progress toward completing goals and objectives but still has some areas where growth and experience are needed (please specify):
- _____ Student is making some progress toward completing goals and objectives but still has several areas where significant growth and experience are needed (please specify):
- _____ Student progress is unsatisfactory – please contact the Experiential Education Program (859-323-3633)

General Ability-Based Professional Skills (Thinking, Communication, Ethics, Social Awareness and Responsibility, Social Interaction, Self Learning) (Check one item below)

- _____ Performs within and sometimes beyond the expectation of a student at this level
- _____ Performs within the expectation of a student at this level in most areas. Some areas are still in need of growth (please specify):
- _____ Performs within the expectation of a student at this level only in some areas. Several areas are in need of significant growth (please specify):

List two strengths for this student.

List two suggestions for improvement.

Preceptor Signature: _____ Date: _____
Student Signature: _____ Date: _____

**UNIVERSITY OF KENTUCKY, COLLEGE OF PHARMACY
 PHR 988 - ADVANCED PHARMACY PRACTICE EXPERIENCE
 EVALUATION OF STUDENT PERFORMANCE**

Student Name: _____ Month/Year: _____
 Rotation Name: _____ Site (UK, VA, etc.): _____
 Pharmacy Faculty: _____ Pharmacy Resident: _____

SUMMATIVE EVALUATION

Accomplishment of Rotation Specific Goals/Objectives *(Review competency/outcomes check sheet items)*

Overall Rating: _____ Exceeds Expectations _____ Meets Expectations
 _____ Needs Improvement _____ Unacceptable

GRADE PARAMETERS *(Should match areas/activities listed in the site specific syllabus)*

<u>Area/Activity</u>	<u>% of Grade</u>	<u>Score/Grade</u>
Clinical Performance <i>(rounding, monitoring, counseling, etc)</i>	_____	_____
Distribution Activities	_____	_____
Case/Educational Presentations	_____	_____
Written Assignments <i>(specify)</i>	_____	_____
Project	_____	_____
Final Exam <i>(oral/written)</i>	_____	_____
Journal Club	_____	_____
Professionalism /Attitude/Attendance	_____	_____
Other <i>(list):</i>		
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Comments:

Overall Performance (Grade): _____ *(100-90 = A; 89-80 = B; 79-70 = C; <70 = E)*

Signature of Evaluator _____ Date _____

Appendix 2 – Competency Check Sheet and Portfolio Related Forms

Competency Check Sheet – Summary	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
I. Provide Patient Care												
A. Gather information												
B. Identify problem												
C. Resolve problem												
D. Collaborate with health care professionals												
1. Communicate patient information												
2. Make recommendations												
E. Implement patient care plan												
1. Prepare prescriptions (outpatient)												
2. Prepare prescriptions (inpatient)												
3. Document interventions and outcomes												
F. Maintain medical record												
G. Display attitudes, values, habits												
1. Perform ethically and compassionately												
2. Perform professionally												
H. Promote public awareness												
I. Provide information to health professionals												
J. Provide information to general public												
II. Manage the Practice												
A. Manage Pharmacy Operations												
1. Participate in personnel management activities (<i>hire, train, develop, supervise, motivate, retain, evaluate</i>)												
2. Utilize computer skills and technology systems (<i>distributive and patient care systems; software use to develop needed products (forms, presentations, etc.)</i>)												
3. Manage fiscal resources (<i>budgets, contracts, pricing, inventory control, business plans</i>)												
B. Manage Medication Distribution/Control												
1. Evaluate drug orders or prescriptions												
2. Compound drugs												
C. Comply with laws												
III. Manage Medication Use Systems												
A. Manage medication errors/adverse drug reactions												
B. Participate in drug use evaluations												
C. Understand formulary management												
D. Understand outcomes research/quality assessment												
IV. General Ability-Based Professional Skills												
A. Thinking												
B. Communication												
C. Decision making												
D. Social and contextual awareness												
E. Social Responsibility												
F. Social Interaction												
G. Self-learning abilities												

Student Name:

Turn in a copy of this completed form at the end of the final rotation to the Office of Experiential Education.

Competency Check Sheet

This sheet should assist the student and preceptor in determining areas that require exposure or need continued development of skills. The preceptor should review this sheet and previous competency check sheets in the student portfolio with the student at the start of the rotation and discuss with the student the areas that they will be able to work on for the specific rotation. At the end of the rotation, the preceptors should discuss with the student the level of performance for the items agreed upon. The preceptor and student should sign appropriately to document their participation in this evaluation process.

Preceptor _____ Student _____

Site _____ Date of rotation _____

RATINGS

- EE** Consistently exceeds expectations. Independently completes most complex tasks and all basic, routine tasks. Consistently performs at the level of an exceptional 4th year pharmacy student. Often performs at the level of a new practicing pharmacist.
- ME** Meets expectations. Requires guidance and directed questioning to complete some or all complex tasks. Independently completes basic routine tasks. Performs at the level of an average to above average 4th year pharmacy student.
- NI** Falls below expectations. Requires guidance and directed questioning to complete basic routine tasks. Performs below the level of an average 4th year pharmacy student.
- U** Falls unacceptably below expectations. Unable to satisfactorily complete basic routine tasks despite directed questioning. The preceptor must complete the task.

Applicable
to this site:
Yes/No

Student

Preceptor

I. Provide Patient Care

	A. Gather and organize information in order to identify ongoing or potential drug-related problems and the root cause of the problems.		
	B. Plan and perform ongoing patient evaluation to identify additional drug-related problems and implement changes in the patient care plan.		
	C. Interpret and evaluate pharmaceutical data and related information needed to prevent or resolve medication-related problems or to respond to information requests.		
	D. Collaborate with physicians, other health care professionals, patients and/or their caregivers to formulate a patient care plan.		
	1. Communicate pertinent information from the patient's medical record.		
	2. Recommend medication doses and dosage schedules based upon relevant patient factors, such as pharmacodynamic, physiologic, and pharmacokinetic parameters.		
	E. Implement the patient care plan.		
	1. Accurately prepare prescriptions (outpatient setting).		
	2. Accurately prepare prescriptions (inpatient setting).		
	3. Document interventions and patient care outcomes.		

		Student	Preceptor
	F. Document patient care activity in the patient's medical record to facilitate communication and collaboration among providers.		
	G. Display the attitudes, habits and values required to render patient care.		
	1. Provide patient care ethically and compassionately.		
	2. Provide patient care in a professional manner.		
	H. Promote public awareness of health and disease – involvement in disease screening or health promotion activities or education of a group of patients on disease/medication use; promotion of pharmacy/pharmacist		
	I. Provide pharmaceutical information to health professionals – involvement in preparation and delivery of presentations (MDs, nurses, pharmacists & pharmacy techs etc.) or preparation of newsletters		
	J. Provide pharmaceutical information to the general public – presentations to schools, community groups, preparation of newsletters or flyers for patients; promotion of pharmacy/pharmacist		

II. Manage the Practice

	A. Manage Pharmacy Operations		
	1. Participate in personnel management activities (hire, train, develop, supervise, motivate, retain, evaluate)		
	2. Utilize computer skills and technology systems (distributive and patient care systems; software use to develop needed products (forms, presentations, etc))		
	3. Manage fiscal resources (budgets, contracts, pricing, inventory control, business plans)		
	B. Manage Medication Distribution and Control Systems		
	1. Evaluate drug orders or prescriptions.		
	2. Accurately and safely compound drugs in appropriate dosage forms.		
	C. Comply with federal, state, and local laws and related regulations that affect the practice of pharmacy.		

III. Manage Medication Use Systems

Student

Preceptor

	A. Participate in the patient care system's process for reporting and managing medication errors and adverse drug reactions.		
	B. Participate in the patient care system's process for conducting drug use evaluations.		
	C. Participate in the development, implementation, evaluation, and modification of a formulary system.		
	D. Apply principles of outcomes research and quality assessment methods to the evaluation of patient care.		

IV. General Ability-Based Professional Skills

	A. Thinking: Think critically, solve complex problems, and make informed, rational, responsible decisions within scientific, social, cultural, legal, clinical, and ethical contexts.		
	B. Communication: Communicate clearly, accurately, and persuasively with various audiences using a variety of methods and media.		
	C. Valuing and Ethical Decision making; Make rational, ethical decisions regarding complex personal, societal, and professional values.		
	D. Social and Contextual Awareness: Demonstrate the ability to place health care and professional issues within appropriate historical, cultural, social, economic, scientific, political, and philosophical frameworks, and demonstrate sensitivity and tolerance within a culturally diverse society.		
	E. Social Responsibility: Demonstrate an appreciation of the obligation to participate in efforts to help individuals and to improve society and the health care system.		
	F. Social Interaction: Function effectively in interactions with individuals, within group situations and within professional organizations and systems.		
	G. Self-Learning Abilities: Self-assess learning needs and design, implement, and evaluate strategies to promote intellectual growth and continued professional competence.		

Documenting Practice Management Experiences

The major areas listed will typically be covered in the required community pharmacy and community hospital rotations often through discussion with the preceptor or meetings with other individuals. As part of your portfolio, you must provide a 1 – 2 page write-up for both the required community pharmacy and community hospital rotations that addresses each of the four areas listed. Identify the type of person you learned from (e.g. pharmacy director, PIC, district manager, human resource manager), describe briefly what you did, and reflect on what you learned regarding the area. Some sample points are provided to use in discussion with your preceptor.

Operations Measures

- Is there a mission statement for the pharmacy and/or facility?
- Is there a policy and procedures manual? How is it used and updated?
- What continuous quality improvement activities (CQI) does the site employ?
- Describe the advantages and disadvantages of the current work flow.

Financial Performance Measures

- What documents does the pharmacy use to determine if it is financially successful (hospital versus community)?
- How is financial success defined (profit versus budget)?
- Does the pharmacy market its services? How so?
- What impact does generic utilization and/or preferred product use have?
- What are the third party issues in the community versus the hospital?
- What is required to initiate new services?

Inventory Management

- How does this play a role in financial success?
- What are goals relative to use of wholesaler versus buying group?
- Describe how inventory turns work and their role in drug expense management.
- Is there a process for obtaining drugs on an emergency basis (if supplies depleted or not stocked due to cost)?

Human Resources

- Are job descriptions provided for pharmacist and technician positions? How are these used in the performance evaluation process?
- What are key issues in interviewing potential employees or terminating existing employees?
- How is training for all employees handled?
- How are employee conflicts resolved?

FORMULA WORKSHEET

FORMULA NAME: _____

LOT/MANUF/EXP: INGREDIENTS: QTY: QTY USED:

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

See second page for product calculations TOTAL QUANTITY PREPARED: _____

QUANTITY DISPENSED: _____

PRODUCT NOTES: _____

DATE PREPARED: _____ BEYOND USE DATE: _____

LOT/RX #: _____ PREP/APPROVED BY: _____

STORAGE/SPECIAL INSTRUCTIONS: _____

DIRECTIONS AND PROCEDURES:

PRODUCT INFORMATION

PURPOSE OF INGREDIENTS:

PRODUCT'S THERAPEUTIC INTENT:

CALCULATIONS:

Dose check:

SPECIAL PATIENT INSTRUCTIONS:

PATIENT ENCOUNTER DATA COLLECTION FORM (Sample Entries)

Pt	Age	M/F	If Female Pregnant? Y/N	Race	Race: If other, please indicate	Disease State	Dx State: If Other, Please describe	Was there an intervention? Y/N	Reason for Intervention	Intervention: If Other, please describe	Please list healthcare providers other than pharmacists or pharmacy techs that you worked with.
1	Adult (≤65 yo)	M		Asian		Thromboembolic disease	(sample entry)	Y	Med added for untreated condition	(sample entry)	physician, nurse
2	Geriatric (>65 yo)	F	N	White/Caucasian		Asthma		y	Patient counseling session conducted		none
3	Adult (≤65 yo)	M		White/Caucasian		Hypertension		y	Actual or potential drug-interaction identified		physician, nurse
4	Geriatric (>65 yo)	M		White/Caucasian		Diabetes		Y	Patient counseling session conducted		none
5	Adult (≤65 yo)	F	Y	White/Caucasian		Thromboembolic disease		Y	Patient counseling session conducted		physician
6	Adult (≤65 yo)	M		Black/African American		Hypertension		Y	Non-compliance identified/resolved		none
7	Geriatric (>65 yo)	F	N	White/Caucasian		MI / Unstable Angina		Y	Non-compliance identified/resolved		physician
8	Adult (≤65 yo)	F	N	White/Caucasian		Asthma		Y	Dosage optimized/changed		physician, nurse
9	Pediatric (<18yo)	F	N	White/Caucasian		Other	Common Cold	Y	Med added for untreated condition		none
10	Pediatric (<18yo)	M		Hispanic		Other	Infection	Y	Other	Translated to Spanish for patient	none
11	Adult (≤65 yo)	M		White/Caucasian		Diabetes		Y	Patient counseling session conducted		none
12	Geriatric (>65 yo)	M		White/Caucasian		Dyslipidemia		Y	ADR/side-effect identified/resolved		physician, nurse
13	Adult (≤65 yo)	F	N	White/Caucasian		Other	Birth Control	Y	Patient counseling session conducted		none
14	Adult (≤65 yo)	M		White/Caucasian		Hypertension		Y	Patient counseling session conducted		none
15	Adult (≤65 yo)	M		Hispanic		Other	Infection	Y	Med discontinued due to no valid indication		physician, nurse
16	Geriatric (>65 yo)	F	N	White/Caucasian		COPD		Y	Med changed for better choice		physician, nurse
17	Adult (≤65 yo)	F	N	White/Caucasian		MI / Unstable Angina		Y	Non-compliance identified/resolved		none
18	Pediatric (<18yo)	M		Hispanic		Asthma		Y	Patient counseling session conducted		none

Experiential Education Site Requirements

The site in which the experiential course faculty member practices must meet certain standards to allow appropriate instructional experiences for the student. The practice must be such that the student assigned can readily:

1. Participate actively in the decision-making process of drug selection, patient information gathering and patient assessment; e.g., such as actively monitoring drug therapy, making patient rounds, participating in clinic/office practice activities, providing consultation or home health care referral, and intervening on behalf of patients.
2. Counsel patients on their medications and appropriately document counseling activities.
3. Participate in the routine monitoring of patients, utilizing patient assessment parameters, including drugs, nutrition, and pharmacokinetic monitoring and document interventions appropriately.
4. Design care plans for individual patients to help insure that desired drug therapy outcomes are met.
5. Provide drug and poison information to patients and other health care professionals.
6. Present education programs within the practice environment such as in-service programs to pharmacists, physicians, other health care professionals, selected patients, and/or appropriate community organizations.
7. Participate in medication use evaluation activities (MUE) or drug regimen review and outcomes research as applicable using available technology.
8. Attend and participate in scheduled conferences and meetings with health care professionals (e.g., local pharmacy association meeting); scheduled appointments with other health care professionals when appropriate, and/or public meetings related to health care issues.
9. Present patients and assigned topics to the preceptor.
10. Participate in special projects as assigned by experiential course faculty.
11. Interact regularly with the faculty member responsible for the rotation.
12. Use available current appropriate resources in order to enhance performance in practicing contemporary patient care.

Experiential Education Faculty Requirements

Experiential Education Faculty should:

1. Have a formalized relationship with the College of Pharmacy through the submission and approval of documents for an appointment in the College.
2. Have completed College of Pharmacy Preceptor Orientation Training module.
3. Have a comprehensive, patient-focused professional practice.
4. Be a licensed pharmacist with certified preceptor status in good standing with Kentucky Board of Pharmacy.
5. Possess a high degree of professional competency and motivation, common sense, good judgment, and an unquestionable standard of ethics.
6. Reflect an attitude, professional stature, and character that is suitable in serving as a role model for students.
7. Exhibit primary concern for the health of his/her patients. Professional ethics should operate to ensure the best possible health care for the patient.
8. Be responsible for patient care including the provision of effective instruction and information to the patient in order to ensure the safe and appropriate use of prescribed medications.
9. Be receptive to new ideas for the provision of patient care services.
10. Possess the qualities of a teacher, particularly the ability to motivate and communicate with students.
11. Demonstrate good professional relationships with other health professionals.
12. Communicate at regular intervals with other community- and campus-based faculty and the experiential course directors to exchange teaching experiences and to discuss, design, and implement ways to improve the learning experiences of students.
13. Continue the active pursuit of new knowledge, attitudes, and skills related to enhancing professional practice.
14. Foster student outcomes that are consistent with experiential course objectives.
15. Participate and allow students to participate in required Clinical Education Center Activities.

General Guidelines for Precepting Students

Orientation: Please assure that the student gets an appropriate orientation to the site and is introduced to appropriate individuals at the work site. Do not assume they know what they are supposed to do even though they have completed several rotations. Our students have the opportunity to participate in a variety of practice experiences and some will come to you with quite different experiences.

It is desirable that the preceptor meets with the student on the first or second day to review the expectations from the view of the preceptor. This is a time also for the preceptor and student to review the competency check sheet to identify areas that the student may need to work on during the month. Students may have individual goals to be addressed as well.

Feedback and Grading: Students should be given feedback on how they are performing either positively or negatively. A good approach is to have a midpoint evaluation for the student with discussion of strengths and areas for improvement using the Mid-Rotation Evaluation form. Students are assigned letter grades for Advanced Pharmacy Practice Experiences. You should follow the criteria as established in your syllabus and try to utilize a routine process for evaluation to provide consistency in your approach.

Midpoint Grade Review: Students will ask to schedule a meeting to conduct a midpoint review of their rotation month. The Mid-Rotation Evaluation should be completed at this time. This allows the opportunity to assess progress at the midpoint and develop a plan for any remediation if necessary. Forms will be provided to the preceptor by the students and once completed, the student will place it into their portfolio. Preceptors may wish to keep a copy for the final grade review.

Submission of Grades: Please note that grades can be submitted on-line. Grade forms are due into the experiential education office, usually about a week after the completion of rotation. If grade forms are needed, please contact Mike Richardson.

Online resources: We maintain a web site especially for the advanced pharmacy practices program. Each preceptor will need a site code and password to access the entire site. Please contact Mike Richardson if you do not have this information. The web address is www.uky.edu/Pharmacy/clerkship.

Unique, Critical Experiences Provided by Advanced Community Hospital Rotations

Students in Advanced Community Hospital Rotations need to achieve competency in the major areas of “Manage the Practice” and “Manage Medication Use Systems” as identified on the Competency Check Sheet while also being involved in patient care activities. Often, students tend to gravitate more towards patient care responsibilities and less toward the business/administrative aspects of practice. Your rotation experience may provide the only opportunity for the student to achieve knowledge and application on information related to managing a hospital pharmacy. Please review your rotation experience to see which of the following components you are routinely covering with students. If areas on this list are not addressed, please consider how the student might be involved either through discussions, meetings or other activities.

Business Management

- Financial performance measures (metrics)
- Budgeting and variance reports
- Methods of cost evaluation
- Drug expense management
- Inventory Control – turns
- Purchasing Process
- Work Flow Issues
- Third Party Issues
- Policies/Procedures
- Quality Assurance/CQI Activities

Human Resource Management

- Interviewing potential employees
- Training
- Employee evaluation processes
- Conflict resolution

Medication Use Systems

- Medication errors/ ADRs – using information for quality assurance
- Medication use evaluation (MUE)
- Formulary Management/P& T Committee – policies, protocols, evaluations of drug use

Unique, Critical Experiences Provided by Advanced Community Pharmacy Rotations

Students in Advanced Community Pharmacy Rotations need to achieve competency in the major areas of “Provide Patient Care” and “Manage the Practice” as identified on the Competency Check Sheet. Often, students tend to gravitate more towards achieving competency in patient care responsibilities and less toward the business aspects of practice. Your rotation experience may provide the only opportunity for the student to achieve knowledge and application on information related to business practices. Please review your rotation experience to see which of the following components you are routinely covering with students. If areas on this list are not addressed, please consider how the student might be involved either through discussions, meetings, or other activities.

Business Management

- Operating Statement – Cost of goods sold, Gross profit, Net Income, Controllable versus Non-controllable expenses, Loss or Shrink, Sales, Gross Profit Margins (Store front versus Pharmacy), Net Profit Margin
- Generic Utilization – value for patient and business
- Inventory Control – turns
- Wholesaler versus Warehouse orders
- Budgeting – fixed versus flexible
- Work Flow Issues
- Third Party Issues
- Policies/Procedures
- Quality Assurance/CQI Activities

Human Resource Management

- Interviewing potential employees
- Training
- Employee evaluation processes
- Conflict resolution

Rotation Check List for Preceptors

Beginning of Rotation

_____ Conduct orientation with student.

_____ Conduct initial Portfolio Review with student and identify areas of concentration for the rotation.

Middle of Rotation

_____ Midpoint Portfolio Assessment - Using Competency Check Sheet and Student Portfolio

_____ Midpoint Grade Review - Use Mid-Rotation Evaluation

End of Rotation

_____ Final Assessment of Portfolio - Using Competency Check Sheet & Student Portfolio

_____ Complete Evaluation of Student Performance form (online)

Appendix 4 – Statewide Rotations

UK/VA Parking: When assigned to UK and VA rotations, students may purchase an employee parking sticker for the assigned month(s). A memo authorizing the student's eligibility for the sticker must be obtained from Mike Richardson. Contact him by email or phone to determine the best way to obtain the memo. The student then takes this memo to the UK parking office to purchase the parking pass.

UK Patient Care Information Training: Students assigned a UK patient care rotation require a training class on the University Hospital Computer Patient Care Information System. The training is only required for a student's first UK rotation. Students required to attend this training for the month of May will receive a separate memorandum regarding this class. Students assigned a UK patient care rotation and who have not received the UK Computer Training will be notified via the Experiential Education Program web site. The memorandum with the necessary information will be available at the home page of the Experiential Education Program Web site at www.uky.edu/Pharmacy/clerkships/, under the "Information for Students" heading. The memorandum will be available for viewing and/or printing in an Adobe Acrobat reader file. This memorandum will be posted by the 15th of the month for the next month, i.e. the memorandum for June will be posted by May 15th. Please note that your preceptors will be notified of the requirement for you to attend this training.

UK Pharmacy Services Student Orientation: This orientation is required for first time students during the afternoon (1-3pm) of the first day of their first UK rotation. The purpose of this orientation is to provide an overview of pharmacy services, general expectations, and tips to be successful at UK during APPE rotations. Students should expect to attend this meeting during their first rotation at UK. Scheduling for this will occur in a similar fashion to UK Patient Care Information Training.

UK Pharmacy Grand Rounds: Please note that students who are on UK and VA rotations are expected to attend Pharmacy Grand Rounds. Pharmacy Grand Rounds are held most Fridays from noon to one. The location is subject to change. The schedule will be posted on the APPE website.

Policy on Educational Exposure to Blood Borne Pathogens (UK/Lexington Area): An educational exposure to blood-borne pathogens is defined as a percutaneous injury (e.g. a needlestick or cut with a sharp object), contact with mucous membranes or contact with skin (especially when the exposed skin is chapped, abraded, or afflicted with dermatitis, or the contact is prolonged or involving an extensive area) with blood, tissues, or other bodily fluids to which universal precautions apply, which occurs in the educational setting.

In the event of such an exposure, the University of Kentucky has an established a protocol that requires immediate action to initiate regardless of where the student experience is being conducted.

1. Perform basic first aid
2. Contact University Health Service (859) 323-2778 or after hours page on-call University Health Service Physician (859) 323-5321 with source patient information
3. Obtain baseline laboratory test
4. Pick up prophylactic medication if prescribed at the designated pharmacy
5. Report injury to supervising clinician/preceptor and to AHEC Site coordinator if appropriate
6. Visit University Health Service for follow-up testing

For the full policy, please go to link:

http://www.uky.edu/Provost/APFA/HCC_Documents/BBP_Policy_03_15_07.pdf

Policy on Educational Exposure to Blood Borne Pathogens (OUTSIDE of the Lexington Area): Hospital and medical center pharmacies have been identified as providers of medication in the event that prophylactic medication is necessary. A list of the pharmacies by county is provided in the web link below. The AHEC Site Coordinator should also be notified.

<http://www.mc.uky.edu/ahec/Students.htm>

APPENDIX 5 – LOUISVILLE AREA CEC

Clinical Training Coordinator: The CTC for the Louisville Area CEC is **Dr. Christopher Miller**. Please contact Dr. Miller with any questions or if you need assistance and are on rotation in the Louisville area.

Contact information:

Christopher Miller, PharmD, MS, MBA, BCNSP
Clinical Training Coordinator – Louisville Area
University of Kentucky College of Pharmacy
UK Clinical Education Center at Norton Healthcare
315 East Broadway, Suite 50
Louisville, KY 40202
Phone: 502-629-6838
Fax: 502-629-8233

CEC Presentation Requirements: APPE students assigned to the Louisville CEC will participate in seminars, journal clubs, and patient case presentations at the Clinical Education Center in the Norton Healthcare Faculty. These sessions will occur at the middle and end of rotation (please refer to the presentation schedule that will be provided by Dr. Miller.) Student presentations will be coordinated by the individual rotation preceptors and Dr. Miller. Additional participants may include non-CEC pharmacy students assigned to a Louisville area rotations, pharmacy residents, preceptors from APPE rotations, and other interested people. Expectations for CEC presentations will be outlined in individual rotation syllabi with general guidance on development of presentations provided by Dr. Miller.

Policy on Educational Exposure to Blood Borne Pathogens (OUTSIDE of the Lexington Area): Hospital and medical center pharmacies have been identified as providers of medication in the event that prophylactic medication is necessary. A list of the pharmacies by county is provided on the AHEC website (see link below.) The AHEC Site Coordinator should also be notified.

<http://www.mc.uky.edu/ahec/Students.htm>

APPENDIX 6 – Owensboro-Greater Daviess County CEC

Counties included in the CECin:

Daviess, Hancock, Henderson, Hopkins, McLean, Muhlenberg, Ohio and Webster counties are included. This can be viewed as a point and click map by pointing your web browser to:

<http://www.uky.edu/Pharmacy/clerkships/west.html>

Clinical Training Coordinator (CTC): The CTC for the Owensboro-Greater Daviess County CEC is **Dr. Michael Berger**. Please contact Dr. Berger with any questions or if you need assistance,.

Contact information:

Michael C. Berger, Pharm.D.
Clinical Training Coordinator-Owensboro-Greater Daviess County Area
Department of Pharmacy Practice & Science
University of Kentucky College of Pharmacy
UK Clinical Education Center at Owensboro Medical Health System (OMHS)
811 East Parrish Avenue
Owensboro, KY 42303
Phone: 270-688-4226
Fax: 270-691-0948

CEC Meetings: Due to the geographical distribution of sites within the Owensboro-Greater Daviess County CEC meetings will occur monthly, typically on the third Thursday of each month. The CTC reserves the right to change dates and times if necessary and will notify students and preceptors if there is a change that needs to occur. The agenda and handouts for the CEC meetings will be posted, usually by the second week of the APPE at the following site: <http://www.uky.edu/Pharmacy/clerkships/OCECMtgs.html>

CEC Presentation Requirements: APPE students assigned to the Owensboro-Greater Daviess County CEC will participate in seminars, journal clubs, and patient case presentations at the Clinical Education Center in OMHS Parrish Avenue Facility. CEC students will be required to give at least two presentations, one being a patient case presentation and the other being either a journal club or seminar topic. Please refer to the presentation schedule that will be provided by Dr. Berger. Student presentations will be coordinated by the individual rotation preceptors and Dr. Berger. Additional participants may include non-CEC pharmacy students assigned to a rotation site in the CEC area, pharmacy residents, preceptors from APPE rotations, and other interested people. Expectations for CEC presentations will be outlined in individual rotation syllabi with general guidance on development of presentations provided by Dr. Berger.

Policy on Educational Exposure to Blood Borne Pathogens (OUTSIDE of the Lexington Area): Hospital and medical center pharmacies have been identified as providers of medication in the event that prophylactic medication is necessary. A list of the pharmacies by county is provided on the AHEC website (see link below.) The AHEC Site Coordinator should also be notified.

<http://www.mc.uky.edu/ahec/Students.htm>

SOAP NOTE OVERVIEW

- SOAP notes are a common documentation format for documenting patient encounters and communicating important information about a patient to other providers
- SOAP stands for **S**ubjective, **O**bjective, **A**ssessment, and **P**lan
 - Each of these relate to a part of the note that contains a specific type of information
 - The Subjective and Objective contains information from the patient, exams, and lab tests.
 - This information serves as the basis for the assessment, plan, and follow-up
 - The Assessment and Plan should succinctly convey the providers assessment of the problem (e.g. Drug Therapy Problem), what was done for the patient at the visit, and the plan to be initiated at the visit, along with a plan for follow-up
- **Subjective Information**
 - Subjective information cannot be measured directly
 - May not always be accurate or reproducible
 - Based on patient's interpretation and recall of the past
 - Information that should go into the Subjective includes:
 - Chief Complaint (CC or Reason for Encounter)
 - Why the patient is interacting with the provider
 - History of Present Illness (HPI)
 - A description of the relevant events leading up to the encounter
 - significant positive and negative information on the quality, severity, duration, time variation, or modifying factors or associated symptoms
 - Past Medical History (PMH)
 - Listing of disease states or other complaints
 - Social History (SH)
 - Diet, alcohol, tobacco, recreational drug use
 - Caregiver status, occupation, sexual history, and living conditions (document as relevant to situation),
 - Family History (FH)
 - Medical problems in the patient's family
 - Allergies
 - Patient medication allergies or lack thereof
 - Drug Intolerances/ADRs
 - Document drug and description of reaction/intolerance
 - Review of Systems
 - screening device used to uncover potentially significant symptoms not initially elicited from the patient
 - For the pharmacist, this may help identify the following:
 - adverse effects that the patient has not attributed to their medication therapy
 - other medical problems
 - Series of "head to toe" questions

Example Review of Systems

REVIEW OF SYSTEMS	General Systems	Poor appetite	GU/Reproductive	Dysmenorrhea/menstrual bleeding
		Weight change		Incontinence
		Pain		Impotence
		Headache		Decreased sexual drive
		Dizziness (vertigo)		Vaginal discharge or itching
	EENT	Change in vision		Hot flashes
		Loss of hearing	Kidney/Urinary	Urinary frequency
		Ringing in the ears (tinnitus)		Bloody urine (hematuria)
		Bloody nose (epistaxis)		Renal dysfunction
		Allergic rhinitis	Hematopoietic Symptoms	Excessive bruising
		Glaucoma		Bleeding
		Bloody sputum (hemoptysis)		Anemia
	Cardiovascular	Chest pain	Musculoskeletal	Back pain
		Hyperlipidemia		Arthritis pain (osteo/rheumatoid)
		Hypertension		Tendonitis
		Myocardial Infarction		Painful muscles
		Orthostatic hypotension	Neuropsychiatric	Numb, tingling sensation in extremities (parasthesia)
	Pulmonary	Asthma		Tremor
		Shortness of breath		Loss of balance
		Wheezing		Depression
	Gastrointestinal	Heartburn		Suicidal
		Abdominal pain		Anxiety, nervousness
		Nausea		Inability to concentrate
		Vomiting		Seizure
		Diarrhea		Stroke/TIA
		Constipation		Memory loss
	Skin	Eczema/Psoriasis	Infectious Disease	HIV/AIDS
		Itching (pruritis)		Malaria
		Rash		Syphilis
	Endocrine Systems	Diabetes		Gonorrhea
		Hypothyroidism		Herpes
		Menopausal Symptoms		Chlamydia
	Hepatic	Cirrhosis		Tuberculosis
		Hepatitis		
	Nutrition/Fluid/Electrolytes	Dehydration		
		Edema		
		Potassium deficiency		

Common Subjective Parameters

Anxiety	Headache	Palpitations
Bloating	Heartburn	Pounding pulse
Blood-tinged sputum	Heat intolerance	Rash
Blurred vision	Impotence	Seizures
Breast tenderness	Indigestion	Shortness of breath
Chills	Insomnia	Slurred speech
Cold intolerance	Itching	Sneezing
Confusion	Joint pain	Sore throat
Constipation	Loss of appetite	Syncope
Cramps	Loss of libido	Thirst
Decreased appetite	Muscle aches	Tingling
Depression	Muscle weakness	Tinnitus
Diarrhea	Nasal congestion	Tremor
Difficulty concentrating	Nasal itching	Vertigo
Dry skin	Nausea	Weakness
Dysuria	Nervousness	Wheezing
Fatigue	Numbness	
Flatulence	Pain	

Table from Tietze KJ, *Clinical Skills for Pharmacists*, p. 139.

- Medication History (Where does it fit?)
 - The medication could technically fit into either subjective or objective when you consider the source(s) of the medication history
 - Ideally the medication history should reconcile how the medication was prescribed with how the patient is actually taking the medications
- **Objective Information**
 - Objective information is measurable and observable
 - Not influenced by emotion or prejudice
 - Reproducible
 - Information that should go into the Objective includes:
 - Vital signs
 - Laboratory test results
 - Diagnostic test results
 - Physical Examination or observations by the practitioner
 - Pill Counts
 - Pharmacy profile information (e.g. refill history)

Common Objective Parameters

Height and weight

Vital signs – Temperature, blood pressure, heart rate, respiratory rate

Blood chemistries – Sodium, potassium, chloride, carbon dioxide content, glucose, creatinine, aspartate aminotransferase, alanine aminotransferase, bilirubin, calcium, magnesium, cholesterol, triglycerides, alkaline phosphatase, lactic dehydrogenase, uric acid, urea nitrogen

Blood gases – pH, P_{CO₂}, P_{O₂}, bicarbonate

Blood proteins – Total protein, albumin, complements, immunoglobins

Hematology – Hemoglobin, hematocrit, mean corpuscular volume, mean corpuscular hemoglobin concentration, red blood cell count, white blood cell count and differential

Urinalysis – Specific gravity, cellular content, protein

Cultures and sensitivities – Blood, urine, sputum, tissue

Serum blood concentrations

Specific organ system tests – Peak expiratory flow rate, forced expiratory volume in 1 second and forced vital capacity (and the ratio of the two), ejection fraction, triiodothyronine, thyroxine, thyroid-stimulating hormone, creatinine clearance

Miscellaneous – Urine output, abdominal girth, number of loose stools per day, input and output

Table from Tietze KJ, Clinical Skills for Pharmacists, p. 139.

• Assessment

- Succinct, complete description of each problem including the practitioners assessment of the problem
 - The assessment of each problem should be logically based on the data presented in the subjective and objective portion of the note
 - Must include assessment of severity and acuity for each problem
 - Should identify all factors that could be causing or contributing to the problem
 - This includes risk factors, such as those that may be identified in a patient with hypercholesterolemia, hypertension, diabetes, etc.
- The assessment should be formatted as a problem list
 - The most important/urgent problem first, least urgent last
 - In the case of a Pharmacist provider the assessments can be categorized through the perspective of a drug therapy problem.
 - Can also be categorized as medical problems
- Drug Therapy Problems
 - Drug therapy problems are undesirable events or risks that the patient experiences that inhibit or delay him/her from achieving the desired goals of therapy
 - There are three components to each drug therapy problem and all three need to be described for each of the patient's drug therapy problems.
 - The clinical PROBLEM the patient is having, the DRUG THERAPY that is associated with the problem, and the relationship between that problem and the drug therapy. The relationship represents the specific cause of the drug therapy problems.
 - Examples:
 - The patient requires additional calcium supplements in order to prevent osteoporosis
 - The patient's elbow pain is not being effectively controlled because the dosage of ketoprofen he has been taking for the past 3 days is too low to provide relief

• Plan

- Record of what a pharmacist did, recommends or plans to do for the patient
 - The plan should be clear, concise, and complete
 - A person unfamiliar with the patient should be able to determine what exactly is being done for the patient

- The Plan should be formatted to mirror the Assessment
- Information commonly included in the plan:
 - Goals of Therapy
 - Goals of therapy are established for each indication of drug therapy
 - Desired goals of therapy are described in terms of observable or measurable clinical and/or laboratory parameters to be used to evaluate effectiveness and safety of drug therapy. In general goals of therapy fit into one the following areas:
 - Cure a disease
 - Reduce or eliminate signs and/or symptoms
 - Slow or halt the progression of a disease
 - Prevent a disease
 - Normalize laboratory values
 - Assist in the diagnostic process
 - Structure of a goal of therapy
 - Clinical parameters
 - Signs, symptoms, and/or laboratory values
 - Should observable, measurable, and realistic
 - Desired value or observable change in the parameter
 - Specific timeframe in which the goal is to be met
 - Examples:
 - Feel better soon vs Eliminate elbow pain within 24 hours
 - Lower blood pressure vs Decrease diastolic blood pressure below 85 mmHg within 30 days
 - Treat allergic rhinitis vs Eliminate rhinorrhea and conjunctivis within 2-3 weeks
 - Description of recommended or intended further work-up (laboratory, radiology, consultation)
 - Treatment (medications, surgery, diet, physiotherapy, continued observation)
 - Patient education (self-care, goals of therapy, medication use and monitoring)
 - Monitoring and follow-up relative to above assessment
 - Follow-up plan should be appropriate for the clinical situation
 - Take into account both effectiveness and safety
 - Follow-up plan should be
 - at planned interval
 - method or means follow-up will occur
 - Telephone vs. face-to-face
 - monitoring parameters to be assessed