West Virginia University
School of Pharmacy
Summer, Fall 2014 and Spring 2015

Acute Care APPE (Pharmacy 760/761)
Ambulatory Care APPE (Pharmacy 762/763)
Advanced Practice Community APPE (Pharmacy 770)
Advanced Practice Institutional APPE (Pharmacy 772)
Patient Care Elective APPE (Pharmacy 764/765)
General Elective (Patient Care or Non-Patient Care) (Pharmacy 766)
5 credit hours each

Course Coordinator:

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Abbreviations:

WVU SoP       West Virginia University School of Pharmacy
OEL           Office of Experiential Learning
ELC           Experiential Learning Committee
APPE          Advanced Pharmacy Practice Experiences
**Required Texts**

To be assigned by each individual preceptor at the rotation site.

**Other Required Items**

Students are required to have two Smart Phone programs. Any two of the following are acceptable: Clinical Pharmacology, Epocrates RX, Micromedex or Lexi-Comp.

Professional attire is required when students are at experiential sites. The student is expected to adhere to the WVU School of Pharmacy Dress Code Policy and Procedures for Doctor of Pharmacy Clinical Rotations. This includes a white laboratory coat with an identification badge. [http://pharmacy.hsc.wvu.edu/studentservices/MediaLibraries/Pharmacy-Studentservices/Media/Documents/PDF/Dress-20code.pdf](http://pharmacy.hsc.wvu.edu/studentservices/MediaLibraries/Pharmacy-Studentservices/Media/Documents/PDF/Dress-20code.pdf)

Exceptions to the SOP dress code must be written in the preceptor’s rotation description.

**Catalog Description**

PR: Fourth professional year standing required. This is a capstone experience providing students with 5-week full time advanced practice experiences.

**Curriculum Overview**

The advanced practice experiential program consists of a minimum of 1600 clock hours completed during the fourth (4th) year of the professional program. Students complete rotations in the summer, fall and spring semesters. Students will complete a minimum of 200 clock hours for each rotation (5 week block).

**Course Descriptions**
For individual rotation course descriptions, see Appendices A-F

**APPE Curriculum:**

Eight block rotations, 5 weeks in duration. The following combination of rotations is required for successful completion:
A. 1 Acute Care (Medicine) (PHAR 760)
B. 1 Ambulatory Care (PHAR 762)
C. 1 Medicine/Acute or Ambulatory Care (PHAR 761 or 763)
D. 1 Advanced Practice Community (PHAR 770)
E. 1 Advanced Practice Institutional (PHAR 772)
F. 2 Patient Care Electives (PHAR 764, 765)
G. 1 General Elective (either patient care or non-patient care) (PHAR 766)

Either a community or institutional rotation may be chosen as an elective experience; however, the total number of Advanced Practice Community and Institutional rotations cannot exceed 3 of the 8 rotations.

To comply with state legal requirements, two of the eight block rotations must be completed at sites designated as a rural rotation site. The designation of rural is determined by the OEL.

All faculty and faculty-equivalent rotations must be filled prior to all other rotations. Each student will be provided with a list of these rotations.

In addition to completion of all APPE rotations and related assignments and evaluations, all students will participate in a longitudinal journal club experience. Pharmacy journal club will take place at the WVU Charleston Campus and the WVU Morgantown Campus. Students will be assigned to complete a journal club presentation as well as attend journal club presentations of other students.

**Requirements to Begin APPE Rotations**

The student must provide documentation of the following items to the Office of Students prior to the start of block 1:

1. A two-step PPD test. (Please refer to the WVU SOP Student Handbook.)
2. Completed OSHA training module on SOLE. A hard copy confirmation must be provided to the Office of Student Services.
3. Completed HIPAAAA training module on SOLE. An automatic confirmation will be sent from SOLE to the Office of Student Services.
4. Completed CPR and First Aid training program from American Red Cross or American Heart Association.
Additionally, students must complete ALL preparatory sessions and activities provided during IPPE 5 and 6.

Course Ability Based Outcomes
For individual rotation course ability based outcomes, see Appendices A-F. For ability based outcomes related to rural rotations, see Appendix G.

Educational Outcomes (from the WVU School of Pharmacy Educational Outcomes)

This course is designed to help students achieve part/all of the following educational outcomes (EOs) and General Abilities (GAs) from the Doctor of Pharmacy Program Educational Outcomes.

EO 1  Provide Pharmaceutical Care to Patients

I. Individual Patient Care

A. Obtain, organize, interpret, and evaluate patient-specific information needed to prepare a patient care plan or to identify, prevent, and resolve drug product or pharmacotherapy problems.
B. Interpret and evaluate pharmaceutical and related information, including drug, dosage form, delivery system, and insurance coverage, needed to prepare the care plan.
C. Prepare and implement an individualized patient care plan.
D. Perform ongoing patient monitoring and evaluation to identify drug product or pharmacotherapy related problems, patient concerns, or adherence issues, and assess the care plan's success.
E. Adjust and modify the care plan as needed.
F. Accurately interpret, prepare/compound, handle and dispense prescriptions for patients.
G. Provide counseling to patients and/or caregivers relative to the proper use, effects, storage, and handling of medications, the proper use of medical goods and devices, and non-drug and healthy lifestyle changes to help ensure the patient care plan's success.
H. Educate patients and enable them to take an active role in their health and self-care.

EO 2  Participate as an Interprofessional Health Care Team Member
A. Collaborate and interact directly with physicians, other health care professionals, patients, and/or their caregivers to integrate and ensure continuous care and to achieve desired patient-specific, population-based, resource, systems, or public health outcomes.

B. Provide required or requested pharmaceutical and therapy-related information to members of the health care team.

**EO3  Apply an Evidence-Based Approach to Care Provision and Pharmacy Practice**

A. Formulate clear, specific questions that address patient or other health care needs, concerns, or problems.
B. Retrieve, analyze, and interpret scientific and other information to prepare responses or conclusions that address specific needs or problems.
C. Integrate the best evidence from the scientific literature and other resources with clinical expertise and patient values to address specific needs, concerns, or problems.
D. Keep abreast of significant new findings and use them in practice.

**EO 6 Conduct Pharmacy Practice Duties and Care Responsibilities in Accordance with Professional Guidelines and Laws**

A. Comply with federal, state, and local statutes and regulations and current practice standards.
C. Exhibit professionalism and ethical behavior in all responsibilities.

**EO 7 Utilize Health Care Informatics**

A. Work with and abide by security procedures for controlling and securing electronic patient data and information, including ethical and legal issues.
B. Use e-mail, word processing and presentation software for professional communications such as papers, reports, assignments, and presentations.
C. Access needed information (e.g., patient data, scientific literature) from electronic databases or records.
D. Use technology to maintain knowledge and employ information system applications to enhance the safe and effective use of
medications, e.g., electronic medical records, prescription order entry, computer-generated reminders, decision support systems, etc.

General Abilities

GA 1  Fundamental Knowledge (Apply scientific, mathematical, pharmaceutical, and socioeconomic knowledge, principles, and concepts to resolve drug therapy questions and/or problems)

GA 2  Decision Making and Problem-Solving (Make informed and rational decisions based on a thorough and critical analysis of available information and use principles of scientific reasoning when solving problems)

GA 3  Verbal and Non-Verbal Communication (Communicate effectively, verbally and non-verbally, with audiences of different types and sizes)

GA 4  Written Communication. (Write and use a variety of written formats to communicate effectively with audiences of different types and sizes)

GA 5  Values and Ethics (Discuss the influence of values on ideas and actions and demonstrate ethical conduct in personal and professional settings)

GA 6  Self-Learning (Demonstrate the interest and ability to independently pursue new knowledge and skills, conduct self-assessments, and respond appropriately to remedy any deficiencies in light of feedback and new information obtained)

GA 7  Social Responsibility and Citizenship (Demonstrate an appreciation for cultural diversity and differences of opinion, an understanding of how societal issues affect human behavior, events, and professional practice, and effective interpersonal and intergroup behaviors)

GA 8  Information Retrieval/Literature Assessment (Identify, retrieve, analyze, and evaluate information from resources and published literature, formulate conclusions, and apply the knowledge gained to decision making, problem solving, and patient care)

GA 9  Leadership (Identify leadership styles and factors that influence the ability to initiate change in the profession, analyze and critique personal
strengths and weaknesses in assuming leadership, and exhibit leadership skills and the ability to initiate change)

**Required Activities Outside of Rotation Site and Rotation Hours**

Individual rotations may require work to be completed outside of the rotation site and/or regular work time. Further, the student should be prepared to work on weekends and evenings if requested, as extended hours frequently occur in most practice sites. Each rotation is designed to provide a minimum of 200 hours of experience; however, in many instances more than 200 hours may be required to successfully fulfill the requirements of an individual rotation. Preparation, homework, active participation, frequent communications, completion of assignments and duties, and evaluations are required if academic and licensure credit are to be received. Although rotations are not a traditional classroom setting, homework may be assigned and must be completed on time. Examples include but are not limited to reading/analysis of journal articles, calculations, projects, patient care plans, evening presentations, and community/service learning projects.

**Required Submissions at the End of Rotation**

The following items must be submitted by the last day of each rotation:

1. Completion of hours log on E*Value
2. Completion of student self-assessment on E*Value
3. All rotation specific assignments on E*Value

The following item must be submitted within 5 days of the end of each rotation:

4. Evaluations of preceptor and site (through E*Value)

**Required Submissions at the End of the Second Required Rural Rotation**

The following item must be submitted by the last day of the second rural rotation:

1. Rural Experience Reflection on E*Value

Failure to submit all required items may delay approval for graduation. Students may not graduate until all required components of APPE are completed, including submission of duty hours, assignments, and evaluations.
Evaluation and Grading Policies

Each APPE rotation is evaluated using a competency-based evaluation consisting of six competency domains: professionalism, communication, pharmacy knowledge, patient care, drug information/evidence based pharmacy practice, pharmacy systems and population-based care/public health.

The grading policy allows for the issuance of pass (P), honors (H), fail (F), incomplete (I) and not reported (NR) grades.

Grading for all APPE rotations:

The APPE is made up of eight 5-week rotations that span 3 semesters during the P4 year. Successful completion of the APPE is required for graduation. In order to successfully complete APPE, the following MUST occur:

1. The student must receive a grade of “P” or “H” for all eight rotations.
2. The student must receive a passing score for each competency area accessed as outlined in the APPE general syllabus or complete successful remediation for all failed competencies.
3. The student must meet all APPE requirements as outlined in the APPE general syllabus.

To receive a grade of “H”, the student must receive an overall average of 4.5 or greater on the Student Assessment Form and a score of at least 4 on all individual competencies graded for that rotation.

To receive a grade of “P,” the student must receive an overall average of 3 or greater on the Student Assessment Form. The average is computed from the sum of all the individual competencies graded for that rotation. Not all rotations will generate a grade for every competency listed on the Student Assessment Form.

It is possible to receive a grade of “P” for the overall performance on a rotation, but not receive a satisfactory grade on one particular competency. Remediation is required for competency with an end-of-rotation score less than 3. Students who fail to successfully remediate a competency based on the original remediation plan will be referred to SOP
Academic Standards Committee which will determine if advancement is to be withheld and/or who will approve an additional remediation plan.

Students receiving a final average of less than 3 for the competencies graded or receiving a score of 1 or 2 on more than one competency on the Student Assessment Form will receive a grade of “F.”

Students may be removed from rotation prior to completion of 5 weeks at the request of the preceptor or rotation site. Removal from a rotation prior to the completion of the rotation will result in a grade of “F” if the removal is due to poor student performance in any of the competency domains as determined by the preceptor, student insubordination or behavior which is unacceptable to the preceptor, or if the student has violated rotation site policies or procedures. Rotation sites have sole discretion in determining if students have violated their policies or procedures.

For grades of “F”, progression through the rotation schedule is halted. The student is referred to the SOP Academic and Professional Standards Committee. At a minimum, the student will repeat the rotation category in the next academic year and when the designated rotation is available. All remedial rotations must occur during regularly scheduled rotation blocks. (e.g. Students may not complete rotations during rotation breaks in December and May.)

Incomplete grades are issued according to WVU guidelines as identified by the Office of the University Registrar.

Grades of “NR” are rarely issued and are issued only in circumstances in which the student could not complete the rotation but does not meet the guidelines for a grade of “I.”

Grades for experiential rotations are assigned by the preceptor in charge of the rotation UNLESS ANY OF THE INCIDENTS, as outlined below, occurs. In these situations, a failing grade for the associated competency will be assigned by the course coordinator, i.e. the APPE Director. This failing score for the competency will override any score that may initially have been submitted by the preceptor.

Note: a failing grade for the associated competency is the minimum penalty. Additional or stricter penalties may be imposed by the preceptor or APPE Director.

1. Cheating and plagiarism: Any use of resources other than your own recollection and reasoning ability on an exam, paper, or assignment is cheating. Plagiarism, a form of cheating, occurs when another person’s work is used without attribution or when it is copied without attribution. All incidents will be reported in writing to (1) Clinical
Department Chairman and (2) the Associate Dean for Student Services. WVU procedures regarding academic dishonesty will be enforced.

Note: This includes cutting/pasting information from Clinical Pharmacology and similar resources to prepare a drug monograph or respond to written drug information questions.

Minimum Consequence: A failing score for the written communication competency.

2. Breaking of practice site policies or procedures: Examples include, but are not limited to HIPAA violations, downloading computer software onto facility computers against facility policy, breaking confidentiality (e.g., sharing pricing information), improper use of electronic record systems.

Note: In the case of HIPAA violations, students will automatically be referred to the WVU SoP Academic and Professional Standards Committee and to the HSC HIPAA Review Team. Any penalties imposed by these entities will be in addition to preceptor and APPE director penalties.

Minimum Consequence: A failing score for the professionalism (responsibility and citizenship) competency.

3. Being absent without prior approval.

Minimum Consequence: A failing score for the professionalism (responsibility and citizenship) competency.

4. Failure to complete assigned projects.

Minimum Consequence: A failing score for the professionalism competency (responsibility and citizenship). If it was a formal verbal or written assignment, the associated competency will receive a failing grade as well.

5. Texting, gaming, and/or receiving cell phone calls while on rounds or participating in any other direct patient care activity.

Minimum Consequence: A failing score for the professionalism competency (responsibility and citizenship).

There are no exceptions to the grading policy.
Student obligations to reporting “Fail” performance to the Director of APPE:

The student is to notify the Director at the 2 week evaluation if the student is performing unsatisfactorily, i.e. has score < 3 on any competency graded on the 2 week evaluation. The student is to notify the Director immediately if a grade of “Fail” is received at the 5 week evaluation.

Grading Scale

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>High Pass</td>
<td>A score of 4 or 5 on all competencies graded and an average score of ≥ 4.5 on all competences graded</td>
</tr>
<tr>
<td>Pass</td>
<td>Average score of ≥ 3 on all competencies graded</td>
</tr>
<tr>
<td>Fail</td>
<td>Average score of &lt; 3 on all competencies graded or ≥ 2 individual competency scores &lt; 3</td>
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</tbody>
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Journal Club

Though not associated with a letter grade, participation in longitudinal journal club sessions is a required element of APPE. Any student failing to complete their assigned journal club at a satisfactory level or failing to attend journal clubs when available, as specified by the journal club coordinator will be referred to the Director of APPE and/or the Committee and Academic and Professional Standards. Remediation will be required for students failing to participate at the required level or in cases in which the quality of the journal club presentation is deemed unacceptable by the faculty member responsible for evaluating the journal club.

Attendance

Students must be mindful at all times that the primary objective of experiential rotations is learning by doing. Therefore, attendance is mandatory to fulfill the required number of hours for each APPE rotation.
Students are permitted to have five excused day-long absences that will not need to be made up unless otherwise required by the preceptor over the course of the entire 8 block APPE year. These excused absence days are to be used for illness, emergency situations, residency interviews, and job interviews. The excused absences are not vacation/personal days. **Students may not accumulate more than three excused absences during any one rotation unless approved by the Director of APPE.**

The student must report to the APPE Director any time more than two consecutive days of excused absence occur during a rotation. Failure to notify the Director may result in the student having to make up those days.

It is the responsibility of the student to contact the preceptor at least 2 weeks in advance of the first day of the rotation to ask for permission to miss days that they anticipate they will miss (e.g., previously scheduled medical/dental appointment, legal appointment, job/residency interviews, etc.). Preceptors reserve the right to decline requests that would significantly impair the student’s rotation activities or request that the time be made up either on site or through assigned projects.

Unexcused absences may result in a failing grade for the rotation. Students having greater than five excused absences during the experiential year will need to make up all days over the five-day limit. Students having greater than three excused absences during any one block will need to make up the days unless granted a waiver by the Director. If the Director approves excused absences of greater than three days, but the preceptor requests that the days be made up, the preceptor’s decision will be honored. The Director of APPE will monitor days absent.

Students will record all hours on site using the hours log on E*Value. Each student must account for 200 hours for each rotation. Hours can be logged as rotation hours, absence, holidays, school event, inclement weather, or preparation time. Only hours logged as rotation hours will count toward the minimum 1440 hours required for graduation. A maximum of 10 hours per rotation may be logged as preparation time.

Students are excused from the rotation site and are not required to make up the time if they notify the preceptor when they check in for the rotation of their participation in the following SoP programs: Career Fair, Career Day and reception, Residency Fair, P4 Day, and other special events designated by the SoP. Days absent to attend these School-sponsored events are not to be included in the five excused absence days.
Exceptional circumstances will be reviewed by the Director of APPE in consultation with the Experiential Learning Committee Chair and the Associate Dean for Student Services.

**Failure to Complete a Rotation for Non-Academic Reasons**

If a student must leave a rotation early or cannot begin a rotation for a non-academic reason (e.g. illness, injury, family emergency, or preceptor illness or injury), he or she will receive an incomplete (I) for the rotation. Make-up rotations will be assigned during the academic year that follows completion of the normal experiential course cycle and when appropriate rotations are available. Students must complete all APPE requirements over the span of 8 rotations, even if the rotations are not consecutive. APPE rotation rescheduling will be at the discretion of the APPE Director and will be based upon site and preceptor availability.

**Inclement Weather**

Since severe weather conditions may often be a local phenomenon, closure of WVU in Morgantown does not necessitate the day(s) off for students on rotations elsewhere. If a student’s site is closed, this is not counted as an absence.

If a student’s site is open, the student is expected to come to the site. However, students should use their own judgment in determining whether or not they are able to travel in adverse weather conditions. The student MUST call the preceptor if they are going to be late or are unable to attend. If the site is open, the student’s absence will be counted as one of the five excused absences. However, preceptors may request that the student make up the time.

If the student’s site is open AND the student’s preceptor instructs the student not to come in, this is not counted as an absence. However, the student is expected to complete any additional projects the preceptor may assign as a result of the absence.

If the site is closed (or the student is instructed not to come in) for > 3 days during a rotation; all days over the 3 days must be made up.

**Requests to Change Rotation Days/Hours**

Students are to be in attendance on the day/shift assigned by the preceptor. If a student wishes to be in attendance on a day/shift other than that scheduled by the preceptor (i.e., exchange a day/shift) the student must first obtain preceptor consent. Preceptors reserve the right to decline such requests. If the student day/shift exchange request
exceeds more than one day, the student must also obtain permission from the APPE Director. The exchanged days/shifts must be made up prior to the start of the next rotation block.

Other Items

**APPE Student Rotations Requirements Agreement**

Students are expected to comply with all aspects of the APPE Student Rotations Requirements Agreement, signed by each student at the beginning of IPPE 5. A copy of the agreement can be found on the experiential SOLE site.

**Rotation Site Change Requests**

Once student-preceptor assignments are announced, changes are made only in circumstances when the preceptor or site become unavailable or if there is a substantial problem that prevents the student from participating as scheduled. With preceptor-driven changes, OEL provides reassignment options, when possible, to the student for review and submission of preferences. OEL then works in order of the student’s preferences to confirm preceptor availability and approval. When a student wants to change a rotation, the student must submit in writing a Rotation Change Request form describing the substantial problem that prevents the student from participating as scheduled. The request is subject to review and approval or denial by the OEL. **All decisions are final**, and all parties are notified as appropriate.

**It is inappropriate for the student to contact a preceptor directly at an affiliated practice site to attempt to arrange or change a rotation. Due to the complexity of rotation placements, all rotation scheduling must go through OEL.**

**Housing**

The student must arrange his or her own housing for all rotations. Some free housing is available in various sites. Students are encouraged to utilize free living arrangements with family and friends for rotations throughout the APPE years or share rental housing with friends.

**Transportation**

The student must arrange transportation to and parking at rotation sites. Typically, students may need to travel up to 1 hour to rotation assignments within the student’s
assigned region; however, students may need to travel > 1 hour to rotation assignments if an acceptable rotation is not available closer to the student’s housing. Therefore, the student must be prepared to commute if necessary. The student must obtain information about parking from the preceptor prior to the start of the rotation. Transportation and parking expenses are the student’s responsibility.

Site Specific Requirements

The student must be attentive to any special requirements imposed by some sites on students before the start of the rotation. For example, a site may require a drug screen, finger printing, health insurance, two-step tuberculin skin test, or a special orientation prior to the beginning of the rotation. Specific site requirements, if provided by the site, are listed on SOLE. Students are expected to make inquiries about special site requirements when contacting the preceptor 2 weeks in advance of the rotation. The site may decline to accept the student if he or she has not fulfilled the site-specific requirements by the due date imposed by the site. Consequently, the rotation may need to be rescheduled for the next available rotation block, and if applicable, may result in a delay in graduation. Any expenses associated with the site’s special requirements are the student’s responsibility.

Remuneration

The student must not receive any remuneration from the practice site or preceptor to which he or she is assigned. Certain gratuities are acceptable, such as free or reduced-cost meals or housing at the site.

Academic Integrity: Instructors will enforce rigorous standards of academic integrity in all assignments and examinations of this course. Policies and procedures to be followed in cases of academic dishonesty are contained in the School of Pharmacy Policy on Academic and Professional Standards Governing the Doctor of Pharmacy Degree Program.

Inclusivity Statement: The West Virginia University community is committed to creating and fostering a positive learning and working environment based on open communication, mutual respect, and inclusion. If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangements with the Office of Accessibility Services (293-6700). For more information on West Virginia University’s Diversity, Equity, and Inclusion initiatives, please see http://diversity.wvu.edu.
**Days of Special Concern:** WVU recognizes the diversity of its students and the needs of those who wish to be absent from class to participate in Days of Special Concern, which are listed in the Schedule of Courses. Students should notify their instructors by the end of the second week of classes or prior to the first Day of Special Concern, whichever is earlier, regarding Day of Special Concern observances that will affect their attendance. Further, students must abide by the attendance policy of their instructors as stated on their syllabi. Faculty will make reasonable accommodation for tests or field trips that a student misses as a result of observing a Day of Special Concern.

All the information contained herein is subject to modification by the course coordinator.
Appendix A

Acute Care (Pharmacy 760/761)

Course Description

An acute care rotation is a clinical experience in a hospital (or health system) inpatient setting. The student will spend at least 50% of his or her time performing pharmacy care functions in patient care units with multidisciplinary interaction. Examples of acute care rotations include internal medicine, family medicine, or a specialty such as oncology or infectious disease.

Course Ability Based Outcomes

Upon completion of PHAR 760/761, the student will be able to:

1. Demonstrate the ability to practice as a member of an inter-professional team.

   A. Perform ongoing daily drug therapy monitoring for at least 5 patients daily.
   B. Obtain useful and informative patient medication histories on new patients.
   C. Interpret patient information to identify active problems, past medical history, pertinent physical examination findings, nutritional status, and laboratory and special procedures results.
   D. Explain the reason(s) for observing the vital signs and laboratory data as it relates to either the medications or the medical problem of a specific patient.
   E. Interpret drug serum concentrations, perform pharmacokinetic calculations, and pertinent laboratory values.

2. Make pharmacy care plan adjustments as needed.

   A. Detect drug-related problems.
   B. Resolve drug-related problems.

3. Conduct discharge medication counseling with assigned patients.

4. Devise recommendations for prescription and nonprescription medications, dietary supplements, diet, nutrition, traditional non-drug therapies, and complementary and alternative therapies as part of the pharmacy care plan as appropriate.
5. Identify and report medication errors and adverse drug reactions.
   A. Complete an adverse drug reaction report per health-system policy or review the process.

6. Assess patient information and monitor drug regimens to manage pharmacotherapy.

7. Identify, evaluate, and communicate the appropriateness of the patient’s specific pharmacotherapeutic agents, dosing regimens, dosage forms, routes of administration, and delivery systems with the patient.
   A. Demonstrate competency in ongoing patient counseling.
   B. Document medication counseling.

7. Identify, evaluate, and communicate the appropriateness of the patient’s specific pharmacotherapeutic agents, dosing regimens, dosage forms, routes of administration, and delivery systems with other health care professionals.

8. Demonstrate the ability to provide pharmacist-delivered patient care to a diverse patient population (e.g., pediatric, geriatric, cultural).

9. Evaluate and apply information to promote optimal health care.
   A. Demonstrate use of appropriate sources of drug information to enhance professional knowledge, decision-making, and pharmacotherapeutic outcomes.

10. Compose and provide education to health care professionals regarding medical conditions, wellness, dietary supplements, and medical and drug devices.
    A. Deliver at least one pharmacotherapy in-service to health care professionals.
    B. Prepare a written drug information response with references.
    C. Deliver a formal case presentation to pharmacy professionals.

11. Develop and execute plans that ensure continuity of pharmacy care among health care settings.

12. Evaluate and use clinical and scientific publications in the decision-making process.
A. Participate in at least one journal club.
B. Write a summary of a journal article.

13. Demonstrate the ability to use technology in pharmacy practice.
Appendix B

Ambulatory Care (Pharmacy 762/763)

Course Description

An ambulatory care rotation is an outpatient experience in which the student performs comprehensive patient counseling, takes patient histories, performs disease state management and education, and reviews medication regimens for problems and appropriateness. Written care plans or recommendations are communicated with treating providers, and interventions are documented in a permanent record. Examples include but are not limited to diabetes education, anticoagulation, asthma education, lipid management, and hypertension management.

Course Ability Based Outcomes

Upon completion of PHAR 762/763, the student will be able to:

1. Interview a patient and/or caregiver to obtain pertinent patient-specific information including a medical and medication history.

2. Obtain pertinent patient-specific information from other sources including patient medical records, patient labs, diagnostic tests, physical assessment findings, medication profiles/history, and other health care providers.

3. Perform physical examination techniques used to supervise medication therapy including taking blood pressures and assessing the heart rate.

4. Synthesize information obtained from the patient interview and available patient records to make assessments.

5. Define appropriate therapeutic goal(s) and determine whether desired outcomes have been achieved.

6. Design and implement a plan to triage patients for care by other health professionals.

7. Develop a pharmacy care plan including adjustments in drug, dose, regimen, patient education, lifestyle modification, and follow-up monitoring to resolve identified therapy problems and achieve desired outcomes.
8. Identify parameters to monitor for the desired therapeutic outcome and for detection and prevention of adverse events.

9. Identify and address potential barriers to the provision of pharmacy care (e.g., patient’s beliefs, biases, cognitive status, culture, economic status, and social situation).

10. Retrieve, evaluate, manage, and use clinical and scientific publications to develop pharmacy care plans and provide accurate and appropriate drug information to patients and other health professionals.

11. Communicate verbal and/or written formats a pharmacy care plan to other health care professionals.

12. Document a patient’s medical and medication history in the medical chart.

13. Communicate effectively with patients and/or caregivers about medication, wellness, and disease-related issues.

14. Demonstrate the ability to provide accurate and appropriate drug information to patients and other health professionals.

15. Discuss the pathophysiology and therapeutics of various diseases/conditions as well as the pharmacology of medications.

16. Discuss practice management issues pertaining to the site (e.g. formulary, collaborative practice agreements, provider reimbursements, access to medications, etc.).

17. Counsel patients regarding nonprescription medications, dietary supplements, diet, nutrition, traditional nondrug therapies, and alternative therapies as appropriate.

18. Identify and report medication errors and adverse drug reactions in accordance with site-specific procedures. If no medication errors or ADRs are identified during the rotation, students should discuss the site-specific process for reporting them.

19. Demonstrate the ability to use processes that help to ensure continuity of direct patient care across health care delivery settings.

Appendix C

Advanced Practice Community (Pharmacy 770)

Course Description

An advanced pharmacy practice community rotation provides the student advanced practice experience in the integrated delivery of pharmaceutical care services in a community or clinic pharmacy setting. Community pharmacy experiences may be in an independent pharmacy, a retail chain, mass merchant, or grocery store chain. The student will develop knowledge and skills in providing pharmacy patient care in the community. The overall intent of this advanced practice experience is for the student to develop, practice and gain confidence in clinical decision making skills for managing the pharmacotherapy of patients in the community setting. Approximately 60% of the rotation should be focused on direct patient care, 30% on distributive functions and 10% on patient care services.

Course Ability Based Outcomes

Upon completion of PHAR 770, the student will be able to:

1. Identify potential drug-related problems and determine whether these have occurred.
   
   A. Apply pathophysiology, pharmacology and therapeutics of medications and diseases when providing patient education and drug information.
   B. Communicate potential and/or actual drug-related problems, when appropriate.
   C. Perform and document patient interventions: at least 2 nonprescription, at least 5 new prescription, at least 5 refill prescription patient counseling per week.
   D. Design and write a pharmacy care plan including recommendations to practitioners.
   E. Maintain adequate records of drug therapy to facilitate the prevention, identification and management of drug related problems.
   F. Perform and document 5 immunization advocacy interventions (if applicable at site).

2. Provide accurate and appropriate drug information and consultation to pharmacists and other health care professionals.
A. Prepare new drug updates each week.
B. Prepare herbal medicine or dietary supplement updates each week.

3. Communicate both verbally and in writing about advanced community pharmacy practice.
   
   A. Discuss at least 1 current hot topic pertinent to community pharmacy practice (i.e., drug recalls, MTM, required dispensing of medications).
   B. Discuss one recent journal in a Journal Club format.

4. Perform physical assessment to evaluate drug therapy outcomes and identify objective findings appropriate for documenting drug effects and/or toxicity.
   
   A. Conduct disease screening, patient wellness and prevention programs (1 per rotation).
   B. Demonstrate competency and provide patient education in point of care testing (blood pressure, blood glucose, cholesterol, etc.).

5. Verify prescriptions for completeness, legality, dosage, route of administration, frequency and duration of therapy.

6. Perform appropriate calculations.

7. Communicate effectively with patient about drug therapy information.

8. Demonstrate patient safety procedures in filling and dispensing prescriptions.

9. Demonstrate the ability to provide pharmacist-delivered patient care to a diverse patient population.
   
   A. Prepare a newsletter or patient education handout.
   B. Complete a health observance related project.

10. Participate in one aspect of a patient care pharmacy service (i.e., development implementation, compensation, marketing or outcomes evaluation).
   
   A. Evaluate the development, implementation, and marketing of a patient care pharmacy service.
   B. Explain the marketing and management of patient care services in community pharmacy practice including design, patient interventions, documentation, and
the establishment of collaborative practice with physicians and patients including business plans and financial evaluations.

C. Evaluate the outcomes, including economic impact, of a pharmacy patient care service.
Appendix D

Advanced Practice Institutional (Pharmacy 772)

Course Description

The student will spend 5 weeks in a hospital pharmacy department. The student will experience pharmacy operations and services relating to systems for drug distribution and drug control, management of the department, scope of clinical services provided by the department, and department relationships within the institution and health system.

Course Ability Based Outcomes

Upon completion of PHAR 772, the student will be able to:

1. Evaluate at least 40 prescription orders for appropriate therapy, efficacy, safety, and compatibility with other medications, proper dose, dosage form, accuracy and completeness.

2. Analyze patient records for pertinent information before dispensing, and identify allergies, potential interactions with other drug therapy or disease states, and duplicate therapy.

3. Prepare at least 20 medication orders for the patient by evaluating the medication order and selecting the proper product.

4. Identify drug-related problems (minimum 25/rotation) and document in the EMS system.

5. Package and dispense multiple dosage forms including IV admixtures as assigned by the preceptor or designee.

6. Communicate therapeutic recommendations to other health care professionals.

7. Perform at least 30 pharmaceutical calculations related to the medication order, including pediatric orders.

8. Safely compound an extemporaneous preparation(s) including IV admixtures according to appropriate procedures for producing a satisfactory product.
9. Evaluate a patient for rational and appropriate use of nutritional support.

10. Educate patients on medication administration and safety.

11. Perform medication reconciliation on patients admitted to the hospital.

12. Discuss and demonstrate the preparation of updated medication lists for the patient.

13. Develop concise, applicable, comprehensive, and timely responses to requests for drug information from other health care providers in the hospital setting.

14. Deliver an oral presentation as it pertains to drug information inquiries.

15. Discuss handling, distribution, and control of narcotics and the regulations affecting narcotics.

16. Discuss assignments of human resources management, medication resources management, and pharmacy data management systems, including pharmacy workload and financial performance.

17. Participate in the health system’s formulary process.

18. Perform prospective and retrospective financial and clinical outcomes analyses to support formulary recommendations and therapeutic guideline development.

19. Conduct a drug use review.

   A. Review medication error data. (Follow an order from distribution to adverse drug report).

20. Describe the medication use process: medication management, procurement, ordering, dispensing, monitoring and administration.

21. Identify systems for storage, preparation, and dispensing of medications, the allocation and use of key resources, and supervision of pharmacy technical staff.

22. Discuss automation, technology, and information systems in the hospital.
23. Discuss and provide examples of the accreditation process and professional standards (e.g., Joint Commission, ASHP Residency requirements, Board of Pharmacy).

24. Compare and contrast pharmacy department vs. hospital institution policies.

25. Assess the multi-professional personnel who interact with pharmacy. (Engage all health care individuals that interact with an identified patient).

26. Discuss the relationship between medication distribution and clinical pharmacy services, and identify barriers between the two components.

27. Attend pharmacy-related meetings (e.g., P&T, Hospital Interdisciplinary Committee Meeting, Safety Committee, etc.).

28. Discuss emergency procedures in the management of medical emergencies and emergency preparedness at the site.

29. Discuss the management of investigational drug products.
Appendix E

Patient Care Elective (Pharmacy 764/765)

Course Description

This 5-week advanced practice experience will give students the opportunity to participate in a variety of pharmacy practice settings. The elective rotation experience will provide direct or supportive patient care exposure.

Course Ability Based Outcomes

Upon completion of PHAR 764/765, the student will be able to:

1. Discuss the importance of the elective area to the profession of pharmacy.

2. Discuss the disease states commonly associated with the area of specialty.

3. Discuss the clinical pharmacology, toxicology, and/or pharmacokinetics of drugs commonly used in the area of specialty.

4. Evaluate therapeutic regimens of patients seen in the specialty area.

5. Effectively communicate with patients (or their caregivers) and/or health care professionals verbally (in person or via telephone) and/or in writing.

6. Develop monitoring plans for patients in the specialty area.

7. Discuss the psychosocial and economic factors that influence the care of patients in the specialty area.

8. Identify therapeutic problems encountered by patients in the specialty area when appropriate and identify ways to correct these problems.

9. Discuss individual patients with the preceptor and other health care providers when appropriate.

10. Identify, evaluate, and analyze primary, secondary, and tertiary literature related to the specialty area.
Appendix F

General Elective (Pharmacy 766)

Course Description

This 5-week advanced practice experience will give students the opportunity to participate in a variety of pharmacy practice settings. The elective rotation experience will a variety of experiences, depending on the rotation site, not necessarily related to patient care for the general elective.

Course Ability Based Outcomes

Upon completion of PHAR 766, the student will be able to:

1. Discuss the importance of the elective area to the profession of pharmacy.

2. Discuss the psychosocial and economic factors that influence the provision of pharmaceutical care.

3. Identify and evaluate primary, secondary, and tertiary literature related to the specialty area.

4. Effectively communicate verbal information related to the specialty area to the preceptor, other healthcare providers, and/or the lay public.

5. Effectively communicate, in writing, information pertinent to the specialty area.

6. Identify, evaluate, and analyze primary, secondary, and tertiary literature related to the specialty area.
Appendix G

Rural Rotation Experiences

Course Ability Based Outcomes

Upon completion of the two required rural rotations, the student will be able to:

1. Identify health disparities specific to the applicable rural setting.

2. Identify strategies for overcoming barriers to the provision of health care in the rural setting.

3. Demonstrate cultural competence through interactions with other health care providers, support staff, and patients in the rural setting.