Experiential Learning Program (ELP)
2019-2020

Course Number & Title
Advanced Pharmacy Practice Experience (APPE) 401: Health-System Pharmacy Practice

Course Manager
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Credit Hours & Length of Rotation
5 credits; full-time five weeks (200 experiential hours)

Eligible Class Standing
P4

Prerequisites
Students must successfully complete the first three professional years (P1 through P3) and all Introductory Pharmacy Practice Experiences (IPPEs).

Catalog Description
The goal of this rotation is to provide students advanced experience in a health system pharmacy setting. Students will be expected to utilize abilities learned previously in the curriculum in order to oversee drug distribution systems, evaluate and monitor drug therapy, complete medication performance improvement, and educate health professionals. This will be accomplished through a variety of oral and written communication techniques.

Course Outcomes
Upon completion of this experiential course, the student pharmacist will be able to:

1. Given a health-system pharmacy setting, conduct practice activities that adhere to state and federal laws/regulations and site quality and safety procedures.
2. Given a health-system pharmacy setting, safely and efficiently manage the dispensing process.
3. Given a patient, provide pharmacist delivered patient care.
4. The student is able to effectively communicate with patients and health-care team members.

Revised 4/30/19
5. Demonstrate acceptable qualities and characteristics of professional behavior of altruism, honesty and integrity, respect for others, professional presence, and dedication and commitment to excellence.

Required and/or Recommended Texts/Readings
Preceptors may require and/or recommend additional readings for their rotations. Students are expected to communicate with the preceptor regarding such requirements prior to the rotation start date.

Required and/or Recommended Equipment
The School of Pharmacy name badge must be worn during all rotations. Additional equipment may include:
- Lab coat
- Stethoscope
- Watch with second hand
Preceptors may require and/or recommend additional equipment for their rotations. Students are expected to communicate with the preceptor regarding such requirements prior to the rotation start date.

ELP Policies
Students and preceptors are expected to comply with the ELP Policies and Procedures Manual, posted on the website: [http://www.pharmacy.umaryland.edu/preceptors/policies.html](http://www.pharmacy.umaryland.edu/preceptors/policies.html)

Preceptor and Site Criteria
The preceptor must have a clinical faculty appointment from the University of Maryland School of Pharmacy. The preceptor is assigned to specific course(s) based upon experiences, credentials, and roles/responsibilities at the site. The site or practice setting must offer sufficient opportunities for students to meet the course outcomes. The preceptor is encouraged to provide face-to-face feedback for the final evaluation and should assure that the course objectives, including the required hours of participation, were accomplished.

When available, preceptors should facilitate opportunities for students to compound the most commonly prescribed drug products in acute settings (e.g. IV admixtures, total parenteral nutrition) and/or chronic care settings (e.g. oral suspensions, topical preparations) to meet practice standards. In an interdisciplinary setting, students will use technology to effectively carry out professional functions which may include monitoring patient outcomes, answering patient-specific or provider questions, providing medications for patient use, and participating in quality assurance and performance improvement processes. Students will also participate in health policy decision-making for managing drug use. Compliance with legal, regulatory/legislative, and medication safety requirements, as well as accreditation quality standards to maintain professional competence, will be emphasized.

Student Activities and Assignments
Students will work with preceptors to complete activities and assignments which will enable them to accomplish the course objectives by the end of the rotation. Preceptors may utilize a learning contract and rotation calendar to organize the experience, to clearly communicate
expectations, and to account for student responsibilities such as ambulatory clinic, presentations, projects, and the required abilities checklist.

**Student Assessment and Grading**
The student will be assessed by the preceptor on performance and professionalism at the **midpoint** and **at the end of the rotation**. Midpoint evaluations are required to be completed electronically for each rotation to document student performance and allow for areas of focus and improvement during the latter half of the rotation. The midpoint evaluation will NOT be used in the calculation of the student’s grade. Within one week of completion of the rotation, the Preceptor Evaluation of Student must be submitted to the Experiential Learning Office. Failure to do so may result in an “Incomplete.” Evaluations should be completed online.

**Final Letter Grade**
The final grade will be assigned based on the ratings assigned for all evaluation items according to the following criteria. The professionalism/behavioral items do not contribute toward the letter grade. However, an “unacceptable” rating on any professionalism/behavioral item at the end of the rotation will result in automatic course failure.

The following rubric will be used to assign a letter grade for the rotation**:

<table>
<thead>
<tr>
<th>Absent</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning</td>
<td>7.6</td>
</tr>
<tr>
<td>Developing</td>
<td>12</td>
</tr>
<tr>
<td>Intermediate</td>
<td>13.6</td>
</tr>
<tr>
<td>Proficient</td>
<td>15.4</td>
</tr>
<tr>
<td>Highly Proficient</td>
<td>16.6</td>
</tr>
</tbody>
</table>

All performance outcome sections are weighted equally.

A **red box** indicates a professionalism failure or incomplete abilities checklist. Letter grades will be based on final scores as follows:

- **A** 90-100%
- **B** 80-89.999%
- **C** 70-79.999%
- **F** 0-69.999%

**Please note: if the abilities items are not completed as defined by the section below, the student will receive an “Incomplete” as their grade for the rotation, until the activity is completed.**

Students who wish to appeal a rotation grade must do so within one week of the date of the preceptor’s completed evaluation. Please refer to the Academic Affairs policy regarding grade appeals.
Remediation Policy
This course follows academic policies for remediation established by the School of Pharmacy. Please refer to this course’s Blackboard site course information page for School policies or the School’s website at: [http://www.pharmacy.umaryland.edu/preceptors/policies.html](http://www.pharmacy.umaryland.edu/preceptors/policies.html) (view “Remediation policy”)

Portfolio
Each student will maintain a portfolio throughout APPE, APPC, and APEX rotations. It should be professional in appearance and organized into sections to include patient encounter documentations (i.e. SOAP notes), drug information questions, presentation handouts, special projects, the updated abilities checklist, and evaluations. **Portfolio contents must be void of any patient identifiers such as date of birth, name, contact information, and prescription numbers.** It is a course manager’s responsibility to determine rotation grades. In addition to the preceptor’s evaluation, the course manager may review any student’s portfolio at any time for quality assurance. Any changes in the preceptor’s evaluation will be communicated in writing to the student and will be accompanied by a written explanation justifying the change. When requested, student portfolios MUST be submitted for review within 7 days following the request. Failure to do so will result in a one letter grade reduction.

Preceptor Assessment
The student will submit the Student Evaluation of Self/Preceptor/Site on-line no later than one week following the completion of the rotation. Each summer, preceptors will be provided summaries (no student names included) of their evaluations in order for them to improve rotations. If a preceptor has had only one student during the previous year, no summary will be sent.
Preceptor's Evaluation of Student
APPE 401: Health-System Pharmacy Practice

Evaluating/Rating Student Performance (Enter in RxPreceptor):

- Select appropriate rating (AB, BG, DV, IN, P, HP) in each column for each item and add comments as needed.
- Comments are strongly encouraged and must be included for any rating of “AB” for any item.
- The midpoint evaluation tracks student progress, provides formative feedback for students to improve performance, and guides activities for the remainder of rotation.
- If the student’s overall performance at midpoint is deficient (i.e. numerous “AB” and/or “BG” ratings), contact the course manager and/or ELP office.
- Grades will be assigned based on the final evaluation.

Performance Outcomes Criteria
The preceptor should evaluate the student at both the mid-point and at the conclusion of the rotation, using the following competency levels and descriptors. Each performance item on the assessment tool, with the exception of professionalism items will be rated using the competency levels of Absent, Beginning, Developing, Intermediate, Proficient, or Highly Proficient. The student may fit into more than one category; please select the competency level using the corresponding examples that best describe the student’s performance at the point of assessment.
<table>
<thead>
<tr>
<th>Awareness</th>
<th>Absent</th>
<th>Beginning</th>
<th>Developing</th>
<th>Intermediate</th>
<th>Proficient</th>
<th>Highly proficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not aware of how to approach the skill</td>
<td>Aware of the deficiency in the skill and attempts to determine effort required to become competent</td>
<td>Initiates practice of the skill</td>
<td>Familiarity with skill develops through practice</td>
<td>Consistently demonstrates accurate performance of the skill</td>
<td>Demonstrates skill to a less experienced learner</td>
<td></td>
</tr>
<tr>
<td>Ability</td>
<td>Lacks ability to independently complete the skill</td>
<td>Sporadically, but rarely able to perform the skill</td>
<td>Sometimes able to complete this skill</td>
<td>Ability to complete this skill is adequate, but not independent</td>
<td>Able to independently complete the skill</td>
<td></td>
</tr>
<tr>
<td>Supervision</td>
<td>Requires major supervision to complete the skill</td>
<td>Constant supervision and feedback are required to completed the skill</td>
<td>Supervision and feedback are required but need is decreasing</td>
<td>Supervision needed to master major concepts</td>
<td>Supervision is minimal</td>
<td></td>
</tr>
<tr>
<td>Mistakes</td>
<td>Major mistakes are many when student attempts to complete the skill</td>
<td>Major mistakes are common when student attempts to complete the skill</td>
<td>Major mistakes are limited</td>
<td>No major mistakes</td>
<td>Occasionally minor mistakes</td>
<td></td>
</tr>
<tr>
<td>Patient safety is at risk</td>
<td>Unable to self-correct</td>
<td>Minor mistakes occur</td>
<td>Minor mistakes occur</td>
<td>Able to self-correct</td>
<td>Rare minor mistakes</td>
<td></td>
</tr>
</tbody>
</table>

Revised 4/30/19
Following are the course outcomes and skills that the preceptor will assess on the midpoint and final evaluations:

**Outcomes for Health-System Pharmacy- APPE 401**

**Adopted from the ACPE 2016 Guidelines- Entry- Level Competencies Needed for Community Pharmacy Practice**

**Outcome 1:** Given a health-system pharmacy setting, conduct practice activities that adhere to state and federal laws/ regulations and site quality and safety procedures.

The students is able to:

- Apply national safety and quality standards, guidelines, and best practices, including the Joint Commission standards relevant to safe and appropriate medication use and the National Patient Safety Goals related to medication use
- Recognize and adhere to laws and regulations that impact pharmacy practice and affect the operation of a pharmacy, including the basic requirements of United States Pharmacopeia (USP) Chapters 797 and 800
- Describe established principles and processes related to safe medication use (e.g. storage of look- alike/ sound-alike medications, high alert medications, storage of concentrated electrolytes, dangerous abbreviations, leading decimal points and trailing zeros)
- Apply knowledge and understanding of all legal and ethical aspects of pharmacy practice required to evaluate a patient care decision

**Outcome 2:** Given a health-system pharmacy setting, safely and efficiently manage the dispensing process.

The student is able to:

- Describe the medications use process in health- systems, including the pharmacist’s role in safe storage, prescribing, dispensing, administration, and monitoring of medications
- Describe the drug procurement process, including drug selection, inventory management, backorders, recalls, drug waste, shortages and their impact on safe, effective patient care
- Outline the basic functionality of commonly used automated systems related to medication use, such as automated dispensing cabinets, computerized prescriber order entry, bar code medication administration systems, programmable infusion pumps, and robotics, understanding their appropriate and safe use as well as unintended consequences
- Perform activities within a typical health- system distribution system, including order receipt, evaluation, and review
- Describe processes and facilities to prepare and administer sterile compounded products and demonstrate aseptic technique, if the health-system permits.
- Describe appropriate use of injectable medications, including intravenous, intrathecal, intraventricular, intraocular, intradermal, and other routes, if applicable to the site. The description should include unique preparation
techniques, concentration considerations, rates of administration, special infusion devices, and compatibility considerations.

• Supervise technicians in their work
• Triage multiple patient care problems in times of high activity and workload
• Given a medication related problem, demonstrate effective problem solving skills

Outcome 3: Given a patient, provide pharmacist delivered patient care.
The student is able to:
• Effectively reconcile medications during transitions of care (PPCP- Collect)
• Apply pharmacokinetic dosing principles to determine the appropriate dose of commonly used drugs that require serum levels for dosing (PPCP- Plan)
• Demonstrate appropriate knowledge when making therapeutic recommendations or decisions related to medication therapy

Outcome 4: The student is able to effectively communicate with patients and health-care team members.
The student is able to:
• Demonstrate effective verbal and written communications to staff, patients, and healthcare team members
• Evaluate medication use patterns in a specific patient population or participate in a medication use evaluation and present findings in a written report
• Contribute to medication related policies, medication use criteria, or a formulary review using an evidence based approach based on available literature and present findings
• Given a drug information question, provide an accurate and credible answer verbally and in writing

Outcome 5: Demonstrate acceptable qualities and characteristics of professional behavior of altruism, honesty and integrity, respect for others, professional presence, and dedication and commitment to excellence.

Professionalism Criteria
By the end of the rotation, a student must earn “Acceptable” for all five professionalism criteria in order to pass the rotation. These criteria do not count toward the evaluation points for a grade. An “Unacceptable” rating on any professionalism metric at the final evaluation will result in a failure in the course.

• Altruism: Student makes an unselfish commitment to serve the best interests of the patient and rotation via prioritizing rotation requirements, demonstrating effective listening skills, interacting with others in a compassionate manner, and developing trusting relationships.
• Honesty and Integrity: Student displays honesty and integrity via abiding by patient (HIPAA) and student (FERPA) confidentiality requirements, and maintaining academic honesty.
• **Respect for Others:** Student treats others as he/she would want to be treated *via* arriving on time for rotation activities, respecting the feelings, needs, thoughts, and opinions of the preceptor/faculty/colleagues, demonstrating ability to receive constructive feedback, and providing constructive feedback in a respectful and educational manner.

• **Professional Presence:** Student instills trust *via* attending and participating in rotation requirements, dressing appropriately for the rotation, and accepting responsibility for one’s own actions.

• **Dedication and Commitment to Excellence:** Student strives for excellence and assume responsibility for his/her learning and professional development *via* adequately preparing for all rotation sessions, embracing responsibility for one’s own learning, and actively seeking guidance and mentoring as needed.