Experiential Learning Program (ELP)  
(2019-2020)

Course Number & Title  
Advanced Pharmacy Practice Experience (APPE) 451: Acute Care General Medicine

Course Manager  
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Experiential Learning Program Website: www.pharmacy.umaryland.edu – click on “Preceptors”

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 experience in a team-based acute care environment. Students will be expected to utilize skills learned previously in the curriculum in order to participate in the Pharmacists' Patient Care Process, which includes collecting and assessing patient-specific information; developing and implementing individualized patient-centered care plans; and monitoring and evaluating the effectiveness of care plans. Additionally, students will respond to drug information inquiries and function effectively as part of an interprofessional team. These tasks will be accomplished through a variety of oral and written communication techniques. 

The Pharmacists’ Patient Care Process (PPCP)
Course Outcomes
Upon completion of this experiential course, the student pharmacist will be able to:

1. Given a patient or caregiver, conduct an interview to collect subjective information required for professional functions at the practice site. (PPCP – Collect)

2. Given a patient or problem, collect from existing patient/medical records or a health care professional the patient-specific information necessary for the task being performed. (PPCP – Collect)

3. Given patient-specific information, identify and assess medical and drug-related problems. (PPCP – Assess)

4. Given a patient, identify disease prevention or detection needs. (PPCP – Assess)

5. Given a patient, design and implement evidence-based treatment (pharmacologic and non-pharmacologic) and monitoring plans. (PPCP – Plan)

6. Given a patient, document practice activities consistent with site-specific documentation practices or by a SOAP note if no documentation system is in place.

7. Given a case, demonstrate knowledge of the pathophysiology of disease states commonly encountered in the practice setting and of basic information about the drugs/drug classes used to treat those disease states.

8. Given a patient, provide discharge medication counseling on expected benefits, risks, administration techniques, and/or adherence strategies. (PPCP – Implement)

9. Given a patient case, prepare and deliver a formal case presentation to a preceptor, pharmacy staff, or other professionals within the pharmacy practice setting.

10. Effectively function as a member of the interprofessional health care team.

11. Given technologies available at the practice setting, effectively perform professional functions.

12. Demonstrate the characteristics of professional behavior, including 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 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 start date.

**ELP Policies**
Students and preceptors are expected to comply with the ELP Policies and Procedures Manual, posted on the website: [www.pharmacy.umaryland.edu](http://www.pharmacy.umaryland.edu) – click on “Preceptors”

**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.

For acute care general medicine rotations, students are required to routinely participate in rounds* and the preceptor should participate in rounds most days of the week. The area in which students will participate in rounds is limited to caring for adult patients in the following areas: family medicine, internal medicine, cardiology (not including cardiothoracic surgery), endocrinology, geriatrics (not geropsychiatry or dementia service), infectious diseases, internal medicine, nephrology and pulmonology. Students will access the patient's medical records, including laboratory data and medication administration records, in order to conduct patient medication history review and provide medication counseling prior to discharge.

*Rounding is considered by the University of Maryland School of Pharmacy to be a routine meeting of members of the interprofessional health care team for the purposes of reviewing patients’ medical needs and determining the goals and interventions for the patient. The rounding pharmacist is a regular member of that health care team rather than a consultant who is utilized on an as-needed basis. The rounding team minimally includes an attending physician and a pharmacist. Rounds may occur in any hospital setting (both community and academic) and can also take place either at the patient bedside or in a centralized location (e.g., a conference room). On a rounding service, the pharmacist actively participates in reviewing and discussing all patients on the service, not selected patients.

**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 requirements such as ambulatory clinic, presentations, patient encounter documentation, 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. 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 in RxPreceptor.

**Final Letter Grade**

The final grade will be assigned based on the ratings assigned for all evaluation items according to the following criteria. All sections are weighted equally. 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>3.5</td>
</tr>
<tr>
<td>Developing</td>
<td>5.5</td>
</tr>
<tr>
<td>Intermediate</td>
<td>6.3</td>
</tr>
<tr>
<td>Proficient</td>
<td>7.1</td>
</tr>
<tr>
<td>Highly Proficient</td>
<td>7.6</td>
</tr>
</tbody>
</table>

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.

Please refer to the Academic Affairs policy regarding grade challenges.

**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 451: Acute Care General Medicine

Evaluating/Rating Student Performance (Enter in RXPreceptor):
Select the appropriate rating (AB, BG, DV, IN, P, HP, which correspond to Absent, Beginning, Developing, Intermediate, Proficient, and Highly Proficient, respectively) in each column for each item and add comments as needed. Please see the table on the next page for descriptions of each rating.

• 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>Ability</th>
<th>Supervision</th>
<th>Mistakes</th>
<th>Patient safety is at risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absent</td>
<td>Not aware of how to approach the skill</td>
<td>Requires major supervision to complete the skill</td>
<td>Major mistakes are many when student attempts to complete the skill</td>
<td>Major mistakes are limited</td>
</tr>
<tr>
<td>Beginning</td>
<td>Aware of the deficiency in the skill and attempts to determine effort required to become competent</td>
<td>Sporadically, but rarely able to perform the skill</td>
<td>Major mistakes are common when student attempts to complete the skill</td>
<td>Minor mistakes occur</td>
</tr>
<tr>
<td>Developing</td>
<td>Initiates practice of the skill</td>
<td>Sometimes able to complete this skill</td>
<td>Unable to self-correct most errors</td>
<td>Able to self-correct</td>
</tr>
<tr>
<td>Intermediate</td>
<td>Familiarity with skill develops through practice</td>
<td>Ability to complete this skill is adequate, but not independent</td>
<td>No major mistakes</td>
<td>Occasional minor mistakes</td>
</tr>
<tr>
<td>Proficient</td>
<td>Consistently demonstrates accurate performance of the skill</td>
<td>Can identify and solve problems related to the skill</td>
<td>Supervision is minimal</td>
<td>Rarely needs intervention</td>
</tr>
<tr>
<td>Highly proficient</td>
<td>Demonstrates skill to a less experienced learner</td>
<td>Takes initiative to identify and solve problems related to the skill</td>
<td>Supervision is minimal</td>
<td>Functions independently</td>
</tr>
</tbody>
</table>

- **Awareness**
  - Absent: Not aware of how to approach the skill
  - Beginning: Aware of the deficiency in the skill and attempts to determine effort required to become competent
  - Developing: Initiates practice of the skill
  - Intermediate: Familiarity with skill develops through practice
  - Proficient: Consistently demonstrates accurate performance of the skill
  - Highly proficient: Demonstrates skill to a less experienced learner

- **Ability**
  - Absent: Not aware of how to approach the skill
  - Beginning: Aware of the deficiency in the skill and attempts to determine effort required to become competent
  - Developing: Initiates practice of the skill
  - Intermediate: Familiarity with skill develops through practice
  - Proficient: Consistently demonstrates accurate performance of the skill
  - Highly proficient: Demonstrates skill to a less experienced learner

- **Supervision**
  - Absent: Requires major supervision to complete the skill
  - Beginning: Sporadically, but rarely able to perform the skill
  - Developing: Sometimes able to complete this skill
  - Intermediate: Ability to complete this skill is adequate, but not independent
  - Proficient: Able to independently complete the skill
  - Highly proficient: Demonstrates excellent depth and breadth of understanding of key content and knowledge and applies consistently

- **Mistakes**
  - Absent: Major mistakes are many when student attempts to complete the skill
  - Beginning: Major mistakes are common when student attempts to complete the skill
  - Developing: Minor mistakes occur
  - Intermediate: No major mistakes
  - Proficient: Occasional minor mistakes
  - Highly proficient: Rare minor mistakes

- **Patient safety is at risk**
  - Absent: Major mistakes are many when student attempts to complete the skill
  - Beginning: Major mistakes are common when student attempts to complete the skill
  - Developing: Minor mistakes occur
  - Intermediate: No major mistakes
  - Proficient: Occasional minor mistakes
  - Highly proficient: Rare minor mistakes
Below are the course outcomes and skills that the preceptor will assess on the midpoint and final evaluations:

**Outcome 1: Given a patient or caregiver, conduct an interview to collect subjective information required for professional functions at the practice site.**

**Skill 1 – Subjective History**
Given a patient/caregiver, the student is able to:

- Conduct a review of systems as pertinent to the encounter.
- Collect a complete and accurate medication history (e.g. prescriptions, OTCs, herbals, dietary supplements).
- Elicit information regarding patient adherence to the medication regimen and/or treatment plan.

**Skill 2 – Interviewing Techniques**
During patient/caregiver interviews, the student is able to:

- Exhibit command of verbal expression (e.g. fluency, grammar, vocabulary, tone, volume, modulation of voice, rate of speech, and pronunciation).
- Effectively engage the patient/caregiver with non-verbal expression (e.g. eye contact, gesture, posture, use of silence/active listening).
- Appropriately respond to patient/caregiver's needs and feelings.
- Demonstrate an organized, but flexible, approach to the interview.
- Adapt to literacy and cultural needs.

**Outcome 2: Given a patient or problem, collect from existing patient/medical records or a health care professional the patient-specific information that is necessary for the task being performed.**

**Skill 1 – Subjective History Collection from Non-Patient Sources**
Given a patient or problem, the student is able to:

- Identify and collect pertinent subjective information from non-patient sources such as existing medical records, pharmacy records, and other health care providers (e.g. refill records, past medical history, past visit history).

**Skill 2 – Objective History Collection from Non-Patient Sources**
Given a patient or problem, the student is able to:

- Identify pertinent laboratory data or testing that is required to assess efficacy/toxicity of current drug therapy or to evaluate new complaints.
- Elicit laboratory and testing results from existing medical records, pharmacy records, or other providers.
- Accurately perform necessary calculations based on the data collected (e.g. CrCl, adjust phenytoin levels, risk calculations, etc.)
Outcome 3: Given patient-specific information, identify and assess medical and drug-related problems.

Skill 1 – Problem Identification
Given all relevant subjective and objective information, the student is able to:
- Clearly identify all diseases or medical conditions (i.e. problem list does not include merely a list of symptoms).
- Correctly identify presence of or risk for the following drug-related problems:
  - Indication – Untreated Indication; Drug Use without Indication
  - Effectiveness – Ineffective Treatment Regimen; Subtherapeutic Dose; Improper Drug Selection
  - Safety – Adverse Drug Event, Drug Interaction, Overdosage
  - Adherence – Failure to Take/Receive Drug

Skill 2 – Problem Assessment
Given a medical or drug-related problem, the student is able to:
- Identify therapeutic goals/endpoints.
- Assess problem etiology.
- Assess problem severity/stability.
- Appropriately prioritize problems.

Outcome 4: Given a patient, identify disease prevention or detection needs.

Given a patient the student is able to:
- Utilize patient-related variables (i.e. age, family/social history, etc.) to identify risk factors for diseases.
- Identify vaccinations that should be administered.
- Recommend drug and non-drug therapy to prevent disease and promote health (e.g. calcium and vitamin D for bone health, ASA for primary prevention).
- Recommend appropriate health screenings.

Outcome 5: Given a patient, design evidence-based treatment (pharmacologic and non-pharmacologic) and monitoring plans.

Skill 1 – Evidence-based Treatment Plans
Given a problem assessment, the student is able to:
- Recommend pharmacologic therapy for each of the problem(s) assessed that is likely to result in desirable health outcome(s).
- Recommend appropriate non-pharmacologic therapy for each of the problem(s) assessed.
- Base recommendations on published clinical practice guidelines, patient-related variable, and/or primary literature.

Skill 2 – Evidence-Based Monitoring Plans
Given a problem assessment, the student is able to:
Develop and implement (when possible) a monitoring plan for the treatment recommendation(s) that will evaluate therapeutic efficacy.

Develop and implement (when possible) a monitoring plan for the treatment recommendation(s) that will evaluate drug toxicity.

Base monitoring plan on severity of condition, published clinical practice guidelines, primary literature, and/or package inserts.

Record patient-specific monitoring data in an organized manner using appropriate medical terminology.

Outcome 6: Given a patient, document practice activities consistent with site-specific documentation practices or by a SOAP note if no documentation system is in place.

Given a patient’s final assessment and plan, the student is able to:

- Record patient encounters in a manner that conforms to the practice site’s standards.
- Provide complete, accurate, organized, and concise written communication regarding the patient encounter.
- Use appropriate terminology and abbreviations (e.g. avoid “do not use” abbreviations, use lay-terms for patient’s Personal Medication Record [PMR]).

Outcome 7: Given a case, demonstrate knowledge of the pathophysiology of disease states commonly encountered in the practice setting and of basic information about the drugs/drug classes used to treat those disease states.

The student is able to:

- Recall knowledge about drug name, mechanism of action, usual dosing, common side effects, and major drug interactions for drugs commonly and routinely encountered on the rotation.
- Discuss disease pathophysiology and explain how subjective and objective findings correlate to pathophysiology for diseases commonly and routinely encountered on the rotation.

Outcome 8: Given a patient, provide discharge medication counseling on expected benefits, risks, administration techniques, and/or adherence strategies.

Given a patient, the student is able to:

- Counsel the patient and/or caregiver on his/her treatment plan (drug and non-drug), including therapy benefits/risks.
- Respond appropriately to questions posed by the patient and/or caregiver.
- Use appropriate terminology for the patient/caregiver.
- Incorporate patients’ cultural beliefs and practices into patient care activities while maintaining patient safety.
- Manage the medication-related healthcare needs of patients during transitions of care.
Outcome 9: Given a patient case, prepare and deliver a formal case presentation to a preceptor, pharmacy staff, or other professionals within the pharmacy practice setting.

The student is able to:

- Present CC, HPI, PMH, FH/SH, ROS, Physical exam, and laboratory data is sufficient detail to assess patient and develop a therapeutic plan
- States specific drug therapy recommendations that is likely to have a positive effect on patient’s health and well-being for identified problems
- Lists specific and measurable parameters (subjective and objective) that enable the practitioner to assess for efficacy and toxicity of the recommendation
- States patient and agent related variables (comparative efficacy, safety, cost, and convenience) present in the case that impact choice of the drugs and/or drug classes being considered for at least the problem presented
- Includes a frequency of monitoring for each parameter that is consistent with product labeling, standards of care, and/or the severity of the problem
- Support conclusions and/or recommendations with evidence based information when applicable.
- If required for the presentation, supply a handout that supports the presentation.
- Correctly provide citations/references for all materials.

Outcome 10: Effectively function as a member of the interprofessional health care team.

During professional activities in which the student interacts with members of the health care team, the student is able to:

- Engage effectively and demonstrate respect during profession interactions (e.g. provide full attention, listen, speak without interrupting,).
- Use interpersonal communication skills to facilitate team interactions.
- Verbally presenting only the information relevant to the problem(s) at hand.
- Offering his/her own assessment of the problem(s) without prompting.
- Offering his/her own plan for the problem(s) without prompting.
- Actively participate in team activities.
- Assist team members in establishing therapeutic and/or diagnostic objectives.
- Use documentation, persuasion, and alternative suggestions to resolve therapeutic disagreements.
- Follow up on questions asked by the team in a timely fashion.
- Conduct interactions with the team with an appropriate level of confidence.

Outcome 11: Given technologies available at the practice setting, effectively perform professional functions.

- Following appropriate procedures, including documentation.
- Utilizing the capabilities of the technology and/or available data to identify and solve problems.
Outcome 12: Demonstrate the characteristics of professional behavior, including 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.