University of Maryland
School of Pharmacy

Experiential Learning Program (ELP)
Course Syllabus
Fall 2022 – Spring 2023

Course Number & Title
IPPE 307 Quality and Safety in Health-System Pharmacy Practice

Course Manager
Mark Brueckl, RPh, MBA
Assistant Director ELP
20 N. Pine Street, 730D
Baltimore, MD 21201
Office: (410) 706-8347
Fax: (410) 706-0988
Email: mbrueckl@rx.umaryland.edu

Course Manager Response Time
Response to phone calls and emails will be within two business days, unless out of office.

Experiential Learning Office Contact Information
Experiential Learning Office e-mail: elp@rx.umaryland.edu
Experiential Learning Office phone: (410) 706-2432
Experiential Learning Fax Number: (410) 706-0988
Experiential Learning Program Website

Credit Hours & Length of Rotation
Three (3) credits (experience is three (3) weeks, 120 experiential hours)

Eligible Class Standing
P3, P2 with course manager or ELP Assistant Dean approval

Prerequisites
Successful completion of IPPE 100 Introduction to Pharmacy or by approval of the IPPE 307 course manager.

Prior Learning Skills
The student must have successfully completed the second year of the Doctor of Pharmacy curriculum of the University of Maryland School of Pharmacy.

Catalog Description

This Introductory Pharmacy Practice Experience (IPPE) course will provide student pharmacists with opportunities to assess quality pharmacy operations and safe medication use practices in health-system environments. Students will participate in pharmacy practice activities and will apply the knowledge and skills from Abilities Labs 1-4 and previous IPPEs to meet the course objectives, which promote patient safety.

Required Readings
- Readings as assigned by the course manager(s) or ELP office.
- Additional readings as required by preceptors.

Useful Resources
- [Agency for Healthcare Research and Quality](#)
- [Institute for Safe Medication Practices](#)
- Institute of Medicine. Preventing Medication Errors. [Report Brief. July 2006](#)
- U.S. Pharmacopeia Convention. [Medication Safety & Labeling](#)
- [Healthy People 2020](#)
- [National Guideline Clearinghouse](#)

Required Attire
- Clean, pressed laboratory coat
- The School of Pharmacy name badge must be worn during all rotations.
- Students are expected to comply with the dress code policies outlined in the Experiential Learning Program Policies and Procedures Manual and the Student Honor Code.

Course Objectives
Upon completion of this experiential course, the student pharmacist will be able to:
1. **Medication Dispensing-** Demonstrate a commitment to and a valuing of patient safety by assuring accurate preparation, labeling, dispensing and distribution of prescriptions and medication orders. Demonstrate proficient use of technology in the management of patients and the medication distribution process.

2. **Drug Knowledge-** Demonstrate knowledge of commonly used medications, formulations, and drug products.

3. **Drug and Disease State Knowledge-** Utilize pharmaceutical and pharmacokinetics mathematics to perform accurate medication calculations. Value the importance of total accuracy in performing and applying these calculations.

4. **Drug Information-** Assess information needs of patients and health providers and apply knowledge of study design and literature analysis and retrieval to provide accurate, evidence-based drug information.

5. **Communication and Collaboration as a Team Member-** Demonstrate participation as an interprofessional team member by collaborating and communicating verbally with the healthcare team, appropriately demonstrating a willingness to form an opinion, expressing observations and/or asking questions, demonstrating assertiveness and confidence when making recommendations, and responding to questions in a clear and concise manner.

6. **Professionalism-** Demonstrate acceptable qualities and characteristics of professional behavior.

Terminal Performance Outcomes

TPO 10	Utilize drug formularies to optimize drug therapy recommendations and improve access to medications
TPO 12	Use technologies effectively to carry out professional functions including dispensing medications and maintaining patient records
TPO 13	Ensure the security, integrity, and proper storage of medication
TPO 14	Ensure that medications are labeled appropriately
TPO 15	Employ professional practice standards to compound the most commonly prescribed drug products in acute (e.g., IV admixtures, total parenteral nutrition) and chronic care (e.g., oral suspensions, topical preparations) settings
TPO 23	Understand the process for developing drug formularies at an organization/health-system- Which outcome?
TPO 31	Prepare and deliver educational programs to health professionals regarding drug therapy
TPO 33	Actively participate as an interprofessional healthcare team member by demonstrating mutual respect, understanding, and values to meet patient care needs
TPO 37	Communicate information to physicians, other prescribers, patients, and caregivers in a timely and effective manner
TPO 43	Carry out responsibilities in accordance with legal, ethical, social, economic, and professional norms

Activities and Assignments
- The student pharmacist will be assigned to an approved preceptor, who will provide an orientation to the site and will organize, facilitate, and assess the student's activities.
- Medication error reporting and drug information requests may be required when applicable.
- Preceptors may assign additional activities in support of the course outcomes.
- Through observation, demonstration (skills), discussion, role-playing (behaviors), reflection, question and answer session(s), and self-directed learning, the student will be expected to have completed all course outcomes.

Student Assessment and Grading
A weekly review of the evaluation form is encouraged to assure successful course completion.

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 in CORE ELMS 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 final grade. Within one week of completion of the rotation, the Preceptor Evaluation of Student must be submitted to the Experiential Learning Office via CORE ELMS. Failure to do so may result in an "Incomplete" grade.

Grading for the rotation will be Pass/Fail. Students must attain an average score of 2.50 or higher to obtain a passing grade for the rotation.

Evaluations will be completed online in CORE ELMS. The professionalism/behavioral items do not contribute toward the Pass/Fail grade. However, an "Unacceptable" rating on the professionalism/ behavioral metric at the end of the rotation will result in automatic course failure.

Remediation Policy
This course follows academic policies for remediation established by the School of Pharmacy. Please refer to the School's website (view "Remediation policy").

Preceptor Criteria
The preceptor must have a clinical faculty appointment from the University of Maryland School of Pharmacy and practice in community or health-system setting which offers sufficient opportunities for students to meet the course outcomes. The preceptor will assure effective student learning based on the following Gagne's Nine Events of Instruction:

- Gain attention- orient student to site, personnel, policies/procedures, expectations, schedule, facility tour.
- Inform learner of objectives- review course syllabus.
- Stimulate recall of prior learning- questions.
- Present learning stimulus- assignments, demonstrations, role-playing.
- Provide learner guidance.
- Elicit performance- outcomes-based.
- Provide feedback- constructive, frequent.

- Assess performance- mid-point, final.
- Enhance retention and transfer- summation, wrap-up.

The preceptor is responsible for the guidance, supervision, and assessment of the student in the day-to-day conduct of the course. The preceptor may assign students to other site personnel, if applicable for the objectives, as long as those individuals provide input for the student's assessment. The preceptor is encouraged to develop a learning contract (see example provided in ELP policy and procedures) to include site-specific requirements, such as expectations, the rotation schedule, policies, and assignments; and he or she may require additional projects and/or exercises to ensure the student's successful completion of the course objectives. The preceptor should provide face-to-face feedback for the final evaluation and assure that the course objectives, including the required hours of participation, were accomplished.

Preceptor Assessment

The student will submit the Student Evaluation of Self/Preceptor/Site in CORE ELMS no later than seven days following the completion of the rotation. It is imperative that students provide constructive, professional feedback. Preceptors will be provided access to anonymized summaries (no student names included) of their evaluations through CORE ELMS in order for them to improve rotations. If a preceptor has had only one student during the previous year, access to the summary report will not be granted. This evaluation is a professional expectation of the course.

Policies

Students and preceptors are expected to comply with the ELP Policies and Procedures Manual, available in the Document Library in CORE ELMS.

IPPE 307: Quality and Safety in Health-System Practice

Preceptor's Evaluation of Student
IPPE 307 Quality and Safety in Health-System Practice

Evaluating/Rating Student Performance (Enter in CORE ELMS):

- Preceptors are encouraged to provide at least weekly formative feedback for students to improve performance, and to guide activities for the remainder of rotation.
- Select appropriate rating (Level 1, 2, 3 or 4) in each column for each item and add comments as needed.
- Comments are strongly encouraged and must be included for any rating of "Level 1" for any item.
- The grade of Pass or Fail will be assigned based on the final evaluation of the student's performance and requirements.

Performance Outcomes Criteria

The preceptor should evaluate the student at both the mid-point and at the conclusion of the rotation, using the competency levels and descriptors listed below. Each performance item on the assessment tool, with the exception of professionalism items will be rated using the competency levels 1 through 4. The student may fit into more than one level; please select the competency level using the corresponding examples that best describe the student's performance at the point of assessment.

Level 1	Level 2	Level 3	Level 4
Unsatisfactory Performance with Low Trust:	*Needs Improvement with Moderate Trust:*	*Progressing Satisfactorily with High Trust:*	*Achieved (Independent) with Complete Trust:*
Student does not meet outcomes when completing basic or routine tasks, AND student requires complete guidance or was unprepared; preceptor had to do most of the tasks. "Preceptor did it."	Student meets outcomes when completing basic or routine tasks, AND student performs some tasks but requires repeated directions. "Preceptor talked student through it."	Student meets outcomes when completing basic and complex tasks, AND student demonstrates some independence, only requiring intermittent prompting. "Preceptor directed student from time to time."	Student meets outcomes when completing basic and complex tasks, AND student functions independently with distant supervision, only needing assistance with nuances or complex situations. "Preceptor was available just in case."

Following are the course outcomes and skills that the preceptor will assess on the midpoint and final evaluations:

Medication Dispensing: Demonstrate a commitment to and a valuing of patient safety by assuring accurate preparation, labeling, dispensing and distribution of prescriptions and medication orders.

Given a set of basic written or verbal prescription/medication orders, the student is able to:
- Follow preceptor guidance for site-specific processes.
- Review and interpret basic prescriptions/medication orders for patients.
- Prepare, label, and verify prescriptions/medication orders for patients under preceptor supervision.

Given practice activities, the student is able to:
- Articulate the decision points (e.g., safety, legitimacy of order, drug strength, prior authorization, non-formulary prescription order, ethical dilemma) observed during prescription/medication order processing at least once daily during the rotation.
- Reflect on alternatives (if applicable).
- Discuss appropriate actions relative to the decision.

Given a patient, the student is able to:
- Systematically review patient medications.
- Reconcile discrepancies.
- Correctly document findings for PMR or medication reconciliation.

Given practice activities, the student is able to:
- Describe quality and safety concerns (e.g., dangerous abbreviations, high alert medications, etc.) relative to the practice site using ISMP recommendations.
- Identify appropriate resources to address concerns.
- Discuss potential actions to prevent medication errors and promote quality processes.

Given a medication record system, the student is able to:
- Demonstrate proficient use of the system.
- Identify basic flags for medication errors or problems.
- Take steps to resolve potential errors or problems.

Drug Knowledge: Demonstrate knowledge of commonly used medications, formulations, self-care regimens and drug products.

The student is able to:
- Summarize key information related to the use of common (Top 200) medications.
- Identify brand and generic names, dosage forms and usual dosing ranges for common (Top 200) medications.
- When appropriate recommend self-care regimens that optimize the benefit to risk ratio of the selected product

Drug and Disease State Knowledge: Utilize pharmaceutical and pharmacokinetics mathematics to perform accurate medication calculations. Value the importance of total accuracy in performing and applying these calculations.

Given a problem, the student is able to:
- Accurately calculate the appropriate quantity of medication/ingredient/additive for at least 5 prescription orders.
- Document calculation for preceptor verification.

Drug Information: Assess information needs of patients and health providers and apply knowledge of study design and literature analysis and retrieval to provide accurate, evidence-based drug information

Given a question and resources, the student is able to:
- Re-state the basic drug information query.
- Collect pertinent background information with preceptor input.
- Respond to the query in a timely manner as directed by the preceptor using available resources.

Communication and Collaboration as a Team Member:

The student:
- Collaborates and communicates verbally with the healthcare team.
- Appropriately demonstrates a willingness to form an opinion.
- Expresses observations and/or asks questions.
- Demonstrates assertiveness and confidence when making recommendations.
- Responds to questions in a clear and concise manner.

Professionalism Criteria

By the end of the rotation, a student must earn "Acceptable" for the professionalism criteria in order to pass the rotation. These criteria do not count toward the Pass/Fail rotation grade. **However, an "Unacceptable" rating on the professionalism metric at the final evaluation will result in a failure in the course.**

The student:

1. Participates in the process of self-assessment and displays an interest in lifelong learning and continuous professional development.
2. Maintains a professional manner in both appearance and behavior at all times.
3. Demonstrates courtesy, respect, cultural sensitivity and tolerance towards others and exhibits self-control in all interactions.
4. Maintains confidentiality.
5. Arrives on time and prepared for all rotation activities, remains engaged in patient care, and completes all duties until permission to leave.
6. Demonstrates appropriate time-management skills and the ability to prioritize.
7. Demonstrates initiative and responsibility for providing patient care.
8. Demonstrates an ability to receive, process, and respond appropriately to constructive feedback.
9. Demonstrates active listening and empathy.