P3
Health System/Hospital
Introductory Pharmacy Practice Experience
2018-2019

Paul C. Walker, PharmD, FASHP, FMPA
Course Director
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Course
Introductory Pharmacy Practice Experience (IPPE): Health System/Hospital Practice
104 hours on-site

Course Director
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Course Description
The goal of this introductory practice experience is to give students hands-on experience in the drug preparation and distribution process in the health system/hospital setting and introduce students to patient care activities (taking medication histories, medication reconciliation, solving medication problems in consultation with other health care practitioners, etc.).
# P3 Introductory Pharmacy Practice Experience (IPPE) Calendar 2018-2019

## FALL TERM 2018:

<table>
<thead>
<tr>
<th>Pre-Semester (Aug 27 - 31)</th>
<th>Mandatory Orientation and CPR Re-Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 4</td>
<td>First day of P3 IPPEs; students report on assigned day for 13 weeks:</td>
</tr>
<tr>
<td></td>
<td><strong>DAY OF WEEK</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Monday</strong></td>
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<td></td>
<td><strong>Tuesday</strong></td>
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<td></td>
<td><strong>Wednesday</strong></td>
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<tr>
<td></td>
<td><strong>Thursday</strong></td>
</tr>
<tr>
<td>October 2*</td>
<td>Pharmacy Day at the Capitol (9:30 am - 2:00 pm)</td>
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<tr>
<td></td>
<td>* Students are allowed to attend with Preceptor approval and missed rotation time needs to be made up.</td>
</tr>
<tr>
<td>October 3</td>
<td>White Coat Ceremony</td>
</tr>
<tr>
<td></td>
<td>(mandatory student attendance – no students at sites)</td>
</tr>
<tr>
<td>October 15 – 16</td>
<td>Fall Study Break for Monday and Tuesday ONLY, students attend rotations on Wednesday and Thursday.</td>
</tr>
<tr>
<td>October 22 – 25</td>
<td>Midpoint Evaluation (due in RXpreceptor by October 26, 2018)</td>
</tr>
<tr>
<td>November 22 – 23</td>
<td>Thanksgiving Break (no students on Thursday ONLY)</td>
</tr>
<tr>
<td>December 4 – 10</td>
<td>Final evaluation (due in RXpreceptor by December 10, 2018)</td>
</tr>
<tr>
<td>December 10</td>
<td>Last day of Fall Term P3 IPPEs</td>
</tr>
</tbody>
</table>

## WINTER TERM 2019:

<table>
<thead>
<tr>
<th>Pre-Semester</th>
<th>P3 Orientation Attendance in August 2018 or Video Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 9</td>
<td>First day of P3 IPPEs; students report on assigned day for 13 weeks:</td>
</tr>
<tr>
<td></td>
<td><strong>DAY OF WEEK</strong></td>
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<tr>
<td></td>
<td><strong>Monday</strong></td>
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<td></td>
<td><strong>Tuesday</strong></td>
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<tr>
<td></td>
<td><strong>Wednesday</strong></td>
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<tr>
<td></td>
<td><strong>Thursday</strong></td>
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<tr>
<td>Early to mid-January TBD</td>
<td>PCOA Exam Week (no students on rotation all week)</td>
</tr>
<tr>
<td>January 21*</td>
<td>Martin Luther King Jr. Day</td>
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<tr>
<td></td>
<td>* Students are allowed to attend events with Preceptor approval and missed rotation time needs to be made up.</td>
</tr>
<tr>
<td>February 25 – 28</td>
<td>Midpoint evaluation (due in RXpreceptor by March 1, 2019)</td>
</tr>
<tr>
<td>March 2 – March 10</td>
<td>Spring Break (no students on rotation all week)</td>
</tr>
<tr>
<td>April 17 – 23</td>
<td>Final evaluation (due in RXpreceptor by April 23, 2019)</td>
</tr>
<tr>
<td>April 23</td>
<td>Last day of Winter Term P3 IPPEs</td>
</tr>
</tbody>
</table>
Ability-Based Outcomes Specifically Applicable to the HS/H-IPPE:

Curriculum mapping is a method used by the College of Pharmacy to align instruction with desired goals and educational outcomes. The College of Pharmacy has established overall ability-based outcomes (ABO) for the curriculum. These ABOs are mapped to courses to identify where each ABO is addressed and how each ABO is threaded through the curriculum. This facilitates curricular assessment. The following ABOS are applicable to this experience.

<table>
<thead>
<tr>
<th>ABO</th>
<th>COP</th>
<th>Domain: FOUNDATIONAL KNOWLEDGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1.5</td>
<td>1</td>
<td>Describe the components of the US healthcare system and the ways in which pharmacists can optimize medication use</td>
</tr>
<tr>
<td>1.1.6</td>
<td>1</td>
<td>Retrieve, analyze, and interpret scientific literature to provide drug information to patients, caregivers, and other healthcare providers</td>
</tr>
<tr>
<td>1.1.8</td>
<td>1</td>
<td>Apply the tenets of professionalism and ethical behavior</td>
</tr>
</tbody>
</table>

**CAPE Domain: ESSENTIALS FOR PRACTICE AND CARE**

**Domain 2.2:** Manage patient health care needs using human, financial, technological, and physical resources to optimize the safety and efficacy of medication use systems (manager)

- Assure the accuracy and completeness of medication orders
- Provide accurate medication distribution (including dispensing of individual prescriptions), ensuring integrity of drug products
- Ensure safe compounding of extemporaneous and parenteral products
- Comply with all legal, ethical, and professional standards
- Integrate technology, automation, and processes to improve medication use for the purposes of improving health outcomes for patients
- Promote efficient and cost-effective resource utilization
- Apply standards, guidelines, best practices, established processes and quality improvement strategies to optimize outcomes.
- Utilize medication-use criteria, medication use review and risk reduction strategies to minimize medication misadventures

<table>
<thead>
<tr>
<th>ABO</th>
<th>COP</th>
<th>Domain: APPROACH TO PRACTICE AND CARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2.1.1</td>
<td>2</td>
<td>Assure the accuracy and completeness of medication orders</td>
</tr>
<tr>
<td>2.2.1.2</td>
<td>2</td>
<td>Provide accurate medication distribution (including dispensing of individual prescriptions), ensuring integrity of drug products</td>
</tr>
<tr>
<td>2.2.1.3</td>
<td>2</td>
<td>Ensure safe compounding of extemporaneous and parenteral products</td>
</tr>
<tr>
<td>2.2.1.4</td>
<td>2</td>
<td>Comply with all legal, ethical, and professional standards</td>
</tr>
<tr>
<td>2.2.2.1</td>
<td>2</td>
<td>Integrate technology, automation, and processes to improve medication use for the purposes of improving health outcomes for patients</td>
</tr>
<tr>
<td>2.2.3.1</td>
<td>2</td>
<td>Promote efficient and cost-effective resource utilization</td>
</tr>
<tr>
<td>2.2.3.2</td>
<td>2</td>
<td>Apply standards, guidelines, best practices, established processes and quality improvement strategies to optimize outcomes</td>
</tr>
<tr>
<td>2.2.3.3</td>
<td>2</td>
<td>Utilize medication-use criteria, medication use review and risk reduction strategies to minimize medication misadventures</td>
</tr>
</tbody>
</table>

**Domain 3.1:** Identify problems in practice or care; explore and prioritize potential strategies; and design, implement, and evaluate a viable solution (problem solver)

- Identify problems related to practice or care, and systematically gather, analyze, and synthesize information using available methods and research tools to explore possible solutions
- Organize, prioritize, and defend possible solutions and choose an appropriate course of action for a practice or care problem.

**Domain 3.4:** Actively participate and engage as a healthcare team member by demonstrating mutual respect, understanding, and values to meet patient care needs (collaborator)

- Communicate and collaborate effectively with patients/caregivers and other healthcare professionals to engender a team approach (interprofessional education)
- Use active listening, gather input/feedback, value diverse opinions, and foster collaboration to help build consensus and enhance team functioning.
- Demonstrate professional skills, attitudes, and values and a sense of personal responsibility to patients, patient’s agents, and other health care providers.

**CAPE Domain: DEMONSTRATE PERSONAL AND PROFESSIONAL DEVELOPMENT**

**Domain 4.1:** Examine and reflect on personal knowledge, skills, abilities, beliefs, biases, motivation, and emotions that could enhance or limit personal and professional growth (self-aware)

- Identify and reflect on personal knowledge, skills, abilities, beliefs, biases, motivations, and emotions
- Approach tasks with a desire to learn and demonstrate a willingness to recognize, correct, and learn from errors
- Create, implement, evaluate, and modify plans for personal and professional development for the purpose of individual growth

**Domain 4.4:** Exhibit behaviors and values that are consistent with the trust given to the profession by patients, other healthcare providers, and society (professionalism)
• Adopt personal and professional ethical principles that place the health and safety of patients above personal gain.
• Display preparation, initiative, and accountability consistent with a commitment to excellence.

Rotation Activity Checklist
The IPPE Health System/Hospital Rotation Activity Checklist is available online in RXpreceptor (located under “Evaluations/Self-Evaluations”). It serves as a guide for everything that must be completed before the end of the rotation. The individual activities are outlined in the Activity Schedule and appendices of the Health System/Hospital IPPE syllabus. These activities are intended to ensure that students achieve the ability-based outcomes for this practice experience. The checklist MUST be completed and submitted online at the end of this experience before a grade will be assigned. Some documents may need to be uploaded to RXpreceptor (Field Encounters) to fulfill requirements. Students and preceptors will attest to the completion of these activities in their respective evaluations.

Interprofessional Education (IPE):
In this early practice experience, students work with other healthcare providers and/or their students to reinforce IPE competencies in the hospital/health system practice setting. The focus is on roles/responsibilities, teams/teamwork, and values/ethics.
### Activity Schedule

This schedule serves to guide student learning and development and is to be used as a suggested timeline.

#### Week 1  Orientation to Site and Introduction to Preparation and Distribution

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Activities</th>
</tr>
</thead>
</table>
| Assimilate the roles of the pharmacist and pharmacy technician and the roles of an interprofessional team. | o Orientation to pharmacy and personnel  
  ▪ Discuss training and roles of support personnel and how the pharmacy operates as a team  
  ▪ Review layout of hospital and tour the facilities  
  ▪ Discuss population base served by the pharmacy  
  ▪ Review HIPAA  
  ▪ Review dress code  
  ▪ Review site approach to patient safety  
  ▪ Introduce patient charts and information systems  
  ▪ Discuss the scopes of pharmacy services (24 hour vs. night cabinet, outpatient services, buying groups, centralized vs. decentralized, etc.)  
  ▪ Discuss student background, pharmacy experiences, career goals, and specific personal goals for this learning experience  
  ▪ Discuss activity checklist, grading, and expectations for the rotation  
  ▪ Discuss competencies (reviewing and approving provider orders, screening for drug related problems, preparing IV admixtures, dispensing medications, interdisciplinary teamwork, and patient education) used in a hospital pharmacy  
  ▪ Understand the use and roles of automation and safe medication practices in inventory control (acquisition, storage, dispensing, administration, monitoring, disposal, etc.)  
  ▪ Discuss the flow of medications through the hospital and the responsibilities of pharmacy staff related to workflow  
  ▪ Review the pharmacy’s Policy and Procedure Manual and how policies are developed (e.g. Medication use)  
  ▪ Participate in rounding with a pharmacy technician |
| Prepare | o Pharmacy Workflow Report (Appendix A) |
# Week 2 Preparation and Distribution Process

## Objectives

Understand the procedures required for the safe and accurate preparation, labeling, dispensing, and distribution of medication orders.

Perform accurate pharmaceutical calculations especially involved in the preparation of compounded oral topical, rectal, ophthalmic, or parenteral medications and pharmacokinetic calculation of appropriate doses.

## Weekly

- Perform and/or review pharmaceutical calculations
- Review medication orders for completeness, appropriateness, safety, adherence to medication, and formulary guidelines

## Activities

- Present Pharmacy Workflow Report
- Participate actively in the preparation and distribution of medications via 1st dose, cart fill, dispensing machines, and robotics
  - Selecting correct medication dosage form
  - Labeling product
  - Billing the product when applicable
  - Noting/determining the expiration date
  - Packaging inpatient medications (i.e. bulk liquids, eye drops, creams) for continued use on out-patient basis
  - Identify medications by brand and generic names
- Compounding or unit dose packaging
- Scan medications for stocking and restocking
- Participate in the delivery of drugs to floor
- Review policies on medication error reporting, adverse drug reactions (ADR) and controlled substances
- Discuss and participate in the department's procedure for handling drug shortages, medication recalls and disposition of expired medications
- Participate in providing 1st doses or missing doses to inpatients

## Prepare

- Medication Movement Project (Appendix B)
- Identify the topic for your Health Education Project (Appendix F)
# Week 3  Purchasing and Inventory Control

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Weekly</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand the procedures required for the safe and accurate preparation,</td>
<td>o  Participate actively in the preparation and distribution process</td>
<td>o  Present Medication Movement Project</td>
</tr>
<tr>
<td>labeling, dispensing, and distribution of medication.</td>
<td>o  Perform and/or review pharmaceutical calculations</td>
<td>o  Communicate with prescribers to obtain or to transmit information and recommendations</td>
</tr>
<tr>
<td>Effectively and empathetically communicate with healthcare providers</td>
<td>o  Review medication orders</td>
<td>o  Discuss the health-systems process for purchasing pharmaceuticals (including contracting, how orders are placed, received and stocked; how products are distributed within the health system, including stocking of satellites, clinics and off-site locations, etc.)</td>
</tr>
<tr>
<td>in a culturally sensitive manner.</td>
<td>o  Complete Medication Profile Reviews (Appendix C)</td>
<td>o  Discuss the role/use of automated dispensing systems (e.g., Pyxix, Omnicell, etc.) in the health system</td>
</tr>
<tr>
<td>Demonstrate a commitment to patient safety by assuring accurate dispensing</td>
<td>o  Interact with health care providers to resolve medication issues</td>
<td>o  Discuss and participate in the department's procedure for the disposal of expired medications, sharps, chemo, and toxic waste</td>
</tr>
<tr>
<td>of medication.</td>
<td>o  Drug Information Queries (Appendix D)</td>
<td>o  Discuss process for managing medical emergencies</td>
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<td></td>
<td>o  Discuss and assist (if possible) in the preparation and checking of an emergency crash cart, ACLS kit, transfer kit, ambulance box, cardiac arrest box, exchange box, or specialized floor stock</td>
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</tbody>
</table>
### Week 4 Medication Safety

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Activities</th>
</tr>
</thead>
</table>
| Effectively and empathetically communicate with health care providers in a culturally sensitive manner. | - **Weekly**
  - Participate actively in the preparation and distribution process
  - Perform and/or review pharmaceutical calculations
  - Review medication orders
  - Complete Medication Profile Reviews (Appendix C)
  - Interact with health care providers to resolve medication issues
  - Drug Information Queries (Appendix D)

  - **Activities**
    - Discuss risk management and how it is handled at the institution
    - Discuss and/or participate in handling high-risk/high-alert drugs
    - Discuss the policies for ADR monitoring and incident reporting. If possible,
      - Meet with the medication safety officer to review processes.
      - Conduct/participate in a review of a medication error or adverse drug event.
      - Attend a medication safety meeting
    - Discuss USP-800, Hazardous Drugs – Handling in Healthcare Settings
      - Review the site’s training materials covering USP-800

Demonstrate a commitment to patient safety by assuring accurate dispensing of medication.
<table>
<thead>
<tr>
<th>Week 5 Laws, Regulations, and Ethics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objectives</strong></td>
</tr>
<tr>
<td>Maintain professional and ethical behavior in all practice environments, demonstrating empathy, cultural sensitivity, and professional communications in compliance with all laws, regulations, and professional standards.</td>
</tr>
<tr>
<td><strong>Weekly</strong></td>
</tr>
<tr>
<td>- Participate actively in the preparation and distribution process</td>
</tr>
<tr>
<td>- Perform and/or review pharmaceutical calculations</td>
</tr>
<tr>
<td>- Review medication orders</td>
</tr>
<tr>
<td>- Complete Medication Profile Reviews</td>
</tr>
<tr>
<td>- Interact with health care providers to resolve medication issues</td>
</tr>
<tr>
<td>- Drug Information Queries</td>
</tr>
<tr>
<td><strong>Activities</strong></td>
</tr>
<tr>
<td>- Review and discuss the impact of regulatory agencies on the practice of hospital pharmacy (e.g. state and federal laws, HIPAA, TJC (JCAHO), CMS, Board of Pharmacy, Residency Review Board, OSEH, etc.)</td>
</tr>
<tr>
<td>- Select a Joint Commission Standard relating to medication management, pharmacy practice or health care law to review and discuss with preceptor</td>
</tr>
<tr>
<td>- Discuss the site’s most recent Joint Commission accreditation survey</td>
</tr>
<tr>
<td>- How did the Pharmacy Department prepare for the survey?</td>
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<tr>
<td>- Were there any pharmacy-specific or medication use citations? If so, how have these been addressed?</td>
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<tr>
<td>- What barriers were encountered in resolving the issues?</td>
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<tr>
<td>- Discuss laws related to specific topics and how the site addresses the issue. Topics may include:</td>
</tr>
<tr>
<td>- Controlled substances</td>
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<tr>
<td>- Methadone</td>
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<tr>
<td>- Tikosyn</td>
</tr>
<tr>
<td>- Suboxone</td>
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<tr>
<td>- Authorized prescribers (including PAs and NPs)</td>
</tr>
<tr>
<td>- Sedation credentialing</td>
</tr>
<tr>
<td>- Electronic health records</td>
</tr>
<tr>
<td>- Purchasing medications</td>
</tr>
<tr>
<td>- Risk Evaluation and Mitigation Strategies</td>
</tr>
<tr>
<td>- Hospital ethics committee</td>
</tr>
</tbody>
</table>
## Week 6 Preparation and Administration of IV Medications

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Required Activities</th>
</tr>
</thead>
</table>
| Understand the procedures required for the safe and accurate preparation, labeling, dispensing, and distribution of medication orders. | **Weekly**  
- Participate actively in the preparation and distribution process  
- Perform and/or review pharmaceutical calculations  
- Review medication orders  
- Complete Medication Profile Reviews  
- Interact with health care providers to resolve medication issues  
- Drug Information Queries  
**Activities**  
- Review institution's training materials covering USP-797 on IV admixture/sterile product preparation  
- Review and demonstrate aseptic technique and prepare IV admixtures/sterile products  
  - Review and interpret provider orders for IV medications/sterile products correctly  
  - Perform necessary calculations  
  - Screen for incompatibilities  
  - Generate and/or verify labels  
  - Inspect and approve the final sterile product  
- Compare horizontal and vertical laminar flow hoods  
- Review and discuss policies on flow hood maintenance  
- Describe the proper method of working in the hood, including hand washing, gowning and attire, operating the hood, hood cleaning  
- Become familiar with various infusion aids (e.g. heplock, smart pumps, central vs. peripheral lines, patient controlled analgesia, etc.)  
- Review IV compatibility issues and what resources to use and how  
**Prepare**  
- Plan/schedule 2 shadow experiences with pharmacists during weeks 8-9  
- Plan/schedule 3 interprofessional health care provider (nursing staff, unit staff, physician, dietitians, etc.) shadowing experiences during weeks 9-12  
- Plan/schedule to participate in 2 pharmacy services (pharmacokinetics, anticoagulation, antimicrobial stewardship, discharge counseling, renal dosing, medication reconciliation, transitions of care, etc.) during weeks 7 and 9 |
## Week 7 Formulary Management and Medication Use Policy

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Required Activities</th>
</tr>
</thead>
</table>
| **Assess information needs of patients and health care providers and apply knowledge of study design and literature analysis and retrieval to provide evidence-based drug information.** | **Weekly**  
- Participate actively in the preparation and distribution process  
- Perform and/or review pharmaceutical calculations  
- Review medication orders  
- Complete Medication Profile Reviews  
- Interact with health care providers to resolve medication issues  
- Drug Information Queries  
- Collect accurate and comprehensive drug information to make evidence-based decisions  
- Review FDA alerts (Appendix E) |
| **Effectively and empathetically communicate with health care providers in a culturally sensitive manner.** | **Activities**  
- Demonstrate utilization of drug information resources  
- Review clinical decision making within EPOS system  
- Describe the role and purpose of Pharmacy and Therapeutics (P&T) Committee  
- Discuss formulary policy and how drugs are chosen for the formulary  
- Review the policy and discuss/participate in the department’s procedure for handling the medications brought from the patient’s home  
- Discuss and participate in the department’s procedure for therapeutic substitution  
- Discuss and participate in the department’s medication use evaluation process (help draft/design, collect data for, analyze, and/or report results)  
- Discuss and/or participate in the department’s procedure for monitoring and dispensing of restricted drugs (including those with a REMS requirement) and/or investigational drugs  
- Midpoint Evaluation (Appendix G)  
  - Preceptor will complete Evaluation of Student and student will complete Student Self-Evaluation  
  - Student and Preceptor will then meet to discuss student progress |
| **Demonstrate a commitment to patient safety by assuring accurate dispensing of medication.** | |

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## Week 8 Communication

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Required Activities</th>
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</thead>
</table>
| Understand the procedures required for the safe and accurate preparation, labeling, dispensing, and distribution of medication orders. | - **Weekly**
  - Participate actively in the preparation and distribution process
  - Perform and/or review pharmaceutical calculations
  - Review medication orders
  - Complete Medication Profile Reviews
  - Interact with health care providers to resolve medication issues
  - Drug Information Queries
  - Collect accurate and comprehensive drug information to make evidence-based decisions
  - Review FDA alerts
| Effectively and empathetically communicate with health care providers in a culturally sensitive manner. | - **Activities**
  - Become familiar with other pharmacy locations including OR, first dose satellite, IDS (Investigational Drug Service), infusion center, outpatient pharmacy, clean room, pediatric hospital satellite, and drug procurement/inventory control
  - Shadow Experience:
    - Shadow a pharmacist, or
    - Interprofessional Shadow Experience:
      - Shadow 1 non-pharmacist health care provider
  - Participate in at least 1 of the following services:
    - Pharmacokinetic dosing service
    - Anticoagulation service
    - Renal dosing service
    - Antimicrobial service
    - IV to PO conversion
    - Target drug problems
    - Medication reconciliation
    - Discharge counseling/education
| | - **Prepare**
  - Plan/schedule meeting with or shadowing a hospital administrator during week 12 |
### Week 9 Satellite Pharmacies and Other Pharmacy Services

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Required Activities</th>
</tr>
</thead>
</table>
| Effectively and empathetically communicate with health care providers in a culturally sensitive manner. | **Weekly**  
  o Participate actively in the preparation and distribution process  
  o Perform and/or review pharmaceutical calculations  
  o Review medication orders  
  o Complete Medication Profile Reviews  
  o Interact with health care providers to resolve medication issues  
  o Drug Information Queries  
  o Collect accurate and comprehensive drug information to make evidence-based decisions  
  o Review FDA alerts  

<table>
<thead>
<tr>
<th>Activities</th>
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</tr>
</thead>
</table>
| • Become familiar with other pharmacy locations including OR, first dose satellite, IDS (Investigational Drug Service), infusion center, outpatient pharmacy, clean room, pediatric hospital satellite, and drug procurement/inventory control | **Activities**  
  o Shadow Experience:  
    ▪ Shadow a pharmacist, or  
    ▪ Interprofessional Shadow Experience:  
      Shadow 1 non-pharmacist health care provider  
  o Describe how pharmacy-based clinical services are accomplished and documented/communicated to caregivers  
  o Participate in one or more of the pharmacy specialty areas (e.g. Nutrition, Oncology, Cardiology, Pediatrics, Specialty Pharmacy, etc.) |
### Week 10 Satellite Pharmacies and Other Pharmacy Services

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Required Activities</th>
</tr>
</thead>
</table>
| Effectively and empathetically communicate with health care providers in a culturally sensitive manner. | • Weekly  
  o Participate actively in the preparation and distribution process  
  o Perform and/or review pharmaceutical calculations  
  o Review medication orders  
  o Complete Medication Profile Reviews  
  o Interact with health care providers to resolve medication issues  
  o Drug Information Queries  
  o Collect accurate and comprehensive drug information to make evidence-based decisions  
  o Review FDA alerts  

• Activities  
  o Become familiar with other pharmacy locations including OR, first dose satellite, IDS (Investigational Drug Service), infusion center, outpatient pharmacy, clean room, pediatric hospital satellite, and drug procurement/inventory control  
  o Interprofessional Shadow Experience: Shadow 1 non-pharmacist health care provider  
  o Participate in one or more of the pharmacy specialty areas (e.g. Nutrition, Oncology, Cardiology, Pediatrics, etc.) |
# Week 11 Satellite Pharmacies and Other Pharmacy Services

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Required Activities</th>
</tr>
</thead>
</table>
| Effectively and empathetically communicate with health care providers in a culturally sensitive manner. | • **Weekly**  
  o Participate actively in the preparation and distribution process  
  o Perform and/or review pharmaceutical calculations  
  o Review medication orders  
  o Complete Medication Profile Reviews  
  o Interact with health care providers to resolve medication issues  
  o Drug Information Queries  
  o Collect accurate and comprehensive drug information to make evidence-based decisions  
  o Review FDA alerts  
 |  
| Understand the procedures required for the safe and accurate preparation, labeling, dispensing, and distribution of medication orders. | • **Activities**  
  o Become familiar with other pharmacy locations including OR, first dose satellite, IDS (Investigational Drug Service), infusion center, outpatient pharmacy, clean room, pediatric hospital satellite, and drug procurement/inventory control  
  o Interprofessional Shadow Experience: Shadow 1 non-pharmacist health care provider  
  o Participate in at least 1 of the following services:  
    ▪ Pharmacokinetic dosing service  
    ▪ Anticoagulation service  
    ▪ Renal dosing service  
    ▪ Antimicrobial service  
    ▪ IV to PO conversion  
    ▪ Target drug problems  
    ▪ Medication reconciliation  
 |  
|  | • **Prepare**  
  o Have preceptor approve final version of Health Education Project  

## Week 12 Operations and Management

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Required Activities</th>
</tr>
</thead>
</table>
| Describe the procedures required in the sound management and operation of a pharmacy. | • Weekly  
  o Participate actively in the preparation and distribution process  
  o Perform and/or review pharmaceutical calculations  
  o Review medication orders  
  o Complete Medication Profile Reviews  
  o Interact with health care providers to resolve medication issues  
  o Drug Information Queries  
  o Collect accurate and comprehensive drug information to make evidence-based decisions  
  o Review FDA alerts  
• Activities  
  o Present Health Education Project  
  o Meet/shadow a pharmacy administrator to discuss how the department prioritizes activities and challenges  
    ▪ Product ordering, pricing  
    ▪ Stocking medication  
    ▪ Financial challenges  
    ▪ Drug shortages  
    ▪ Staffing shortages  
    ▪ Indigent care programs  
    ▪ Review institution-specific policies and procedures  
    ▪ Security systems and methods of controlling internal/external thefts  
    ▪ Workload reporting  
    ▪ Personnel recruitment; personnel management  
    ▪ Development/implementation of new services  
    ▪ Quality improvement  
  o Learn about the various department and hospital committees. If possible, attend a committee meeting (Pharmacy and Therapeutics Committee; Medication Use Evaluation Committee; Risk Management Committee; Safety Committee, etc.)  
  o Describe the hospital’s policy pertaining to pharmaceutical representatives and drug samples.  
    ▪ Discuss the department's procedure for handling drug samples  
  o Interprofessional Shadow Experience: Shadow 1 non-pharmacist health care provider  
• Complete the Rotation Activity Checklist |
### Week 13 Review/Reflect

<table>
<thead>
<tr>
<th>Required Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weekly</strong></td>
</tr>
<tr>
<td>- Participate actively in the preparation and distribution process</td>
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<tr>
<td>- Perform and/or review pharmaceutical calculations</td>
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<tr>
<td>- Review medication orders</td>
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<tr>
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<tr>
<td>- Drug Information Queries</td>
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<tr>
<td>- Collect accurate and comprehensive drug information to make evidence-based decisions</td>
</tr>
<tr>
<td>- Review FDA alerts</td>
</tr>
<tr>
<td><strong>Activities</strong></td>
</tr>
<tr>
<td>- Student and preceptor will meet to discuss the Rotation Activity Checklist</td>
</tr>
<tr>
<td>- Final Evaluation (Appendix G)</td>
</tr>
<tr>
<td>- Preceptor will complete Evaluation of Student and student will complete Student Self-Evaluation</td>
</tr>
<tr>
<td>- Student and Preceptor will then meet to discuss the student’s progress</td>
</tr>
</tbody>
</table>

Reflect on objectives, review any areas where difficulties/struggles were encountered.

Review important laws and ethics questions again.
APPENDIX A
Pharmacy Workflow Report

Goal

The goal of the Pharmacy Workflow Report is to facilitate understanding of the role of the members of the pharmacy team and the process of preparing and distributing medications to patients.

Due

Information should be gathered during week 1. The diagram/flow chart should be presented during week 2.

Instructions

1) Observe and discuss the workflow process of filling prescriptions within the pharmacy
   a. Roles of personnel involved (pharmacy technicians, pharmacists, etc.)
   b. Order verification by pharmacist
   c. Product selection
   d. Labeling of the product
   e. Storage of medications – stocking on the units
   f. Checking and verifying the prescription
   g. Medication error prevention
   h. Include any other relevant steps

2) Create a detailed diagram/flow chart that shows the workflow of the pharmacy as observed above.

3) Present and discuss diagram/flow chart with the preceptor during week 2.
APPENDIX B
Medication Movement Project

Goal
Understand the flow of medication from the point of purchase to distribution to disposal in the health system/hospital setting.

Due
Information should be gathered during weeks 1 and 2. We suggest the diagram/flow chart be presented during week 3, but it should be scheduled at the convenience of the preceptor and site.

Instructions
1) Observe and discuss the movement of a medication through the hospital/health system:
   a. Acquisition
   b. Storage
   c. Dispensing
   d. Administration
   e. Monitoring
   f. Disposal
   g. Billing
2) Document the process in a diagram or flow chart.
3) Present to preceptor and/or other appropriate audience.
APPENDIX C

Medication Profile Review

Goal
The goal of the Medication Profile Review is to give students practice assessing drug therapy, identifying problems and developing plans to resolve problems.

Due
This is a weekly activity. You should complete at least 7 medication profile reviews during the 13-week practice experience.

Instructions
These reviews will take place outside the dispensing workflow to allow for formal assessment to take place.

1) Keep a record of computer DUR “flags” or clinical alerts for later evaluation and discussion with preceptor

2) Review (ASSESS*) the patient profile with regard to the drug therapy assessment worksheet (DTAW) categories taught in previous classes, including:
   a. Drug use without an indication
   b. Appropriate drug selection
   c. Drug regimen (sub therapeutic dose or overdose)
   d. Therapeutic duplication
   e. Drug allergy/intolerance
   f. Adverse events
   g. Drug interactions
   h. Social or recreational drug use
   i. Adherence/failure to receive therapy
   j. Financial impact
   k. Patient knowledge of drug therapy

3) Develop a modified pharmacy care plan (PLAN*) for each patient, then discuss the plan with their preceptor, including the following:
   a. Drug therapy problems identified.
   b. Proposed intervention or action plan.

4) Log the pertinent information into the table below.

<table>
<thead>
<tr>
<th></th>
<th>Date</th>
<th>Patient Identifier</th>
<th>Problem Identified</th>
<th>Recommendations/Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>2</td>
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</tbody>
</table>

*JCPP TERMS
Goal
The purpose of this assignment is to allow you to gain experience in researching diverse drug information queries that arise in clinical practice by formulating a logical response based on the information you find.

Due
This is a weekly activity. You are expected to research at least 1 drug information query from each of the following categories during the 13-week practice experience: dosing/dosage form, pregnancy, lactation, IV compatibility, and drug interaction.

Instructions
1) Questions should be identified from your rotation experience, such as:
   a. Information you need to manage medications for a specific patient.
   b. Questions posed by your preceptor.
   c. Clinical query you are simply curious about.
2) Select the category of question you are answering:
   a. Dosing/Dosage form
   b. Pregnancy
   c. Lactation
   d. IV Compatibility
   e. Drug Information
3) Then briefly state the question, your search process including references, and your response based on the information found.
4) Discuss with preceptor and/or other appropriate audience.
5) Log the information into the Drug Information Query Worksheet (Appendix D.1).
<table>
<thead>
<tr>
<th>Query</th>
<th>Date</th>
<th>Question</th>
<th>Search Process</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dosing/Dosage Form</td>
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<td></td>
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<tr>
<td>Pregnancy</td>
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<tr>
<td>Lactation</td>
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<tr>
<td>IV Compatibility</td>
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<tr>
<td>Drug Interaction</td>
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</tbody>
</table>
APPENDIX E
FDA Alert

Goal
The goal of this assignment is to understand the process of notification by the Food and Drug Administration (FDA) of an adverse event, safety information alert, labeling change, etc., and how these notifications may impact the institution.

Due
This is a weekly activity. You should do 3 of these over the course of the 13-week rotation.

Instructions
1) Visit www.fda.gov/drugs
   a. Drug Recalls
   b. MedWatch: The FDA Safety Information and Adverse Event Reporting Program
   c. Recalls, Market Withdrawals, & Safety Alerts
2) Select one article/notification from the above and discuss that alert with Preceptor and/or other appropriate audience
   a. Implications of this alert
   b. How does this apply to the site
APPENDIX F
Health Education Project

Goal
The goal of the health education project is to highlight an area of the drug preparation, labeling, dispensing, and distribution of medication order process to benefit the health care team.

Due
We suggest that the student presents their display during week 12 of the practice experience; however it is to be scheduled at the convenience of the preceptor and the site.

Instructions
1) During week 2, student and preceptor should jointly determine topic for the display.
   a. The topic should focus on one area of the drug preparation, labeling, dispensing, and distribution process.
2) The display could include a poster, a flyer, an in-service presentation to staff, a demonstration, etc.
   a. Medium for the presentation should be mutually agreed upon by student and preceptor.
   b. Handouts must be selected and compiled carefully by the student from credible sources, without plagiarizing.
3) ALL materials must be approved by the preceptor before the presentation.
4) Present project to preceptor and/or appropriate audience.
### APPENDIX G

**Evaluation of Student**

**Satisfactory**: The student meets expectations consistently; requires minimal to moderate guidance from the preceptor; displays developing knowledge, skills and/or attitudes that require further improvement.

**Unsatisfactory**: The student does not meet expectations consistently; performs sporadically; requires extensive guidance from the preceptor; displays developing knowledge, skills and/or attitudes that require significant improvement.

The student understands the role of pharmacists and pharmacy technicians and the roles of members of an interprofessional team.

- Describe the role of the pharmacist.
- Describe the role of pharmacy technicians and the various levels of technician training.
- Differentiate pharmacist and pharmacy technician responsibilities.
- Participate as a member of an interprofessional team.

The student effectively and empathetically communicates with health care providers in a culturally sensitive manner.

- Cultural sensitivity is displayed in communication.
- Communicate pertinent drug-related information.
- Information is correctly gathered and transmitted to prescribers.
- Convey any issues in terms of dose, allergies, potential drug interactions, etc.

The student maintains professional and ethical behavior in all practice environments, demonstrating empathy, cultural sensitivity, and professional communications in compliance with all laws, regulations, and professional standards.

- Understand and apply the laws regarding controlled substances, including dispensing, storage, prescription labeling, pharmacist final check, medication acquisition, and inventory.
- Understand and apply the laws that govern other aspects of pharmacy practice in the institutional setting.
- Institution-specific policies/procedures
- Practice ethically, including maintaining patient confidentiality, responding to errors in care, and professional misconduct.
- Comply with federal, state, and local laws and regulations related to pharmacy practice.

The student understands the procedures required for the safe and accurate preparation, labeling, dispensing, and distribution of medication orders.

- Participate in providing first doses or missing doses to inpatients.
- Handle medications brought from a patient's home.
- Review medication orders
- Determine if the dosage regimen, dosage form, quantity, and medication choice are appropriate for the particular patient and condition being treated
- Package inpatient medications (e.g. bulk liquids, eye drops, creams) for continued use on an outpatient basis.
- Prepare medication orders accurately (selecting medication/dosage form, labeling, billing, etc.)

The student performs accurate pharmaceutical calculations especially involved in the preparation of compounded oral, topical, rectal, or parenteral medications and pharmacokinetic calculation of appropriate doses.

- Apply mathematical principles in pharmacy practice.
- Perform calculations required to compound, dispense, and administer medications.
- Complete accuracy is displayed in performing these calculations.

**Demonstrate a commitment to patient safety by assuring accurate dispensing of medication.**
- Communicate with prescribers regarding medication orders.
- Perform a basic review of a patient's medication profile to identify medication allergies, correct doses, duplicate medications, and important drug interactions.
- Accurately prepare and distribute medications.
- Apply legal and ethical principles related to the safe distribution of medications.

**The student assesses information needs of patients and health care providers and applies knowledge of study design and literature analysis and retrieval to provide evidence-based drug information.**
- Summarize key information related to the use of common medications.
- Identify brand and generic names, dosage forms, and usual dosing ranges for common medications.
- List and describe the mechanism(s) of common drug interactions.

**The student describes the procedures required in the sound management and operation of a pharmacy.**
- Institution-specific policies and procedures.
- Scope of pharmacy services (24-hour vs. night cabinet, outpatient services, buying groups, etc.).
- Formulary/nonformulary policy.
- Department and hospital committees.
- Security systems and methods of controlling internal/external theft.

**Rotation Activity Checklist**

This rotation requires students to complete a Rotation Activity Checklist
Did you and your student review this checklist for completion?

**Work Ethic**

- Self-directed learner and takes ownership of work.
- Identifies and engages in learning opportunities.
- Reliable, conscientious, and responsible.
- Completes assigned work efficiently.

**Absences**

Number of days student was absent:
Were the absences adequately made up? Please explain.

**Professionalism Assessment**

Evaluation Criteria:
- Arrive at practice site on time prepared and ready for work.
- Behave ethically and compassionately.
- Daily work/assignments/projects are completed on time.
- Daily work/assignments reflect the student's best quality of work.
- Adhere to policies/regulations for patient confidentiality.
- Convey a professional image through dress and behavior.
- Accept constructive feedback.

Comments/examples (required for unacceptable):

### Overall Performance

1. What skills, knowledge, or attitudes require improvement?
2. What strengths has this student displayed?
3. What specific actions could the student take to improve his or her performance during future rotations?

### Final Grade

The student's final grade for this introductory practice experience is: Pass/Fail