UF | College of Pharmacy
Office of Experiential Programs
UNIVERSITY of FLORIDA

Hospital Introductory Pharmacy Practice Experience Workbook
Summer 2015

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UF College of Pharmacy
Office of Experiential Programs
UNIVERSITY *of* **FLORIDA**

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Overview of Goals

- The student should spend the majority of their time in the inpatient pharmacy learning the roles and responsibilities of every staff member. **This is a medication use process and systems based experience, not a clinical experience.**
- Students should be encouraged to work with pharmacy technicians, including those responsible for purchasing, filling medication dispensing machines, as well as those in satellite locations.
- Please tailor any additional discussions to developing the student understanding of the medication use process in the hospital as needed.

<div style="border:1px solid red">

Students must hand in a completed and signed workbook no later than the first Friday of the Fall Semester to receive a passing grade.

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The primary intent of the Hospital IPPE is to facilitate students' continuing professional development in the context of the hospital pharmacy practice setting. Through structured activities and assignments, students will build upon knowledge and skills developed in the first year of the didactic curriculum. Students will continue to explore the concepts of professionalism and shared accountabilities for health care outcomes; formulate a personal philosophy of and approach to professional practice; expand drug and disease knowledge; and develop practical, critical thinking and life-long learning skills. This experience seeks to provide students with direct exposure to the dynamics of the hospital pharmacy workplace and to guide them to a realistic assessment of the challenges and opportunities that exist therein.

This experience will emphasize the following goals:
- **Preparation and Dispensing of Oral and Non-Compounded IV Medications**: Assist in the preparation and dispensing of controlled and non-controlled medications, under the direct supervision of a pharmacist, following existing standards of practice and the health system's policies and procedures.
- **Preparation and Dispensing of Compounded IV Medications**: Assist in the preparation and dispensing of intravenous medications, under the direct supervision of a pharmacist, following existing standards of practice and the health system's policies and procedures.
- **Pharmacy Administration**: Demonstrate an understanding of the organizational structure and role of the pharmacy department as well as the activities of pharmacy personnel in medication management and patient safety.
- **Communication and Professionalism**: Demonstrate the ability to interact verbally and in writing with healthcare providers and patients by gathering, organizing, and appropriately recording information. Take personal responsibility for attaining excellence in one's own ability to provide pharmaceutical care. Demonstrate mature and professional attributes, habits and behaviors.

Activities of the hospital IPPE focus on clarifying distinguishing characteristics of hospital pharmacy practice and developing fundamental skills necessary to practice effectively in the hospital pharmacy setting. **A sample calendar has been included on the following page as a guide in developing the rotation experience; preceptors are NOT required to use the calendar.** This workbook will supplement the student's learning during this month-long practice experience. An answer key is not provided as most of the workbook questions are institution-specific. *Hospital Pharmacy Director's Forum* is a required book for the Hospital IPPE. **All hospital IPPE preceptors will receive a copy of the *Hospital Pharmacy Director's Forum* textbook in the mail and will be provided access to an electronic copy of the workbook**. Some of the required readings are from this book and others are available on-line. A list of the required readings may be found on page 42.

Sample Calendar of Activities ****Preceptors are not required to use this calendar and may develop any training plan, which best fits the needs/workflows of the site and also meets the requirements of the rotation.** Consider having student work a night/evening shift and a weekend to see differences in workflow.

Week 1 FOCUS: Distribution process/order entry	**AM** Orientation to pharmacy, staff, and hospital Discuss goals and objectives for clerkship; set clear expectations **PM** Work with a tech delivering medications/IVs	**AM** Controlled substance (CS) dispensing – work with tech and/or pharmacist Work with tech/pharmacist filling automated dispensing equipment **PM** Order entry/final product check	**AM** CS dispensing Assist in filing automated dispensing equipment **PM** Order entry/final product check	**AM** CS dispensing Assist in filing automated dispensing equipment **PM** Order entry/ check carts	**AM** Activity time **PM** Order entry/check carts
Week 2 FOCUS: Distribution process, medication management	**AM** Order entry Work with RN – observe med pass **PM** Check carts Discussion with Director of Pharmacy about philosophy of department, role of department in the institution	**AM** Work with purchasing person Order entry **PM** Check carts Check for expired medications in pharmacy or on nursing unit Work with person who does pharmacy personnel scheduling	**AM** Do medication histories and/or discharge counseling Activity time **PM** Discuss USP 797 standards with pharmacist Discuss process of determining compatibility and stability with pharmacist	**AM** Intro to IVs –review policies and procedures regarding training, cleaning, documentation and other related requirements **PM** Discuss function of P&T Committee and formulary system with pharmacist/director Complete medication histories/discharge counseling	**AM** Review aseptic technique; practice on expired IVs if available Complete medication histories/discharge counseling **PM** Midpoint evaluation Activity time
Week 3 FOCUS: IV Therapy	**AM** IV Room – Assist with pulling IV bag, ingredients, and supplies, calculations and final product check **PM** Deliver IVs with tech	**AM** IV Room **PM** Activity time Deliver IVs with tech	**AM** P&T Committee IV Room **PM** Deliver IVs	**AM** IV Room **PM** Work with IV pharmacist on TPN and chemo calculations and preparation	**AM** IV Room **PM** Activity time
Week 4 FOCUS: Pharmacy administration	**AM** Order entry Review contents of crash cart with a pharmacist **PM** Discuss with pharmacist the function of The Joint Commission and medication management standards	**AM** Discharge counseling and/or medication histories **PM** Pharmacy staff meeting New drug presentation to pharmacy staff	**AM** Activity time **PM** Discuss with director or pharmacist the role of pharmaceutical reps in the facility	**AM** Infection Control meeting with Director of Pharmacy **PM** Activity time	**AM** Activity time **PM** Final Evaluation

Preparation & Dispensing of Oral and Non-Compounded IV Medications

Section Overview
The primary intent of the Hospital IPPE is to facilitate students' continuing professional development in the context of the hospital pharmacy practice setting. Throughout the IPPE, students will build upon knowledge and skills developed in the first and second years of the didactic curriculum, drawing upon those experiences to develop their understanding of the medication use process, focusing specifically on dispensing. Students will take part in the shared accountability for health care outcomes, formulate a personal philosophy of and approach to professional practice, expand their drug and disease knowledge, and ultimately promote patient safety.

Learning Objectives
Assist in the preparation and dispensing of controlled and non-controlled medications, under the direct supervision of a pharmacist, following existing standards of practice and the health system's policies and procedures. Upon completing this rotation, students should be able to describe / discuss the following:

- The medication use process at the practice site
- Inventory control, purchasing procedures, and storage for controlled and non-controlled medications in the hospital setting
- The management of a hospital's formulary and how non-formulary requests, including patients' personal medications, are addressed
- Strategies used by hospitals to assess drug utilization and handle drug shortages within the confines of legal requirements
- The process of dispensing controlled and non-controlled medications in an institutional setting following the health system's policies and procedures
- The appropriateness of a medication order with the pharmacist and specific components the pharmacist is looking for and reviewing to assist the student in developing their own systematic approach to order verification
- Process for final product verification with the pharmacist to assist student in development of personal systematic approach to final product verification
- The process for disposing of expired controlled and non-controlled medications
- How technology/automation assists in the medication use process
- The basics of pharmacy information systems (PIS)
- The concept of automated dispensing cabinets and advantages to pharmacy and nursing
- How and why Bar-Coded Medication Administration (BCMA) improves patient safety
- What Computerized Physician Order Entry (CPOE) is – the benefits and the limitations or unintended consequences
- The difficulties of implementing CPOE, the impact to pharmacy and how pharmacy supports implementation and deployment

Required Activities Checklist

Preparation and Dispensing of Oral and Non-Compounded IV Medications	
(40 hours is recommended to meet the above objectives and required activities; preceptor may reduce number of hours if student has been employed as a pharmacy technician in a hospital inpatient pharmacy for at least 300 hours).	**Preceptor Sign Off w/Initial and Date**
Identify and list the components of the medical record. As available at your institution, take time to familiarize yourself with both paper and electronic charts. ***Watch Partners in e video Lesson 1.3: Introduction to Pharmacy Informatics and Lesson 5: CPOE and Patient Safety available on the IPPE course website***	
Order Entry and Verification	
Discuss computerized physician order entry (CPOE) with your preceptor. If available at your institution, observe CPOE for medications at the point of care; otherwise, assist in writing a medication order in a patient chart. ***Required reading: Electronic Prescribing (Director's Forum, pages. 30 – 38)***	
Assist in the interpretation and evaluation of medication orders, including reviewing orders for duplications, allergies, interactions, and dosing.	
Discuss with a pharmacist how CPOE and associated order sets can affect workflow (e.g. duplications, order necessity, etc.)	
Discuss a pharmacist's management of orders for medications that are not routinely stocked by the hospital (i.e. non-formulary medications).	
Accurately perform calculations necessary in filling medication orders.	
Identify ways to resolve incorrect medication orders at the point of order verification.	
Observe how the clinical, decentralized, and/or staff pharmacists document their clinical activities and/or recommendations.	
Medication Preparation and Dispensing	
Describe and participate in the process for prioritizing, preparing, and distributing the medication once the order is deemed appropriate (including participation in non-sterile compounding, if applicable).	
Assist in dispensing controlled substances, including documentation, security procedures, and reconciliation of any inventory discrepancies.	
Assist in dispensing unit dose drug orders.	
Assist in checking medications in medication carts and batch fills, if applicable.	
Watch Partners in e video Lesson 12: Emerging Technologies in Pharmacy available on IPPE course website	
Assist in restocking automated dispensing equipment, including carousels, crash carts, and decentralized medication storage devices, if applicable.	
Assist in delivery of medications, including discussing appropriate use of pneumatic tube systems and which medications may not be sent that route, as well as delivery to decentralized automated dispensing cabinets, if applicable.	
Administration	
Watch Partners in e video Lesson 6: Barcode Medication Administration (BCMA) available on the IPPE course website	
Observe a nurse during the medication administration process, including bar code scanning, infusion pump programming, and medication crushing, if applicable.	

Observe a respiratory therapist during medication administration, including nebulizers and inhalers, as available.	
Inventory and Stock	
Discuss with pharmacy personnel the process for:	
• ordering medications from a vendor and when to reorder medications/IVs, for both controlled and non-controlled substances.	
• assessing utilization and modifying par levels of medications stored in decentralized automated dispensing equipment, if applicable.	
• how patients' home medications are handled when patients bring them into the hospital upon admission. Review your institution's policies and procedures, as appropriate.	
Participate in the process of checking for expired medications in the pharmacy and the subsequent deposition of the medications.	
Medication Reconciliation	
Describe with your preceptor the purpose and process of the medication reconciliation process at the hospital. *Required reading:* *Making Inpatient Medication Reconciliation Patient Centered, Clinical Relevant, and Implementable: A Consensus Statement on Key Principles and Necessary Steps (Jt Comm J Qual Patient Saf 2010 available at:* http://onlinelibrary.wiley.com/doi/10.1002/jhm.849/pdf)	
Participate in the medication reconciliation process with appropriate hospital personnel.	

1. You receive an order for Toprol XL ® 100mg via NG tube daily. What problems, if any, do you see with this order and why? What would you suggest to the physician as an alternative therapy?

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2. Based on your time spent with a pharmacist responsible for order verification, fill in the chart for 5 examples of renal adjustments you and the pharmacist completed.

Medication	Original Dose	CrCl	Adjusted Dose	Reference Used to Answer Question

3. Describe five new drugs you learned about during your IPPE. List their indications, dosing, and discharge counseling points.

New Drug	Indications	Discharge Counseling Points

4. On the day spent engaged in clinical activities, look at a patient's chart that was admitted for a cardiac or respiratory condition. What labs have been ordered for the patient on admission? Why were these specific labs selected?

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5. On the day spent engaged in clinical activities, look at a patient's chart who has at least two insulin orders. What insulin types were ordered? When are the fingerstick glucose checks ordered? Does the patient have sliding scale insulin ordered as well? If so, please list the details of the sliding scale.

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6. A patient was admitted to a monitored bed for a questionable acetaminophen overdose. You have dispensed 20% acetylcysteine solution for this patient to take orally. The nurse calls you and asks how to administer this medication. What is your response?

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Reference (source(s) for answer:
_____

7. How are schedule II controlled substances ordered from a wholesaler?

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8. On a separate sheet, please discuss and answer the following questions with your preceptors (written answers required):

- How long is a DEA Form-222 valid after it is executed (signed and dated) by the purchaser?
- According to federal law, order forms (DEA Form-222) must be maintained for how long?
- Describe the filing process for controlled substances in the hospital pharmacy.
- Who is authorized to write an order for a controlled substance in the patient's medical record?
- How often is the facility required to make a complete and accurate record of all controlled substances on hand? Is this different from performing an inventory on all non-controlled substances on hand?
- How long should the facility keep invoices for controlled substances? Is this different from maintenance of invoices for non-controlled substances?
- What documentation is required to account for wasting controlled substances in patient care areas and in anesthesia? Is this the same procedure followed for wasting of non- controlled substances?
- How does the pharmacy department dispose of expired or unused controlled substances?
- What are the security requirements for controlled substances in the pharmacy as well as those in patient care areas?

9. Using the chart below, list three common oral and intravenous C-II medications used in your institution, their brand and generic names, a frequently seen dose, any special considerations/counseling points, and the reversal agent used, if applicable.

Brand/Generic	Frequently Used Dose	Special Considerations/ Counseling Points	Reversal Agent Name (Note: Not all CII medications have a reversal agent)
Oral			
Oral			
Oral			
IV			
IV			
IV			

Preparation & Dispensing of Compounded IV Medications

Section Overview

Throughout the Hospital IPPE experience, students should become very comfortable with medication dispensing, acknowledging that this includes the preparation of IV formulations. Students will couple the knowledge and skills developed in the first and second years of the didactic curriculum with the hands-on experience of the IPPE to further understand the dispensing and drug information components of IV medication use.

Learning Objectives

Assist in the preparation and dispensing of intravenous medications following existing standards of practice and the health system's policies and procedures. Upon completing this rotation, students should be able to describe / discuss the following:

- The procedure for ensuring appropriateness and accuracy of IV medication orders with a pharmacist
- The differences between the preparation, handling, and disposal of hazardous and non-hazardous IV agents
- The process for preparing IV medications containing a controlled substance (i.e. patient controlled analgesia and epidurals)

Required Activities Checklist

Preparation and Dispensing of Compounded IV Medications	
(40 hours is recommended to meet the above objectives and the required activities; preceptor may reduce number of hours if student has been employed as a pharmacy IV technician in a hospital inpatient pharmacy for at least 300 hours).	**Preceptor Sign Off w/initial and date**
Aseptic Technique	
Assigned Reading: Read The ASHP Discussion Guide for Compounding Sterile Preparations available at: www.ashp.org/s_ashp/docs/files/HACC_797guide.pdf	
Review the health system's training materials on aseptic technique and discuss the process with a pharmacist.	
Discuss the requirements and standards for a USP 797 clean room with a pharmacist.	
Watch the Aseptic Technique Verification System Videos, #2, #3 and #4 posted on the IPPE course website.	
Order Entry and Verification	
Work with a pharmacist during interpretation and evaluation of IV medication orders, reviewing drug, dose, concentration, diluent, and rate of administration.	
Discuss with a pharmacist how to determine IV compatibilities, incompatibilities, and stabilities using common references.	
Review your institution's policies for electrolyte replacement (potassium, magnesium, phosphorus, and sodium) and discuss with a pharmacist.	

Preparation and Dispensing	
Correctly calculate additives needed for any IV product, including total parenteral nutrition (TPN) and patient controlled analgesia (PCA).	
Compare and contrast the preparation, handling, and disposal of: · hazardous and non-hazardous IV medications · controlled and non-controlled IV medications	
Compare and contrast activities associated with the preparation of adult and pediatric IV medications.	
Inspect finalized product with a pharmacist, checking for appropriate drug, diluents, doses, concentrations, expiration dates, and auxiliary labels.	
Medication Administration	
Discuss with either a pharmacist or a nurse the administration of IV medications, including priming the infusion line, programming an infusion pump, and different types of tubing (e.g. filter versus no filter).	
Inventory and Stock	
Discuss with pharmacy personnel the procedure for returning and/or reusing IV preparations.	

1. Give 3 examples of IV compatibility questions you or your preceptor received. (See first row for example: Nurse called to see if Ceftriaxone can be infused at the same time as a Pantoprazole infusion.)

IV Medication in Question	Compatible with _____? (more than one drug may be listed here)	Compatible or incompatible?	Reference used to answer question
Ceftriaxone	Pantoprazole	Compatible	Clinical Pharmacology

2. What resources does your pharmacy use when a nurse calls about a medication that has infiltrated? What are some of the specific actions taken to resolve an infiltration (e.g., meds used, non-pharmacologic treatment, etc…)?

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Reference (source(s) for answer):

_____

3. Complete the table describing the top 3 IV antibiotics dispensed at your hospital site. (Refer to antibiogram, package insert, and/or IV Drug references)

Drug	Indications	Dosages	IV diluents/stability/institutional susceptibility

4. Look at one of your institution's patients on IV KCl continuous infusion. Please write down the order on the following lines. How many mEq of KCl will the patient receive in 24 hours? Please verify your answer with your preceptor and have him/her initial below.

5. Using a patient on at least 3 IV fluid orders (one must be a continuous IV fluid, but the other two can be boluses, IV antibiotics, etc.) and taking into account the frequency of the IV orders, list each order below, and calculate the volume of fluid the patient will receive in 24 hours. Please verify your answer with your preceptor and have him/her initial below. What recommendation can pharmacists make for patients who should not receive large volumes of fluid but still need to receive their medications?

6. You receive an order for pantoprazole for a 70 y.o. male admitted with an upper GI bleed. After the initial dose of 80 mg, it is to run continuously at 8 mg/hr for 72 hours. The concentration of your infusion is 80 mg/100 mL (0.8 mg/mL). Assuming the first bag will start today at 12 noon, at what rate (in mL/hr) will it infuse, and when will the infusion be completed (assuming the infusion is not interrupted)? How many bags will be needed? When would you need to send up a new bag of pantoprazole, keeping in mind its beyond use date?

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7. A patient is admitted to the hospital and made NPO. His only medication is Dilantin extended release 300mg PO Nightly. The resident writes to convert the Dilantin to IV. What factors should be considered when transitioning from oral to IV phenytoin?

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8. Please fill out the following chart concerning IV administration of common drips. Please refer to the institution's standard IV administration guidelines or policy and procedure manual.

Drug	Diluent/Concentration	Rate
Dopamine		
Dobutamine		
Norepinephrine		
Nitroglycerin		
Phenylephrine		

9. A nurse asks you to confirm a drip rate for dopamine. The order is for dopamine 3 mcg/kg/min. The patient weighs 186 lbs. Using the hospital's standard concentration of 400mg/250mL D5W, what is the correct rate in mL/hr?

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10. Where is concentrated potassium chloride stored in the hospital, and why does the hospital have this policy?

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11. Briefly describe the steps in the process of preparing a TPN from the decision to order TPN through the delivery to the patient floor. Consider who is responsible for writing the TPN, evaluating the patient, and pharmacy processes.

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12. What is the most common cause of contamination in an IV admixture? What is the most important aspect of preparing IV admixtures that can decrease the risk of contamination?

13. Why is reducing particulate counts in an IV room important?

14. Match the following commonly used terms and abbreviations with the corresponding IV solutions.

a) NS   _____ Dextrose 5% in Water

b) D5 + ¼ NS   _____ Dextrose 5% in Water with 0.225% Sodium Chloride

c) D5 + 20 KCl   _____ Dextrose 50% in Water

d) ½ NS   _____ 0.9% Sodium Chloride

e) D50W   _____ 0.45% Sodium Chloride

f) D5 + ½ NS   _____ Dextrose 5% in Water with 0.45% Sodium Chloride

g) D5W   _____ Dextrose 5% in Water with 20 mEq Potassium Chloride

15. Define and give an example of the following:

Description	Definition	Example
Hypertonic Solution		
Hypotonic Solution		
Isotonic Solution		

16. List 10 common IV medications used in the hospital that you learned about during your rotation (include indication, dose, and monitoring parameters).

Drug	Indication	Dose	Monitoring Parameters

Pharmacy Administration Activities

Section Overview

One of the major goals of the Hospital IPPE is for the students to gain a comprehensive understanding of the medication use processes in a hospital pharmacy setting and how pharmacy administrative staff are involved in making decisions that affect these processes. Throughout the IPPE, the student will be exposed to various administrative activities that take place in a hospital pharmacy. Students will gain an understanding of the overall responsibilities of the pharmacy administration personnel and how these personnel and their activities are important to successful pharmacy operations within a hospital.

Learning Objectives

Demonstrate an understanding of the organizational structure and the role of the pharmacy department as well as the activities of pharmacy personnel in medication management and patient safety. Upon completing this rotation, students should be able to describe / discuss the following:

- The organizational structure of the pharmacy department and the respective roles, accountabilities, and responsibilities of individual pharmacy staff in medication management as well as the department's role in relation to other hospital departments
- The role of The Joint Commission and its importance to the hospital pharmacy department and the institution
- The Joint Commission's National Patient Safety Goals (NPSG) and how the institution attempts to meet these goals
- The management of ADEs and ADRs
- The purpose of a medication formulary and how it is developed, implemented, and updated
- Issues with drug shortages
- The interaction between pharmacy personnel and pharmaceutical representatives at the institution
- Human resources activities that occur within a pharmacy department (scheduling, disciplinary activities, hiring processes, etc.)
- Administrative meetings that have pharmacy involvement

Pharmacy Administration	
Health System Structure	**Preceptor Sign Off w/initial and date**
Review the organizational structure of the pharmacy department with the pharmacy director or his/her designee. Focus on the roles, accountabilities, and responsibilities of the individual pharmacy staff members in regards to medication management.	
Describe the roles of other institutional departments and their relationships and lines of communication with the pharmacy department.	
Observe a multidisciplinary committee meeting, e.g. Pharmacy and Therapeutics (preferred), Infection Control Committee, Hospital Quality Assurance, Medication Safety)	
Attend the pharmacy department's staff meeting, if applicable.	
Attend other meetings with the pharmacy director or his/her designee as deemed appropriate.	
Explore the pharmacy department's policies and procedures manual in order to become more familiar with the guidance available to pharmacists.	
Review the necessary pharmacy permits/licensure required to operate the pharmacy with the Pharmacy Director or designee as well as permits required by the drug wholesaler, reverse distributor and/or pharmaceutical waste manager.	
Lookup all relevant pharmacy permits/licensure using the Florida Board of Pharmacy licensure verification site at: https://appsmqa.doh.state.fl.us/IRM00PRAES/PRASLIST.ASP	
Accreditation	
Review The Joint Commission medication management standards and discuss with the pharmacy director or his/her designee how the pharmacy department uses these national standards to prepare and maintain accreditation.	
Drug Management	
*Review ASHP's website on Formulary Management: and read their guideline titled:*http://www.ashp.org/DocLibrary/BestPractices/FormStPTCommFormSyst.pdf *Pharmacy and Therapeutics Committee and the Formulary System (AJHP 2008; 65: 1272-1283)* and then discuss with the pharmacy director or his designee the management of the institution's medication formulary. Review institution's policies and procedures, as appropriate.	
Discuss with pharmacy staff the role of the pharmaceutical sales representative in the institution. Review institution's policies and procedures, as appropriate. *Required reading: Industry Relationships and the Pharmacy Director: Striking the Right Balance (Director's Forum, pages 190 – 197)*	

Assigned Reading: Review ASHP's website on Drug Shortages http://www.ashp.org/shortages?WT.ac=hp%5FPopLinks%5FDrug%5FShortages and read their posted guidelines on managing drug shortages (AJHP 2009; 66:1399-1406) and then discuss the hospital's procedure for managing drug shortages with a departmental designee. Review institution's policies and procedures, as appropriate.	
Human Resources	
Discuss human resources activities that occur within the pharmacy department (scheduling, disciplinary actions, hiring processes, etc) with the pharmacy director or a designee. Review institution's policies and procedures, as appropriate. *Required reading: Human Resources Management for the Pharmacy Director (Director's Forum, pages. 109 – 116)*	
Review the written job descriptions for different pharmacy personnel. Focus on the description and functions for each job and how the relationships are set up for responsibility and accountability purposes.	
Medication Safety	
List the NPSGs applicable to the department of pharmacy and discuss with a pharmacist the plan for meeting those patient safety goals at your site (see The Joint Commission website at: http://www.jointcommission.org/standards_information/npsgs.aspx	
Assigned Reading: Read the articles titled: Adverse Drug Reactions: Types and Treatment Options http://www.aafp.org/afp/2003/1101/p1781.pdf and Simple Strategies to Avoid Medication Errors http://www.aafp.org/fpm/2007/0200/p41.pdf and with a pharmacist, discuss the difference between an adverse drug event (ADE)/ medication error and an adverse drug reaction (ADR).	
Discuss with the pharmacy director or designee how ADEs and ADRs are managed. Review institution's policies and procedures, as appropriate. *Required reading: Developing a Medication Patient Safety Program, Part 1 and Part 2 (Director's Forum, pages. 199 – 215)*	
Identify, investigate, and document an ADE or ADR, including reviewing the patient chart.	

1. Eliminating any patient or provider identifiers, please print and attach at least one of the ADR/ADE reports you observed or submitted while on rotation. Please note where in the Medication Process the error occurred (prescribing, transcribing, dispensing, administration, or monitoring).

2. List 5 abbreviations on The Joint Commission's "Do Not Use List" and why are they unacceptable.

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3. You receive a call from a nurse stating that the pharmacy sent him a dose of metformin 500 mg instead of methocarbamol 500 mg. How do you investigate this error and what steps do you take to correct it? Then list 5 examples of **S**ound-**A**like-**L**ook-**A**like **D**rugs (SALAD).

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4. Give 2 examples of drug shortages at your institution and describe the institution's plan for dealing with the drug shortages. How long have they been backordered? Are there alternative agents that can be used to treat patients? Have drug restrictions been implemented? How were prescribers notified of the shortage? What references were used to determine alternate plans?

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5. Give an example of an order that your pharmacy received for a medication the pharmacy does not stock. List how this situation was resolved.

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Communication and Professionalism Activities

Section Overview
The primary intent of this section of the Hospital IPPE is to facilitate students' continuing professional development. Students will explore the concepts of professionalism and communication and begin to formulate a philosophy of shared accountabilities for health care outcomes; formulate a personal philosophy of and approach to professional practice; and develop practical, critical thinking and life-long learning skills.

Learning Objectives
Communication: Demonstrate the ability to interact verbally and in writing with healthcare providers and patients by gathering, organizing, and appropriately recording information.
- Organize all written and verbal information in a logical manner.
- Address all communication at the appropriate level for the audience.

Drug Information: Utilize the available primary, secondary, and tertiary references on site to respond to drug information questions.
- Formulate a systematic, efficient and thorough procedure for retrieving drug information.
- Identify appropriate resources utilized by pharmacists to answer drug related questions.

Self-Directed Learning and Professionalism: Take personal responsibility for attaining excellence in one's own ability to provide quality patient care. Demonstrate mature and professional attitudes, habits and behaviors.
- Identify behaviors characteristic of a professional
- Discuss opportunities to promote professionalism at your practice site as well as obstacles that may be encountered. Demonstrate professional responsibility by identifying areas for professional growth and development.
- Demonstrate intellectual curiosity related to current topics in hospital pharmacy practice.

Communication & Professionalism	
Communication	**Preceptor Sign Off w/initial and date**
Perform patient medication histories and/or discharge counseling for a minimum of 2 patients, utilizing the Patient History Interview Form **(page 25)** as an information guide. Then compose a simple SOAP note for each patient encounter, and submit to your preceptor for	
Prepare and deliver an informal (no AV), ten-minute presentation on a new drug or reading during a topic discussion or to the pharmacy staff. Preceptor determines appropriate venue and audience for presentation.	
Drug Information	
Clarify, research, and respond to a <u>minimum of 4</u> non-complicated (does not require primary literature review) drug information questions and provide an appropriate response to requestor.	
Complete drug information documentation form **(page 36)** for each response and discuss with preceptor what resources you found most helpful for each type of question.	
Learning and Professionalism	
Describe three ways that pharmacists obtain continuing education credit to maintain licensure in Florida.	
Assigned Reading: Read the CPD (continuing professional development) article (Am J Health-Syst Pharm 2004; 61:2069-71). Discuss with preceptor the advantages and challenges of adopting the CPD method of learning.	

Final Reflective Essay	
Please reflect on your recent IPPE. In your essay, please address the following: • Describe 3 aspects of hospital pharmacy you were not aware of prior to rotation and how learning about them changed your view of institutional pharmacy. • Identify 3 areas of hospital pharmacy you wish to strengthen your knowledge of or have more exposure to. • At this point in your career, what are your pharmacy career plans, and how, if at all, has your IPPE modified these plans?	Submit a hard copy with the rubric to preceptor by the last day of IPPE rotation. **(page 45)**

Patient History Interview Form #1

You may use this form as a **GUIDE** for collecting information during your patient/medication history or discharge counseling sessions. **It may not be necessary** to ask the patient about all sections of the form. This will depend on your particular encounter and pharmacy's role.

General Information			
Initials:		Primary Care Giver:	
Attending:		Service:	
Demographic and Social Information			
DOB:	Age:	Gender: □ Male □ Female	Ethnicity:
Height:	Weight (baseline):		Weight (current):
Religion Affiliation:		Occupation:	
Living Arrangement:			
Pregnant: □ Yes □ No	Due Date:		Breastfeeding: □ Yes □ No
Chief Complaint			
History of Present Illness:			
Past Medical History			
1.		6.	
2.		7.	
3.		8.	
4.		9.	
5.		10.	
Past Medical History			
1.		4.	
2.		5.	
3.		6.	
Family History			
Mother: Living □ Yes □ No	Age Deceased		Med Hx:
Father: Living □ Yes □ No	Age Deceased		Med Hx:
Other pertinent Family Hx:			
Immunization History:			
Immunization type:		Administration Date:	
Influenza			
Tetanus			
Pneumovax			
Others:			

Allergies (medication and food)/Adverse Reactions:	
Product Name:	Type and severity of reaction:
1.	
2.	
3.	
4.	
5.	

Current Inpatient Medications	
Medication Name, strength, route, directions	Start Date
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

Current Outpatient (Home) Prescription Medications	
Medication Name, strength, route, directions	Start Date
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
Preferred Pharmacy:	
Prescription Insurance Information:	□ No Insurance Information

Current Outpatient (Home) OTC medications, Herbal/Nutritional Products and Supplements	
Medication Name, strength, route, directions	Start Date
1.	
2.	
3.	
4.	
5.	
6.	
7.	

Assessment of Outpatient Medication Compliance
Who is responsible for medication administration for this patient? Does patient have any difficulty understanding or complying with medication instructions? Barriers to medication adherence? If yes, please explain:

Diet and Exercise	
Typical daily diet:	Type and frequency of exercise: Able to conduct Activities of Daily Living (ADL)? ☐ Yes ☐ No (explain)

Smoking, Alcohol, or Recreational Drug Use		

Smoking:
 	
☐   Never smoked
☐   Quit Smoking
 	
    Date:
    How long did the patient smoke?_____ years
    Smokes _____ packs/day
☐ Exposure to secondhand smoke _____ hours/day
	Alcohol:
	
	☐ No use
	☐ Social Use: _____ / week
	    Quantity:
	☐ Regular Use: _____ / week
	    Quantity:
		Recreational Drugs:
		
		☐ None
		☐ H/O (list agents, how long):
		
		☐ Current Use: (list agents, how long):

ADDITIONAL COMMENTS OR ASSESSMENTS:

Medication History Performed By: Date:

Preceptor Signature: Date:

Patient History Interview Form #2

You may use this form as a **GUIDE** for collecting information during your patient/medication history or discharge counseling sessions. **It may not be necessary** to ask the patient about all sections of the form. This will depend on your particular encounter and pharmacy's role.

General Information			
Initials:		Primary Care Giver:	
Attending:		Service:	
Demographic and Social Information			
DOB:	Age:	Gender: □ Male □ Female	Ethnicity:
Height:	Weight (baseline):		Weight (current):
Religion Affiliation:		Occupation:	
Living Arrangement:			
Pregnant: □ Yes □ No	Due Date:		Breastfeeding: □ Yes □ No
Chief Complaint			
History of Present Illness:			
Past Medical History			
6.		11.	
7.		12.	
8.		13.	
9.		14.	
10.		15.	
Past Medical History			
2.		7.	
4.		8.	
5.		9.	
Family History			
Mother: Living □ Yes □ No	Age Deceased		Med Hx:
Father: Living □ Yes □ No	Age Deceased		Med Hx:
Other pertinent Family Hx:			
Immunization History:			
Immunization type:		Administration Date:	
Influenza			
Tetanus			
Pneumovax			
Others:			

Allergies (medication and food)/Adverse Reactions:	
Product Name:	Type and severity of reaction:
6.	
7.	
8.	
9.	
10.	

Current Inpatient Medications	
Medication Name, strength, route, directions	Start Date
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	

Current Outpatient (Home) Prescription Medications	
Medication Name, strength, route, directions	Start Date
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
22.	
23.	
24.	
Preferred Pharmacy:	
Prescription Insurance Information:	□ No Insurance Information

Current Outpatient (Home) OTC medications, Herbal/Nutritional Products and Supplements	
Medication Name, strength, route, directions	Start Date
8.	
9.	
10.	
11.	
12.	
13.	
14.	

Assessment of Outpatient Medication Compliance

Who is responsible for medication administration for this patient? Does patient have any difficulty understanding or complying with medication instructions? Barriers to medication adherence? If yes, please explain:

Diet and Exercise

Typical daily diet:	Type and frequency of exercise:
	Able to conduct Activities of Daily Living (ADL)? ☐ Yes ☐ No (explain)

Smoking, Alcohol, or Recreational Drug Use

Smoking:	Alcohol:	Recreational Drugs:
☐ Never smoked ☐ Quit Smoking Date: How long did the patient smoke?_____ years Smokes _____ packs/day ☐ Exposure to secondhand smoke _____ hours/day	☐ No use ☐ Social Use: _____ / week Quantity: ☐ Regular Use: _____ / week Quantity:	☐ None ☐ H/O (list agents, how long): ☐ Current Use: (list agents, how long):

ADDITIONAL COMMENTS OR ASSESSMENTS:

Medication History Performed By: Date:

Preceptor Signature: Date:

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Drug Information Question Intake/Tracking Form #1

Date/Time:
Question Classification: ☐ Adverse Reaction/Contraindication   ☐ Drug Compatibility   ☐ Identification ☐ Availability   ☐ Drug Interaction   ☐ Pharmacy Practice ☐ Dose   ☐ Drug Therapy   ☐ Pharmacology
Question:
Background Information:
Requestor Name, title and/or profession (MD, nurse, pharmacist, technician, patient, etc), and contact information:
Date/Time Answer needed:
Answer to be given by… (e.g, phone/e-mail):
Answer:
Other pertinent information(required):
References (indicate in list whether reference was Helpful [H] or Unhelpful [U]):
Answer completed by (student name/date/time):
Answer given to requestor by (student name/date/time):

Drug Information Form Instructions

This Drug Information Question Intake/Tracking Form includes all fields that could be used in a formal drug information service setting. However, the form is only a template. Please feel free to modify it or to only use the applicable fields based on the question setting. For example, if a student is recording a question s/he was asked on rounds, and the student gave the answer immediately, the "date/time answer needed by" (and other fields) would not need to be completed.

Suggestions for using provided fields in the template:
- **Date/Time field** – for recording when question is received.
- **Question field** – for recording the question as it is posed. It should be clearly stated using complete sentences and proper grammar. When the form is used in a more formal drug information setting, the person taking the question may not be the person providing the response, so questions should always be written so that anyone can understand precisely what the question is.
- **Background Information field** – Record the information pertinent to the question. For example:
  - How did this question come about? Is it patient-specific? (If so, make sure you get patient-specific data.) Did someone ask them the question (i.e., is this first-hand, second-hand, etc.)? Write down any information obtained in discussing the request. This may help identify the "true" question or help decide when the question has been searched as thoroughly as possible. Don't be afraid to call back if you need more information or think of something you didn't ask. It is important to be as thorough as possible.
  - Ask the caller where they have looked thus far and if they have any data already.
  - Repeat the question as you understand it to the caller. This will help confirm you research and find the information they truly need.
- **Requestor Name, etc. field** – It is important to document the correct Title of the person asking the question. Be specific and differentiate between titles such as Pharm.D. & BS Pharm. or RN, LPN, & ARNP. This information will be used when returning calls, sending written responses, and to determine the level of detail of the response.
- **Date/Time Answer needed field** – When using this form in a more formal drug information setting, recording the date/time an answer is needed helps prioritize requests and makes sure they are answered within a period of time that is useful to the caller.
  - Asking the caller "How much time can you give us to research this question?" usually gives you ample time, as opposed to asking "When do you need a response?".
  - Regardless of whether or not a response is ready, the requestor must be contacted by the agreed upon deadline. If the response is not complete, let them know it is in process. This assures them they and their request have not been forgotten and that you are actively pursuing a response for them.
- **Answer to be given by field** – Ask the requestor if they prefer the answer to be relayed to them with a phone call or in writing, or both. (Be prepared to relay the answer both verbally and in writing, regardless of how this is initially requested.)
- **Answer field** – Give the answer in the first sentence, whether giving the answer in writing or verbally. You can expand the information and give more details after the first sentence. References used should be incorporated into the answer, especially if a written response is provided to the requestor.
- **Reference field** – Record all references used.
- **Completed by field** – List the name of the student who researches and compiles the answer.
- **Given by field** - If the student who relays the answer is different from the student who compiles the answer, record the name and date/time the answer is given.

Helpful Hints for Answering Drug Information Requests

- It is okay to start with a tertiary resource for background data. If you use a tertiary resource initially, try to review any primary literature that is cited. The data presented may not fully represent the entire primary reference. Many questions will require a literature search, even if you find the answer in a tertiary reference. When doing a literature search, be sure to review older data, if available. Just because it is older does not mean it is not relevant or useful.
- Both safety and efficacy data are important when reviewing a drug therapy. If your study/studies did not address one or the other, at least make that comment within your response. Also, if this is the case, consider adding common side effects/uses or populations where the drug should not be used.

The written response:
- List all references consulted, designating them as being Helpful or Unhelpful (whether you used them in your response or not).
- Always answer the question in the first sentence of the written response.
- In addition to presenting the data found, summarize your findings, including a final recommendation for whether or not the data supports the use of the drug in this manner. Also include any precautions or safety data that may be pertinent.
- If you are providing a formal written response, it should be generated on official letterhead and signed by the student and the preceptor who approved the response. All of the references should be included as well as contact information for the preceptor if there are any follow up questions.
- If a written response is provided, a disclaimer statement is often used, such as, "We hope you find this information useful. This information should be interpreted using your clinical judgment. The answer provided is based on the specific details of the initial question. This information provided is based on the information available at the time, it should be used to supplement your clinical knowledge."

The verbal response:
- The verbal response should be a condensed and succinct version of the written response. Simply reading the written response is not appropriate.
- The response should be complete such that the person asking the question could treat a patient at that moment with the information you provide. Dosage information and/or a brief summary of the efficacy/safety data should be provided.

Date/Time:		
Question Classification:		
☐ Adverse Reaction/Contraindication	☐ Drug Compatibility	☐ Identification
☐ Availability	☐ Drug Interaction	☐ Pharmacy Practice
☐ Dose	☐ Drug Therapy	☐ Pharmacology

Question:
Background Information:
Requestor Name, title and/or profession (MD, nurse, pharmacist, technician, patient, etc), and contact information:
Date/Time Answer needed:
Answer to be given by… (e.g, phone/e-mail):
Answer:
Other pertinent information(required):
References (indicate in list whether reference was Helpful [H] or Unhelpful [U]):
Answer completed by (student name/date/time):
Answer given to requestor by (student name/date/time):

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Drug Information Question Intake/Tracking Form #3

Date/Time:		
Question Classification: ☐ Adverse Reaction/Contraindication ☐ Availability ☐ Dose	☐ Drug Compatibility ☐ Drug Interaction ☐ Drug Therapy	☐ Identification ☐ Pharmacy Practice ☐ Pharmacology

Question:
Background Information:
Requestor Name, title and/or profession (MD, nurse, pharmacist, technician, patient, etc), and contact information:
Date/Time Answer needed:
Answer to be given by… (e.g, phone/e-mail):
Answer:
Other pertinent information(required):
References (indicate in list whether reference was Helpful [H] or Unhelpful [U]):
Answer completed by (student name/date/time):
Answer given to requestor by (student name/date/time):

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Office of Experimental Programs
UNIVERSITY *of* FLORIDA

Date/Time:		
Question Classification: ☐ Adverse Reaction/Contraindication ☐ Availability ☐ Dose	☐ Drug Compatibility ☐ Drug Interaction ☐ Drug Therapy	☐ Identification ☐ Pharmacy Practice ☐ Pharmacology
Question:		
Background Information:		
Requestor Name, title and/or profession (MD, nurse, pharmacist, technician, patient, etc), and contact information:		
Date/Time Answer needed:		
Answer to be given by… (e.g, phone/e-mail):		
Answer:		
Other pertinent information(required):		
References (indicate in list whether reference was Helpful [H] or Unhelpful [U]):		
Answer completed by (student name/date/time):		
Answer given to requestor by (student name/date/time):		

Summary of Assigned Readings & Topic Discussions

***All** readings are required for students. <mark>It is the responsibility of the preceptor to choose a minimum of **three** required readings to use as subject material for topic discussions throughout the rotation month</mark>.

Please note all articles are available on the Course IPPE Website in the event the links do not work.

	Workbook Section	Assigned Reading	Activity Description
1	Medication Dispensing	*Adverse Drug Reactions: Types and Treatment Options.* http://www.aafp.org/afp/2003/1101/p1781.pdf (Am Fam Physician 2003;68:1781-90)	With a pharmacist, identify, investigate and document an adverse drug reaction (ADR) or a medication error, including reviewing the patient chart.
2	Medication Dispensing	*Electronic Prescribing* pp. 30-38 in Hospital Pharmacy Director's Forum. (Hospital Pharmacy 2009;44(3):257-23)	Discuss computerized physician order entry with your preceptor. If available at your institution, observe computerized physician order entry for medications at the point of care.
3	Medication Dispensing	*Making Inpatient Medication Reconciliation Patient Centered, Clinically Relevant, and Implementable: A Consensus Statement on Key Principles and Necessary Steps.* http://onlinelibrary.wiley.com/doi/10.1002/jhm.8 49/pdf (Journal of Hospital Medicine 2010;5:477–485)	Participate in the medication reconciliation process with appropriate hospital personnel.
4	Medication Dispensing	*Simple Strategies to Avoid Medication Errors* http://www.aafp.org/fpm/2007/0200/p41.pdf	With a pharmacist, identify, investigate, and document an adverse drug reaction (ADR) or a medication error, including reviewing the patient chart.
5	Medication Dispensing (IV)	*The ASHP Discussion Guide for Compounding Sterile Preparations* www.ashp.org/s_ashp/docs/files/HACC_797guide.pdf	Review the summary and implementation of USP Chapter <797> in preparation for your time making IVs during your IPPE.
6	Pharmacy Administration	*Developing a Medication Patient Safety Program, Part 1 and Part 2*, pp. 199-215 in Hospital Pharmacy Director's Forum.	Discuss with the pharmacy director or designee how medication errors and ADRs are managed. Review

		(Hospital Pharmacy 2007;42(2):149-156 and Hospital Pharmacy 2007;42(3):249-254)	institution's policies and procedures, as appropriate.
7	Pharmacy Administration	*Human Resources Management for the Pharmacy Director* pages 109-116 in Hospital Pharmacy Director's Forum. (Hospital Pharmacy 2006;41(12):1206-1214)	Observe and discuss human resources activities that occur within the pharmacy department (scheduling, disciplinary actions, hiring processes, etc.) with the pharmacy director or a designee. Review institution's policies and procedures, as appropriate.
8	Pharmacy Administration	*Industry Relationships and the Pharmacy Director: Striking the Right Balance*, pp. 190-197 in Hospital Pharmacy Director's Forum. (Hospital Pharmacy 2009;44(12):1136-41,48)	Discuss with pharmacy staff the role of the pharmaceutical sales representative in the institution. Review institution's policies and procedures, as appropriate.
9	Pharmacy Administration	Review ASHP's website on Formulary Management http://www.ashp.org/Import/PRACTICEANDP OLICY/PolicyPositionsGuidelinesBestPractices /BrowsebyTopic/FormularyManagement.aspx and read their guideline titled: *Pharmacy and Therapeutics Committee and the Formulary System* (AJHP 2008; 65: 1272-1283)	Discuss with the pharmacy director or designee the management of the institution's medication formulary. Review institution's policies and procedures, as appropriate.
10	Pharmacy Administration	Review ASHP's website on Drug Shortages http://www.ashp.org/shortages?WT.ac=hp% 5FPopLinks%5FDrug%5FShortages and read their posted guidelines on *Managing Drug Shortages* (AJHP 2009; 66:1399-1406)	Discuss the hospital's procedure for managing drug shortages with a departmental designee. Review institution's policies and procedures, as appropriate.
11	Communication & Professionalism	Read the CPD (continuing professional development) article. (Am J Health-Syst Pharm 2004;61:2069-76)	Discuss with preceptor the advantages and challenges of adopting the CPD method of learning.

PharmPortfolio™ Requirements

Workbook Section		Essay Prompt	Submission Method
1	Professionalism and Communication	**Final Reflective Essay** Please reflect on your recent IPPE. In your essay, please address the following: 1. Describe 3 aspects of hospital pharmacy that you were not aware of prior to rotation and how learning about them changed your view of institutional pharmacy. 2. Identify 3 areas of hospital pharmacy that you wish to strengthen your knowledge of or have more exposure to. 3. At this point in your career, what are your pharmacy career plans, and how, if at all, has your IPPE modified these plans?	Submit a hard copy with the rubric to your preceptor by the last day of IPPE rotation.

Reflective Essay Requirements and Formatting Guidelines

Formatting:
- Reflection to be written in formal essay format with introduction, body, and conclusion.
- Introductory paragraph should include the name of your H-IPPE site, location of the site, and name of your primary preceptor.
- Minimum of 1000 words but not more than 5 pages in length
- Double spaced
- 11 point font
- One inch margins
- Student name and date on all pages in upper right hand corner
- Essay title bolded and centered at top of first page

Content:
- Essay should directly and candidly address the stated prompt
- Provide examples to back up your opinions and reflections
- Essay should be reflective and evaluative in nature
- Writing Skills:
- Ideas should be well developed, clearly and concisely expressed, and persuasive
- Essay should have a clear introduction, main body, and conclusion
- Writing should conform to standard conventions for written expression and be free from spelling, grammar, syntax, and typographical errors
- Essay must be typed, follow above guidelines, and be submitted by the stated deadline

Assessment:
Submit a hard copy of assessment rubric and essay to preceptor for review and comment with preceptor sign off on checklist. The preceptor does not assign a grade for the essays but instead reviews work and provides constructive feedback.

Rubric Used to Assess Reflective Essay

To **pass** this course, the student must achieve at least **"Growing Evidence"** in each category. A rating of "Unsatisfactory" in any category will results in a **failing grade**. Note that evidence accumulates across the four years in the Pharm.D. Curriculum. Therefore, ratings of "Significant Evidence" and "Distinguished" require achievements during future semesters.

The Preceptor reflects on meetings with the student, feedback from pharmacy team members, other communications, and the student's final reflective essay to complete the following assessment:

Self-Awareness & Personal Development
- ☐ **UNSATISFACTORY:** The student exhibited at least one of the following: 1) not attentive during meeting discussions, 2) exhibited a lack of interest in meeting discussions, and and/or 3) not motivated to achieve personal growth/improvement.
- ☐ **GROWING EVIDENCE:** The student approached meetings with interest, motivation, and the desire to learn and improve. However, the student needs to grow in taking full responsibility for personal growth (e.g., establishing personal goals/objectives during each meeting for growing/improving; accomplishing personal goals/objectives established during a prior meeting).
- ☐ **SIGNIFICANT EVIDENCE:** The student is taking full responsibility for personal growth (e.g., establishing personal objectives during each meeting for growing/improving; accomplishing the personal objectives established during a prior meeting; coping with stress). (Note: This level of achievement is only evident after multiple meetings.)
- ☐ **DISTINGUISHED:** In addition to meeting the criteria for "Excellent," the student strives for accuracy and precision and exhibits self-esteem and confidence in accomplishing personal growth. (Note: This level of achievement is only evident after multiple meetings.)

Professional Behaviors
- ☐ **UNSATISFACTORY:** During communications and/or meetings, does not demonstrate a commitment to excellence (e.g., is not prepared for the meeting, lacks initiative, lacks accountability for actions.)
- ☐ **GROWING EVIDENCE:** Demonstrates a commitment to excellence as evidenced by being prepared, exhibiting initiative, and being accountable during meetings and other communications.
- ☐ **SIGNIFICANT EVIDENCE:** In addition to a commitment to excellence as described in the "Meets Expectations" criteria, the student exhibits altruism, integrity, trustworthiness, and flexibility.
- ☐ **DISTINGUISHED:** In addition to meeting the criteria described for "SIGNIFICANT EVIDENCE," the student demonstrates a commitment to continual improvement of the profession as evidenced by engagement in professional organization activities. (Documented in the CV/portfolio and/or discussed in meetings.)

Quality of Reflection
- ☐ **UNSATISFACTORY:** At least one element is missing from the written reflection and/or were not professionally written.
- ☐ **GROWING EVIDENCE:** Written reflection is well organized and professionally written (e.g., free of spelling and grammar errors). The reflection provides an analysis or understanding of the experience; but, this needs improvement. The student has been guided to provide an analysis or understanding of the experiences in future reflections.

- ☐ **SIGNIFICANT EVIDENCE:** The written reflection shows the student consistently analyzed their experience/the situation they encountered, or challenged their own thinking.
- ☐ **DISTINGUISHED:** The student always analyzed their experience/situation encountered. In addition, the student acknowledged his/her emotions (i.e., what was discomforting, changes in confidence or realization of new insights/understanding

Student and Preceptor Workbook Evaluation Form

*Each student and preceptor will receive a copy of this assessment to be completed in **PharmAcademic™***

We need your help to evaluate the workbook materials. Please point out any areas which need to be modified, changed or improved.

5 strongly agree	4 agree	3 neutral	2 disagree	1 strongly disagree	0 not observed

	Response					
	5	4	3	2	1	0
The layout of material was easy to follow.						
Workbook exercises, cases and questions were applicable and relevant to the hospital introductory practice experience.						
Questions in the workbook were clearly stated.						
The workbook was useful in helping to achieve the requirements of the rotation.						

Please offer suggestions to help improve the workbook for next year; please list specific pages where applicable.

Please tell us which topics should be added or deleted from the workbook for next year.

Please tell us what you liked most about the workbook.

Thank you for your time. Your comments are appreciated.

Hospital IPPE
STUDENT FINAL EVALUATION
*To be completed and submitted in **PharmAcademic™** by the Preceptor*

Please complete this evaluation when the student has completed their experience with you. **Please confirm that the student completed a minimum of 160 hours of experience.**

- ☐ 160 hours confirmed

- ☐ No the student did not (Please provide an explanation and plans, if any, for the student to make up the hours)

Comments

Student Performance Evaluation

Please select the appropriate performance level for each item listed below. The performance levels are defined as:

- **Proficient:** Performs at a level consistent with expectations.
- **Developing:** Displays developing habits, skills, abilities, and/or knowledge but may require significant improvement. Performance level may be sporadic and or slightly below expectations at this point.
- **Deficient:** Performs at a level consistently below expectations. Displays developing habits, skills, abilities, and/or knowledge but requires significant improvement.
- **Opportunity unavailable:** Not applicable or no opportunity to evaluate during this rotation.

	Proficient	Developing	Deficient	Opportunity unavailable
Professional Work Habits				
The student is consistently punctual, reliable, and dependable.				
The student is professional, mature, and ethical in attitude, and behavior.				
The student consistently exhibits a professional appearance.				
The student is self-motivated and eager to learn.				

	Proficient	Developing	Deficient	Opportunity unavailable
The student appropriately prioritizes and balances assigned tasks.				
The student accepts constructive criticism and appropriately modifies behavior.				
The student follows up on questions, tasks, and assignments in an accurate and timely manner.				
The student collaborates and interacts effectively with the staff and/or employees at the site.				
The student asks appropriate questions of preceptor and other health care providers.				
Communication				
The student communicates effectively with other healthcare professionals.				
The student communicates effectively with patients.				
Hospital Pharmacy Systems				
The student is able to describe the medication use process, including how pharmacy impacts the safety of storage, prescribing, transcription, dispensing, administration and monitoring steps.				
The student is able to describe the differences between horizontal and vertical laminar flow hoods, quality control procedures and key aspects of aseptic technique when preparing CSPs (Compounded Sterile Preparations).				
The student is able to describe the basic drug procurement process including drug selection, inventory management, backorders, recalls, drug waste, handling of drug shortages and their relationship to safe, effective patient care.				
The student is able to outline the basic functionality of commonly used automated systems related to medication use (automated dispensing cabinets, computerized physician				

	Proficient	Developing	Deficient	Opportunity unavailable
order entry, bar code medication administration, programmable infusion devices, robotics), understanding their appropriate and safe use as well as unintended consequences.				
The student is able to perform activities within a typical hospital drug distribution system, including order receipt, evaluation and review.				
The student is able to describe the appropriate roles of pharmacy technicians, pharmacists and pharmacy leadership within a typical hospital drug distribution system.				
The student is able to describe the integration and interface of clinical and distributive functions, including the synergy that translates into safe and effective medication therapy.				
The student is able to interpret, prepare (including performing necessary calculations), fill, and document medication orders accurately.				
The student is able to evaluate, using appropriate calculations, the appropriateness of medication dosing using basic dosing principles, e.g. patient weight, age, renal and liver function.				
The student is able to use appropriate references to answer questions asked by health professionals.				
Medication Safety				
The student is able to summarize current National Patient Safety Goals and articulate those goals that relate to medication use, pharmaceutical care, and pharmacy's role in each.				
The student is able to describe how organizations such as the Joint Commission strive to assure quality of healthcare through the accreditation process, giving examples of				

	Proficient	Developing	Deficient	Opportunity unavailable
relevant standards related to safe and appropriate medication use.				
The student is able to describe those national standards, guidelines, best practices and established principles and process related to quality and safe medication use (e.g. storage of look-alike/sound-alike medications, high alert medications, storage of concentrated potassium in patient care areas, dangerous abbreviations, leading decimal points and trailing zeros, quality measure related to medications).				
The student is able to describe the impact of pharmacist involvement on medication safety and quality.				

Please list at least three specific behaviors, skills or knowledge areas needing improvement which future preceptors should focus on during subsequent rotations.

Please list at least three excellent behaviors, skills or knowledge areas the student displayed during the rotation to be reinforced during subsequent rotations.

At this point, the student is _____ the level I would expect.

- ☐ At
- ☐ Above
- ☐ Below

After reviewing this student's overall performance, it is my recommendation that the student:

- ☐ Pass
- ☐ Not Pass