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# Advance Pharmacy Practice Experience Objectives and Evaluation 2025 - 2026

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## **Introduction**

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The college of Pharmacy offers a one-year Advance Pharmacy Practice Experience (APPE) that occur in the final year of the curriculum.

The APPE courses are structured with outcome expectations designed to reflect the attainment of practice related competencies as set forth by the international standards (i.e. Accreditation Council for Pharmacy Education “ACPE”). It consists of nine rotations (36 credit hours) that shall be on a continuous and uninterrupted basis. Each rotation is five weeks long (equals to 4 credit hours which included in the GPA) to different training sites including hospitals, drug companies and community pharmacies.

The completion of the courses during the Internship year is a major requirement for the completion of the Pharm D degree in college of Pharmacy where the many hours of study, discussion, and reflection in student academic core courses are finally put into practice.

The APPE is designed to provide excellent opportunities for students to put into practice much of the knowledge and skills acquired during their studies and to gain firsthand knowledge of work environment and possible future employment.



## Objectives of the internship year

- Training students to work professionally and learn work ethics.
- Introduce students to the standards of pharmaceutical care and practice.
- Developing students' clinical skills.
- Training to cooperate with the medical team in designing an integrated treatment plan to ensure the highest standards of quality and safety for the patient.
- Developing the student's professional and personal skills that support her competence in communicating with patients and the team.
- Introducing the student to all areas of pharmaceutical work.
- Gain the basic research skills.

## • Attendance/absence policy and regulation

The pharmacy intern is expected to observe a policy of consistent and timely attendance from 8:00 a.m. to 4:00 p.m. The intern should follow the procedure for requesting a leave as the following:

Annual leave	10 days (Including emergency leaves)	should not exceed (20%) of the rotation which is 5 days.
Educational leave	Three days	It has to be proceeded by an official request to the training Administration four weeks in advance for approval.
Maternity leave	Two weeks	This leave has to be compensated before the end of the year
Bereavement leave	Three days leave- death of first-degree relatives One day - death of second-degree relatives.	
Sick leave	The intern must inform immediately her assigned preceptor and the internship Administration	The sick leave report should be obtained from a governmental hospital as possible.
Absences	Unexcused absence may cause a failure in the rotation	
Holidays	The intern should refer to training site and follow their policy in relation to these holidays.	

Exams and training courses	No special leave for exams (e.g., Saudi Pharmacist Licensure Examination (SPLE)) and training courses.	
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1. The intern should first discuss her intention to request a leave with her assigned preceptor and get his approval.
2. The intern should fill the absence form and get her preceptor's signature in the form one week in advance.
3. The absence form needs to be sent to the internship unit for final approval.

## Advance Pharmacy Practice Experience Calendar

Internship year (2025-2026)		
Rotation number	Start	End
Rotation 1	22-6-2025	24-7-2025
Rotation 2	27-7-2025	28-8-2025
Rotation 3	31-8-2025	2-10-2025
Rotation 4	5-10-2025	6-11-2025
Rotation 5	9-11-2025	11-12-2025
Rotation 6	14-12-2025	15-1-2026
Rotation 7	18-1-2026	19-2-2026
Rotation 8	23-2-2026	9-4-2026
Official Vacation from 12-3-2026 24-3-2026		
Rotation 9	12-4-2026	14-5-2026



## **Advanced Pharmacy Practice Experience (APPE)**

### **In-patient pharmacy**

#### **Goals and objectives**

The Advanced Pharmacy Practice Experience (APPE) in-patient pharmacy rotation aims to allow pharmacy interns to describe the concept, procedure, and policy of the department's distribution systems including floor stock, unit dose, narcotic control in the inpatient area, and Intravenous preparation (IV).

The in-patient rotation allows pharmacy interns to achieve the following:

#### General rotation goals.

1. Describe the following for all medication administered to assigned patients:
  - a. Indications for use and appropriateness of therapy
  - b. Dosage and schedule
  - c. Routes of administration and precautions
  - d. Mechanism(s) of action
  - e. Alternative treatment available
  - f. Onset and duration of action
  - g. Drug-drug interactions, drug-lab interactions
  - h. Pharmacokinetics and biopharmaceutics
  - i. Influence of disease state on drug absorption
  - j. Therapeutic and toxic levels [if available]
  - k. Adverse effects
  - l. Appropriate patient information
  - m. Formulation and compatibilities [I.V. admixtures]
2. Demonstrate an understanding of workflow, policies and procedures related to in-patient pharmacy department.
3. Participate in the process of preparing, labeling, dispensing and counseling for inpatient and discharged patients.
4. Utilize appropriate resources to provide drug information and assess patient
5. Demonstrate the ability to prioritize medication orders (i.e. STAT vs routine orders).
6. Identify strategies to reduce medication errors and participate in their implementation (e.g. high alert and look alike sound alike (LASA) medication).
7. Recognize medication storage regulations and how to access information related to appropriate medication storage.
8. Acquire skill in managing non-formulary, shortage and withdrawn medication.
9. Demonstrate an understanding of crash cart: medication list, layout, log sheet and pharmacist role.
10. Outline the hospital medication distribution system
11. Practice prepackaging, compounding, calculation and extemporaneous preparation under supervision [if available].
12. Demonstrate cultural competency in caring for patients and in interacting with other healthcare providers

13. Demonstrate professional attitudes and behaviours that characterize a professional pharmacist.

**C. IV goals (if applicable).**

1. Demonstrate an understanding of the USP 797 regulations.
2. Prepare IV medication under supervision.
3. Utilize aseptic techniques related to IV compounding.
4. Calculate the quantity of active ingredient needed for each preparation.
5. Identify the process of checking, labeling and storage of IV component.
6. Utilize proper disposal techniques of Hazardous Material/Waste.

**D. Narcotic goals.**

1. Summaries the laws and regulations of narcotic and controlled medication in Saudi Arabia.
2. Recognize storage of narcotic and control medication regulations.
3. Identify the process of prescribing narcotics and control drugs by nursing units, inpatient and outpatient.
4. Recognize the process of disposing of narcotic and control drugs.
5. Explain the process of dealing with expired and returned narcotics.
6. Practice dealing with incidents related to narcotics and control drugs.

**Intern Responsibilities:**

- 1- Attend on time.
- 2- Complete all tasks assigned by the preceptor.
- 3- Provide at least one activity (e.g., in-service, presentation) to the pharmacy or patient care team.
- 4- Demonstrate the ability to think rationally & logically.
- 5- Display professional comportment: appearance, attitude and behavior.
- 6- React positively to Constructive Criticism.

**Preceptor Responsibilities:**

- 1- Orient the student to the practice site, schedule, break, evaluation method and overall responsibilities.
- 2- Monitor student progress to ensure stated objectives are adequately met.
- 3- Provide mid and final evaluation.

**Site Responsibilities.:**

1. Orient the student to the practice site including hospital system, policy and procedure, direction, parking, etc.
1. Provide a student ID to be able to enter and practice at the site.
2. Communicate with the hospital team/service to start the training.
3. Provide appropriate communication with PNU training and internship Administration whenever needed

## **Advanced Pharmacy Practice Experience (APPE)**

### **Out-patient rotation**

#### **Goals and objectives**

The goal of this five weeks rotation is to provide pharmacy interns with the opportunity to experience clinical services and patient care initiatives within the hospital and community pharmacy settings.

The out-patient rotation allows pharmacy intern to:

1. Describe the following for all medication administered to assigned patients:
  - a. Indications for use and appropriateness of therapy.
  - b. Dosage and schedule.
  - c. Routes of administration and precautions.
  - d. Mechanism(s) of action.
  - e. Alternative treatment available.
  - f. Onset and duration of action.
  - g. Drug-drug interactions, drug-lab interactions.
  - h. Pharmacokinetics and biopharmaceutics.
  - i. Influence of disease state on drug absorption.
  - j. Therapeutic and toxic levels [if available].
  - k. Adverse effects.
  - l. Appropriate patient information.
2. Demonstrate an understanding of workflow, policies and procedures related to out-patient pharmacy department.
3. Participate in the process of preparing, labeling, dispensing and counseling for outpatient.
4. Demonstrate an understanding of a refill medication.
5. Identify strategies to reduce medication errors and participate in their implementation (e.g. high alert and look alike sound alike (LASA) medication).
6. Recognize medication storage regulations and how to access information related to appropriate medication storage.
7. Inspect and make use of auxiliary labels and expiry dates of the medications.
8. Acquire skill in managing non-formulary, shortage and withdrawn medication.
9. Calculate an appropriate dose, syringe, tables...etc.,
10. Utilize appropriate resources to provide drug information and assess patient.
11. Demonstrate cultural competency in caring for patients and in interacting with other healthcare providers.
12. Demonstrate appropriate team behaviors and professionalism.
13. Promote self-directed learning through a self-initiated, proactive, evidenced based clinical pharmacy practice.
14. Conduct topic discussion based on rotation requirement and student interest.



**Student Responsibilities**

1. Attend on time.
2. Complete all assigned tasks by the preceptor.
3. Provide at least 1 activity (e.g., in-service, presentation) to the pharmacy or patient care team.
4. Demonstrate the ability to think rationally & logically.
5. Display professional comportment: appearance, attitude and behavior.
6. React positively to constructive criticism.

**Preceptor Responsibilities**

1. Orient the student to the practice site, schedule, break, evaluation method and overall responsibilities.
2. Monitor student progress to ensure stated objectives are adequately met.
3. Provide mid and final evaluation.

**Site Responsibilities**

1. Orient the student to the practice site including pharmacy system, policy and procedure, direction, parking, etc.
2. Provide a student ID to be able to enter and practice at the site.
3. Provide appropriate communication with PNU training and internship Administration whenever needed

## **Direct Patient Care-Clinical Rotation**

### **Goals and objectives**

The Advanced Pharmacy Practice Experience (APPE) clinical rotation provides practical experience for clinical pharmacy interns. The experience they get familiarizes them with the role of the clinical pharmacist in the hospital setting. They also obtain expertise in working with an interdisciplinary team as well as optimizing pharmacotherapeutic management. Further, APPE enables interns to gain knowledge of improving patient care and safety. Pharmacy students who participate in this rotation acquire knowledge, skills, and abilities beneficial to their professional careers.

**Direct patient care** rotation allows pharmacy interns to:

1. Describe the state of common diseases in the clinical area and their pathophysiology.
2. Perform clinical presentation, diagnosis, and provide an evidence-based pharmacotherapy plan.
3. Collect patient information, including medication history, home medication, lab, and allergy, among others.
4. Recommend changes to the drug therapy regimen through monitoring and assessing/reassessing patient information.
5. Identify adverse drug reactions and interactions such as drug-drug, drug-food, drug-disease, or drug-lab.
6. Develop collaborative professional relationships and demonstrate excellent communication skills when providing verbal information, presentations, and recommendations to the medical team.
7. Effectively communicate the drug treatment plan to the patient with the appropriate precautions and expectations.
8. Conduct discussions on topics based on the requirement of rotation and student interests.
9. Promote self-directed learning through a self-initiated, proactive, and evidenced-based clinical pharmacy practice.
10. Demonstrate cultural competency in caring for patients and in interacting with other healthcare providers that are encountered in a primary/ambulatory care setting.
11. Demonstrate professional attitudes and behaviours that characterize a professional pharmacist.

### **Intern Responsibilities:**

1. Attend and participate in rounds.
2. Work up patients through patient care process.
3. Present new patient(s), recommendations, and care plan to preceptor.
4. Use monitoring plan to follow-up daily with existing patients.
5. Present to preceptor any important medication therapy related updates on existing patients.
6. Conduct medication review(s), reconciliation, and patient education (as required).

7. Answer relevant drug information questions as requested by patients, inter-professional team.
8. Display professional comportment: appearance, attitude, and behavior.
9. Provide at least one activity (e.g., in-service, presentation) to the pharmacy or patient-care team.
10. Document all pharmacy interventions and all ADRs.

### **Preceptor Responsibilities:**

1. Orient the student to the practice site, schedules (days and hours), break, evaluation methods, and overall responsibilities.
2. Assign patients to the student for work up.
3. Discuss medication-related interventions and recommendations for approval.
4. Monitor student progress to ensure stated objectives are adequately addressed and met.
5. Guide and answer student questions and share knowledge and skills with the student.
6. Maintain student confidentiality.
7. Provide mid evaluation at the beginning of third week and final evaluation at the end of rotation.

### **Site Responsibilities:**

4. Orient the student to the practice site including hospital system, policy and procedure, direction, parking, etc.
5. Provide an intern ID to be able to enter and practice at the site.
6. Provide appropriate communication with PNU training and internship Administration whenever needed.

## **Advanced Pharmacy Practice Experience (APPE)**

### **Direct Patient Care: Transition of Care Rotation (TOC)-Clinical Rotation**

#### **Goals and objectives**

The Advanced Pharmacy Practice Experience (APPE) Transition of Care Rotation (TOC) rotation provides practical experience for clinical pharmacy interns. The experience they get familiarizes them with the role of the clinical pharmacist in the hospital - inpatient setting. They also obtain expertise in optimizing pharmacotherapeutic management. Further, APPE enables interns to gain knowledge of improving patient care and safety. Pharmacy interns who participate in this rotation acquire knowledge, skills, and abilities beneficial to their professional careers.

**Direct patient care** rotation allows pharmacy interns to:

12. Describe the state of common diseases in the clinical area and their pathophysiology.
13. Perform clinical presentation, diagnosis, and provide an evidence-based pharmacotherapy plan.
14. Collect patient information, including medication history, home medication, lab, and allergy, among others.
15. Recommend changes to the drug therapy regimen through monitoring and assessing/reassessing patient information.
16. Identify adverse drug reactions and interactions such as drug-drug, drug-food, drug-disease, or drug-lab.
17. Develop collaborative professional relationships and demonstrate excellent communication skills when providing verbal information, presentations, and recommendations to the medical team.
18. Effectively communicate the drug treatment plan to the patient with the appropriate precautions and expectations.
19. Conduct discussions on topics based on the requirement of rotation and student interests.
20. Promote self-directed learning through a self-initiated, proactive, and evidenced-based clinical pharmacy practice.
21. Demonstrate professional attitudes and behaviours that characterize a professional pharmacist.

#### **Intern Responsibilities:**

11. Attend and participate in rounds.
12. Work up patients through patient care process.
13. Present new patient(s), recommendations, and care plan to preceptor.
14. Use monitoring plan to follow-up daily with existing patients.
15. Present to preceptor any important medication therapy related updates on existing patients.
16. Conduct medication review(s), reconciliation, and patient education (as required).
17. Answer relevant drug information questions as requested by patients, inter-professional team.
18. Display professional comportment: appearance, attitude, and behavior.
19. Provide at least one activity (e.g., in-service, presentation) to the pharmacy or patient-care team.

20. Document all pharmacy interventions and all ADRs.

**Preceptor Responsibilities:**

8. Orient the student to the practice site, schedules (days and hours), break, evaluation methods, and overall responsibilities.
9. Assign patients to the student for work up.
10. Discuss medication-related interventions and recommendations for approval.
11. Monitor student progress to ensure stated objectives are adequately addressed and met.
12. Guide and answer student questions and share knowledge and skills with the student.
13. Maintain student confidentiality.
14. Provide mid evaluation at the beginning of third week and final evaluation at the end of rotation.

**Site Responsibilities:**

7. Orient the student to the practice site including hospital system, policy and procedure, direction, parking, etc.
8. Provide an intern ID to be able to enter and practice at the site.
9. Provide appropriate communication with PNU training and internship Administration whenever needed.

## **Advanced Pharmacy Practice Experience (APPE) Total Parenteral Nutrition Rotation**

### **Goals and objectives:**

The Advanced Pharmacy Practice Experience (APPE) Total Parenteral Nutrition rotation aims to allow pharmacy interns to familiarize with nutrition support, develop skills in patient assessment, patient monitoring, parenteral nutrition formulation, and formula adjustment.

The TPN rotation allows pharmacy interns to achieve the following:

- 1- Understand TPN components appropriateness for each patient.
- 2- Able to implement standards for preparing TPN.
- 3- Critically use available information to ensure safe and effective TPN formulation.

### **Intern Responsibilities:**

1. Attend on time.
2. Complete all assigned tasks by the preceptor.
3. Provide at least one activity (e.g., in-service, presentation) to the pharmacy or patient care team.
4. Be Initiative and show ability to think rationally & logically.
5. Display professional comportment: appearance, attitude and behavior.
6. React Positively to Constructive Criticism

### **Preceptor Responsibilities:**

1. Orient the student to the practice site, schedule, break, evaluation method and overall responsibilities.
2. Monitor student progress to ensure stated objectives are adequately met.
3. Provide mid and final evaluation.

### **Site Responsibilities:**

2. Orient the student to the practice site including hospital system, policy and procedure, direction, parking, etc.
10. Provide a student ID to be able to enter and practice at the site.
11. Communicate with the hospital team/service to start the training.
12. Provide appropriate communication with PNU training and internship Administration whenever needed

## **Advanced Pharmacy Practice Experience (APPE) Intravenous Preparation Rotation**

### **Goals and objectives:**

The Advanced Pharmacy Practice Experience (APPE) intravenous preparation rotation aims to allow pharmacy interns to describe the concept, procedure, and policy of intravenous preparation area (IV).

The IV rotation allows pharmacy interns to achieve the following:

- 1- Understand policy and procedure related to the intravenous preparation area (Knowledge).
- 2- Able to implement standards for preparing compounded sterile medications (USP 797).  
(skill)
- 3- Critically use available information to ensure safe and effective IV medication use.  
(cognitive)

### **Intern Responsibilities:**

7. Attend on time.
8. Complete all assigned tasks by the preceptor.
9. Provide at least one activity (e.g., in-service, presentation) to the pharmacy or patient care team.
10. Be Initiative and show ability to think rationally & logically.
11. Display professional comportment: appearance, attitude and behavior.
12. React positively to constructive criticism

### **Preceptor Responsibilities:**

4. Orient the student to the practice site, schedule, break, evaluation method and overall responsibilities.
5. Monitor student progress to ensure stated objectives are adequately met.
6. Provide mid and final evaluation.

### **Site Responsibilities:**

3. Orient the student to the practice site including hospital system, policy and procedure, direction, parking, etc.
13. Provide a student ID to be able to enter and practice at the site.
14. Communicate with the hospital team/service to start the training.
15. Provide appropriate communication with PNU training and internship Administration whenever needed

## **Advanced Pharmacy Practice Experience (APPE) Drug Information Rotation**

### **Goals and objectives**

The goal of Advanced Pharmacy Practice Experience (APPE) is to provide experience and understand the scope of Drug Information (DI) services, as well as develop skills to provide drug information, evidence-based practice, and medication use policy services.

The drug information rotation allows pharmacy students to:

- 1- Understand the structure and workflow of a Drug Information Service.
- 2- Be able to analyze the most appropriate drug information resources including primary, secondary, and tertiary sources for answering questions related to clinical practice.
- 3- Be aware of the similarities and differences of secondary and tertiary information resources for specific types of drug or medical information.
- 4- Identify the appropriate search strategy for a given DI question that will result in high-quality literature retrieval.
- 5- Develop strategies for accessing information pertaining to adverse drug reactions and pharmacovigilance.
- 6- Identify role of DI pharmacist in managing drug shortages, including identifying alternative treatments, developing protocol for restrictive use, and addressing formulary concerns.
- 7- Identify the role of drug information pharmacist in participating in pharmacy and therapeutic committee
- 8- Learn about the excellent oral and written communication skills

### **Intern Responsibilities:**

- 7- Attend on time.
- 8- Complete all assigned tasks by the preceptor.
- 9- Provide at least one activity (e.g., in-service, presentation) to the pharmacy or patient care team.
- 10- Display professional comportment: appearance, attitude and behavior.

### **Preceptor Responsibilities:**

- 4- Orient the student to the practice site, schedule, break, evaluation method and overall responsibilities.
- 5- Supervision and guidelines of students when handling drug information questions and consultations.
- 6- Monitor student progress to ensure stated objectives are adequately met.
- 7- Provide mid and final evaluation.



**Site Responsibilities:**

4. Orient the student to the practice site including hospital system, policy and procedure, direction, parking, etc.
16. Provide a student ID to be able to enter and practice at the site.
17. Provide access to appropriate drug information resources.
18. Communicate with the hospital team/service to start the training.
19. Provide appropriate communication with PNU training and internship Administration whenever needed.

## **Advanced Pharmacy Practice Experience (APPE) Administration Rotation**

### **Goals and objectives**

This rotation serves to introduce the interns to core elements of hospital pharmacy practice, management functions and pharmacy leadership styles, providing them the opportunity to experience and learn from the many unique challenges facing hospital pharmacy management teams in today's complex health care environment. The intern will work assigned pharmacy leadership and will acknowledge the different scopes and roles in pharmacy leadership from department-specific leadership and personnel management, to system pharmacy leadership and other levels of leadership. Interns will be exposed to different job responsibilities in order to gain confidence, critical thinking, leadership skills and a better appreciation of the role of pharmacy director/manager in the provision of healthcare to be an effective team player.

Administration rotation allows pharmacy interns to:

1. Understand the mission, vision, goals and the organizational structure of the department of pharmacy.
2. Understand the organization hierarchy and list the departments, organizations and/or businesses that the pharmacy department must work with to achieve its goals and objectives.
3. Understand the pharmacy chain of command and line of authority and responsibilities as per pharmacy departmental structure.
4. Explain various aspects of leadership, including leadership styles and management functions like planning, organizing, directing, and controlling
5. Explain the process of staff recruiting, development including pharmacy residency program (if applicable).
6. Recognize quality improvement principles and KPI management in pharmacy, to learn how to develop new ideas and approaches to improve quality or overcome barriers to advance the pharmacy department and the profession in general.
  - a. How to assign and follow up KPIs
  - b. How to conduct quality improvement projects
  - c. Complete management-focused mini projects, as assigned.
  - d. Perform information gathering and critical analysis as part of projects assigned during the experience.
7. Describe how legal, regulatory, and/or accrediting agencies affect the activities of the pharmacy department.
8. Describe the role of pharmacy administration in hospital committees: e.g.
  - a. PTC (Pharmacy and therapeutic committee) those roles applied but not limited to:
    - i. Describe the process for approval of treatment guideline/protocol, pre-printed medication orders and drug policy development.

- ii. Describe the drug formulary review process including pharmacist involvement in P&T Committees.
  - iii. Understands the difference between formulary, non-formulary, patient's own medications, narcotics, controlled and investigational drugs.
- b. Explain the pharmacy role in codes and medical emergencies in the hospital.
- c. Medication /Patient Safety committee
- d. Pharmacovigilance
- 9. Understand and demonstrate effective leadership skills e.g effective and appropriate written, verbal and nonverbal communication that's including how to chair/call for meeting, taking minutes and participate in hospital-wide meetings with preceptors.
- 10. Understand the basics of informatics and pharmacy automation from a managerial angle.
- 11. Understand the importance of role modeling, mentorship, continuing professional development and education policies in building pharmacy leaders.
- 12. Have an idea about third-party billing, legal requirements in general if applicable or tender or medication procurement decisions.

#### **Intern Responsibilities:**

1. Adhere to the rotation schedule and deadlines for assignments.
2. Be consistent and proactive in experiential education, which necessitates active participation and communication.
3. Report all of the activities (including the completion of an assignment) to the preceptor.
4. Attend and participate (if applicable) in hospital-wide meetings with the preceptor.
5. Take minutes for all meetings attended.
6. Display professional comportment: appearance, attitude, and behavior.
7. Provide a mini project and at least 1 activity (e.g., in-service, presentation, community, or hospital service) to the pharmacy or patient-care team.
8. Deliver a presentation on specific topics as assigned by preceptor

#### **Preceptor Responsibilities:**

1. Orient the intern to the practice site, schedules (days and hours), break, evaluation methods, and overall responsibilities including departmental manual, policies, and procedures, etc.
2. Assign a mini project and activity for the intern to start working on it.
3. Give the intern the opportunity to attend meeting for example P&T committee.
4. Arrange a meeting with other pharmacy managers/leader to discuss the responsibilities to discuss their role if possible.
5. Discuss the topics mentioned in the objectives with the intern.
6. Monitor intern progress to ensure stated objectives are adequately addressed and met.
7. Guide and answer intern questions and share knowledge and skills with the student.

8. Maintain intern/department confidentiality.
9. Provide final evaluation at the end of the week.

**Site Responsibilities:**

1. Orient the student to the practice site
2. Provide a student ID to be able to enter and practice at the site.
3. Provide appropriate communication with PNU training and internship Administration whenever needed

**Mini Project and Activities Suggestions:**

1. Identifies the need for a new service or program, or improvements to an existing service or program.
2. Ways of improving the waiting time in outpatient pharmacy.
3. How to reduce the returned/missing medications from the wards.
4. Improving work environment for staff.
5. Review of medication use policy that is not followed in the hospital.
6. Other.

## **Advanced Pharmacy Practice Experience (APPE) Quality Rotation**

### **Goals and objectives**

The Advanced Pharmacy Practice Experience (APPE) Quality Rotation aims to introduce the pharmacy intern to the fundamental concept of the quality, policy, and procedure undertaken to ensure the quality of the pharmaceutical products. Additionally, it aims to enhance the pharmacy intern experience and knowledge in preventing and managing medication-related problems.

Pharmacy Quality Rotation allows pharmacy intern to become familiar with:

1. The fundamental concept and structure of quality control.
2. Reviewing the policy and procedure undertaken to ensure the quality of the pharmaceutical products and workplace.
3. Recognition of the accreditation standards and processes that the organization needs to meet.
4. Identification of quality improvement tools and techniques.
5. Review and the analysis of objective data and use these data to develop quality action plans.
6. The participation of all regulatory inspections for the pharmacy and wards.
7. The involvement in product evaluation and selection process.
8. The action taken if stock is damaged, contaminated, beyond the expiry date, or has an inconsistent batch number.
9. Identification of the storage requirements of different types of products and hazardous medication.
10. Perceived action taken if the company recalls or drug alerts following agreed guidelines.
11. Demonstration professional attitudes and behaviors that characterize a professional pharmacist.
12. Demonstration self-directed learning abilities during the rotation.

### **Intern Responsibilities:**

1. Attending and participating in daily activities.
2. Attendance of the quality-related committees and team meetings.
3. Ensuring the product packaging, distribution, and storage meet the quality specifications.
4. Addressing and reporting product quality concerns.
5. Suggesting solutions to resolve medication-related problems.
6. Displaying professional comportment: appearance, attitude, and behavior.
7. Providing at least one activity (e.g., in-service, presentation).

### **Preceptor Responsibilities:**

1. Orientation of the intern to the practice site, schedules (days and hours), break, evaluation methods, and overall responsibilities.
2. Assigning duties to the intern for workup.
3. Discussion of the quality concepts with the intern.
4. Monitoring the intern progress to ensure that the stated objectives are adequately addressed and met.

5. Guiding and answering intern questions and sharing knowledge and skills with the intern.
6. Maintaining intern confidentiality.
7. Providing mid and final evaluation at the end of the week.

## **Advanced Pharmacy Practice Experience (APPE) Pharmacy Informatics/Automation Rotation**

### **Goals and objectives**

The Advanced Pharmacy Practice Experience (APPE) in pharmacy informatics will provide a practical understanding of the language and concepts of information technology (IT) thereby exposing the intern to the interdisciplinary environment of informatics project teams. The purpose of this experience is to advance the understanding of the intern to the professional duties and responsibilities of a pharmacy informatics specialist.

Pharmacy informatics/automation rotation allows pharmacy interns to:

1. Familiarize with pharmacy automation solutions and informatics systems used in the pharmacy.
2. Understand the advantages and limitations of pharmacy automated solutions and informatics systems.
3. Describe the roles and responsibilities of pharmacy informatics specialist.
4. Explain how pharmacy automated solutions and informatics systems affects patient safety and pharmacy workflow.

### **Intern Responsibilities:**

1. Attend daily to the assigned area.
2. Participate in the various discussion activities and meetings.
3. Display professional comportment: appearance, attitude, and behavior.
4. Complete all activities and tasks assigned by the preceptor.

### **Preceptor Responsibilities:**

1. Orient the intern to the practice site, staff, schedule (days and hours), break, evaluation methods.
2. Monitor intern progress to ensure stated objectives are adequately addressed and met.
3. Provide hands on training if applicable.
4. Guide and answer intern questions and share knowledge and skills with the intern.
5. Maintain intern confidentiality.
6. Provide final evaluation at the end of the rotation.

### **Site Responsibilities:**

20. Communicate with the preceptor about the starting date.
21. Provide access and ID to the intern.
22. Provide appropriate communication with PNU training and internship Administration whenever needed.

## **Advanced Pharmacy Practice Experience (APPE) Pharmacoeconomic Rotation**

### **Goals and objectives**

The Advanced Pharmacy Practice Experience (APPE) Pharmacoeconomic rotation aims to introduce the pharmacy intern to the fundamental concept of the pharmacoeconomic, planning process and cost-effective analysis. Besides, it aims to improve the pharmacy intern experience and knowledge to enhance therapeutic decision making.

Pharmacoeconomic rotation allows pharmacy intern to:

1. Understand the fundamental concept and terms of pharmacoeconomic.
2. Identify the types of health economic evaluation (cost-benefit analysis, cost-effective analysis and cost-utility analysis).
3. Identify the financial planning and horizon scanning of new medicines.
4. Describe the sensitivity analysis technique.
5. Understand the decision analysis technique for comparing alternative treatment options.
6. Design strategy to avoid the costs associated with non-adherence medication, unused medication or adverse drug of medications.
7. Utilize the appropriate pharmacoeconomic resources and references.
8. Assess the cost of medication and therapeutic intervention.
9. Engage in drug pricing evaluation and comparisons.
10. Demonstrate professional attitudes and behaviors that characterize a professional pharmacist.
11. Demonstrate self-directed learning abilities during the rotation.

### **Intern Responsibilities:**

5. Attendance and participation in daily activities.
6. Attending the pharmacoeconomic related committees and team meetings.
7. Suggestion of solutions to minimize the costs associated with unused medication.
8. Participating in assessing the cost of medical products and services.
9. Using appropriate pharmacoeconomic resources.
10. Performing information gathering and critical analysis as part of projects assigned during the experience.
11. Display professional comportment: appearance, attitude, and behavior.
12. Providing at least one activity (e.g., in-service, presentation).

### **Preceptor Responsibilities:**

7. Orientation of the intern to the practice site, schedules (days and hours), break, evaluation methods, and overall responsibilities.



8. Assigning duties to the intern for workup.
9. Discussion of the quality concepts with the intern.
10. Monitoring the intern progress to ensure stated objectives are adequately addressed and met.
11. Guiding and answering intern questions and sharing knowledge and skills with them.
12. Maintaining intern confidentiality.
13. Providing mid and final evaluation at the end of the week.

**Site Responsibilities:**

5. Orient the student to the practice site
23. Provide a student ID to be able to enter and practice at the site.
1. Provide appropriate communication with PNU training and internship Administration whenever needed

## **Advanced Pharmacy Practice Experience (APPE) Medication Safety Rotation**

### **Goals and objectives**

The Advanced Pharmacy Practice Experience (APPE) Medication safety rotation aims to provide interns with a broad perspective of the types of activities involved in managing medication safety related issues in a health-system.

Medication safety rotation allows pharmacy intern to become familiar with:

- 1- Reviewing adverse drug events including medication-related significant safety events.
- 2- Reporting Medication Error Data and Adverse Drug Reaction data to the Pharmacy and Therapeutics Committee.
- 3- Reviewing policies and procedures that have medication safety implications.
- 4- Ensures compliance with medication safety regulations and standards.
- 5- Participate in a medication use evaluation.
- 6- Tools and methods that are used to improve medication Safety.

### **Intern Responsibilities:**

13. Attend and participate in daily activities.
14. Attend all medication safety related committees and team meetings.
15. Suggest solutions to minimize medication errors.
16. Participate in assessing the cost of medical products and services.
17. Perform information gathering and critical analysis as part of projects assigned during the experience.
18. Display professional comportment: appearance, attitude, and behavior.
19. Provide at least one activity (e.g., in-service, presentation).

### **Preceptor Responsibilities:**

14. Orient the intern to the practice site, schedules (days and hours), break, evaluation methods, and overall responsibilities.
15. Assign duties to the intern for workup.
16. Discuss the quality concepts with the intern.
17. Monitor the intern progress to ensure stated objectives are adequately addressed and met.
18. Guide and answer intern questions and sharing knowledge and skills with them.
19. Maintain intern confidentiality.
20. Provide mid and final evaluation at the end of the week.

## **Advanced Pharmacy Practice Experience (APPE) Formulary Management**

### **Goals and objectives**

The formulary management rotation aims to allow pharmacy interns to understand the role of the pharmacist within the Pharmaceutical and Therapeutic Committee (P&T committee) when dealing with hospital formulary.

The formulary management rotation allows pharmacy interns to achieve the following:

- 1- Understand basic formulary management principles (knowledge).
- 2- Implement evidence-based medicine to drive decision making (cognitive).
- 3- Summarize and interoperate complex evidence in a logical manner (Skill).

### **Student Responsibilities:**

- 11- Attend on time.
- 12- Complete all the tasks assigned by the preceptor.
- 13- Provide at least one activity (e.g., in-service, presentation) to the preceptor.
- 14- Display professional comportment: appearance, attitude and behavior.
- 15- React positively to constructive criticism
- 16-

### **Preceptor Responsibilities:**

- 8- Orient the student to the practice site, schedule, break, evaluation method and overall responsibilities.
- 9- Monitor student progress to ensure stated objectives are adequately met.
- 10- Provide mid and final evaluation.

### **Site Responsibilities:**

6. Orient the student to the practice site including policy and procedure, direction, parking, etc.
24. Communicate with the hospital team/service to start the training.
25. Provide appropriate communication with PNU training and internship Administration whenever needed

## Appendix

The intern should be evaluated by the preceptor using the electronic form evaluation links will be provided by training and internship Administration

**The intern's performance evaluation is based upon the following rating scale:**

<b>5 Excellent</b>	<b>4 Good</b>	<b>3 Adequate</b>	<b>2 Fair</b>	<b>1 Poor</b>
The intern has demonstrated excellence in this competency. The intern consistently performs the competency above expectations and requires minimal guidance and supervision from the preceptor.	The intern has adequately demonstrated this competency. The intern frequently performs the competency within expectations and requires minimal guidance and supervision from the preceptor.	The intern is developing skills in this competency; however, some minor improvement(s) are needed in order to meet the competency. The intern sometimes performs the competency within expectations and requires regular guidance and supervision.	The intern is fairly meeting the competency and substantial effort is needed in order to meet the competency. The intern rarely performs the competency within expectations and requires constant guidance and supervision.	The intern is poorly meeting the competency and substantial effort is needed in order to meet the competency. The intern does not perform the competency and requires constant guidance and supervision.

## Inpatient Evaluation

Standards	1	2	3	4	5
<b>SECTION I: KNOWLEDGE</b>					
1. Adhere to the inpatient workflow, policies, and procedures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Recognize medication storage regulations (e.g., insulin, vaccine).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Demonstrate an understanding of the tool used to decrease medication error (e.g., LASA, eight rights).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Explain the process of dealing with expired and returned medication.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Outline the pharmacology, adverse effect, therapeutic response, therapeutic drug monitoring for the most common medications.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Demonstrate understanding of USP 797.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SECTION II: SKILLS</b>					
7. Participate in medication preparation, labeling and distribution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Participate in IV preparation under supervision.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Perform a proper hand hygiene, gloving and garbing technique.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Show a proper aseptic technique, cleaning, and disinfecting procedures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Correctly prepare and calculate the number of pills, ampules (and IV , PB, active ingredients needed for IV preparation.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Use appropriate resources, references and appraising scientific literature to be utilized in evidence-based practice and drug information response.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Identifies potential solutions to the original problem and the potential consequences of those solutions (e.g., allergy, adherence, drug shortage, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Ability to welcome constructive criticism and comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Communicate effectively verbally and non-verbal in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Complete all rotation activities and assignments in a timely, organized, and logical manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SECTION VI: VALUES</b>					
17. Demonstrate accountability and acceptance of responsibility.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Maintain patient safety standers in all decisions in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Demonstrate professional attitude, ethical behavior, confidentiality, and cultural awareness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Demonstrate a professional dress code according to the organization policy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Outpatient Rotation Evaluation

Standards	1	2	3	4	5
<b><i>SECTION I: KNOWLEDGE OUTCOMES</i></b>					
1. Adhere to the outpatient workflow, policies and procedures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Participate in medication preparation, labeling and distribution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Recognize medication storage regulations (e.g., insulin, vaccine).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Demonstrate an ability to understand the refill medication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Participate in patient counseling "under supervision"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Demonstrate an understanding of the tool used to decrease medication error (e.g. LASA, eight rights).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Explain the process of dealing with expired and returned medication.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Outline the pharmacology, adverse effect, therapeutic response, therapeutic drug monitoring for the most common medications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b><i>SECTION II: SKILLS &amp; COMPETENCE</i></b>					
9. Correctly prepare and calculate the number of pills, ampules, inhaler...etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Uses appropriate drug information resources to develop responses to drug information requests.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Identifies potential solutions to the original problem and the potential consequences of those solutions (e.g., allergy, adherence, drug shortage, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Maintains a high standard for personal and professional behavior including punctuality, confidentiality and time management skills.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Demonstrates a formal and professional dress code according to the organization policy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Demonstrate acceptance of responsibility, constructive criticism and comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Communicates effectively in verbal, non-verbal and writing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b><i>Values III</i></b>					
16. Completes all rotation activities and assignments in a timely manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Presents the task/assignment in an organized and logical manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Maintain patient safety standers in all decisions in various settings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Demonstrate professional attitude, ethical behavior, confidentiality, and cultural awareness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Perform appropriate patient assessment and monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Direct Patient Care Evaluation

<b>Standards</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b><i>SECTION I: KNOWLEDGE</i></b>					
1.Demonstrates knowledge of disease states appropriate for this clinical setting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.Provide the expected mechanism of action, therapeutic response, adverse effects, therapeutic drug monitoring for a given drug.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.Provide the expected adverse effects for a given drug.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.Identify drug-drug and drug – food interactions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.Perform therapeutic drug monitoring for a given drug.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b><i>SECTION II: SKILLS</i></b>					
6.Obtain and interpret information from the medical chart, computer system or patient's interview.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.Review and prepare a patient chart before starting the rounds (pre rounding).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.Perform appropriate patient assessment and monitoring.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.Consistently and accurately identifies and prioritizes all medication-related problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.Design and evaluates regimens for optimal outcomes, incorporates pharmacokinetic, hospital formulary data, and routes of administration into the decision.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.Perform correct pharmaceutical calculations including dose recommendations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.Use appropriate resources, references and appraising scientific literature to be utilized in evidence-based practice and drug information response.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.Identifies potential solutions to the original problem and the potential consequences of those solutions (e.g., allergy, adherence, drug shortage, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.Ability to welcome constructive criticism and comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.Communicate effectively verbally and non-verbal in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.Complete all rotation activities and assignments in a timely, organized, and logical manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b><i>SECTION III: VALUES</i></b>					
17.Demonstrate accountability and acceptance of responsibility.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.Maintain patient safety standers in all decisions in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



19.Demonstrate professional attitude, ethical behavior, confidentiality, and cultural awareness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20.Demonstrate a professional dress code according to the organization policy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Transition of Care Rotation (TOC)-Clinical Rotation Evaluation

Standards	1	2	3	4	5
<b>SECTION I: KNOWLEDGE</b>					
1. Obtain and interpret information from the medical chart, computer system or patient's interview.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Provide the expected therapeutic response, adverse effects, therapeutic drug monitoring and calculation for a given drug.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SECTION II: SKILLS</b>					
3. Review and prepare patient questions before visiting/calling the patient.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Perform effective patient interview.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Performs appropriate patient assessment and monitoring.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Consistently and accurately identify and prioritize all medication-related problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Design and evaluate regimens for optimal outcomes, incorporates hospital formulary data, and routes of administration into the decision.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Perform correct pharmaceutical calculations including dose recommendations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Provide effective patient counselling.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Participate in medication preparation and labeling.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Correctly prepare and calculate the number of pills, ampules. etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Uses appropriate resources, references and appraising scientific literature to be utilized in evidence-based practice and drug information response.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Identify potential solutions to the original problem and the potential consequences of those solutions (e.g., allergy, adherence, drug shortage, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Ability to welcome constructive criticism and comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Communicate effectively verbally and non-verbal in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Complete all rotation activities and assignments in a timely, organized, and logical manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SECTION III: VALUES</b>					
17. Demonstrate accountability and acceptance of responsibility.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Maintain patient safety standers in all decisions in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Demonstrate professional attitude, ethical behavior, confidentiality, and cultural awareness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Demonstrate a professional dress code according to the organization policy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## TPN Evaluation

Standards	1	2	3	4	5
<b>SECTION I: KNOWLEDGE</b>					
1. Recognize the purposes, goals and evaluate the appropriateness of parenteral nutrition therapy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Recommend adjustments in electrolyte provision and the most appropriate route for adjustments (TPN versus maintenance IV versus IV or PO supplemental dose) and differentiate between adult and pediatric TPN guidelines and requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Estimate caloric and protein requirements for a patient and formulate a parenteral nutrition plan to meet these requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Recognize the types of specialized amino acid formulas available for use and when these formulas might be recommended.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Discuss normal fluid and electrolyte balance and recognize the effects of medications on them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Discuss options for controlling hyperglycemia in patients receiving parenteral nutrition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Discuss monitoring parameters for patients receiving parenteral nutrition including which parameters to use, how often they are checked, and interpretation of test results.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Understand basic interpretation of blood gas values, especially as related to components of the parenteral nutrition formulation and appropriate changes in the parenteral nutrition formulation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SECTION II: SKILLS</b>					
9. Calculate the quantity of each ingredient/component needed for TPN preparation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Perform good hand hygiene and recall aseptic technique for IV preparations related to IV compounding.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Perform Daily progress notes on assigned parenteral nutrition patients.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Use appropriate resources, references and appraising scientific literature to be utilized in evidence-based practice.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Identify potential solutions to the original problem and the potential consequences of those solutions (e.g., allergy, drug interactions, drug shortage, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Ability to welcome constructive criticism and comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Communicate effectively verbally and non-verbal in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Complete all rotation activities and assignments in a timely, organized, and logical manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SECTION III: VALUES</b>					
17. Demonstrate accountability and acceptance of responsibility.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Maintain patient safety standers in all decisions in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Demonstrate professional attitude, ethical behavior, confidentiality, and cultural awareness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Demonstrate a professional dress code according to the organization policy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## IV Evaluation

Standards	1	2	3	4	5
<b>SECTION I: KNOWLEDGE</b>					
1.Comprehend the workflow and duties associated with intravenous preparation and understand policy and procedure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.Be familiar with the design and air quality of anti-room and buffer area.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.Demonstrate understanding of vertical and horizontal laminar flow hood.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.Recognize medication storage regulation (such as required temp, expiry date ext.).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.Knowledge of Chemotherapy Department.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.Understand how to properly dispose hazard material.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SECTION II: SKILLS</b>					
7.Correctly use auxiliary labels when appropriate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.Demonstrate the ability to prioritize medication orders considering workload and clinical status of patients (i.e. STAT vs routine orders).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.Actively participate in preparation of daily medication.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.Recall aseptic technique related to IV including good hand hygiene and cleaning different laminar air flow hoods.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.Calculate the quantity of active ingredient needed for each IV preparation and calculate the number of IV PB.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.Use appropriate resources, references and appraising scientific literature to be utilized in evidence-based practice and drug information response.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.Identify potential solutions to the original problem and the potential consequences of those solutions (e.g., allergy, drug shortage, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.Ability to welcome constructive criticism and comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.Communicate effectively verbally and non-verbal in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.Complete all rotation activities and assignments in a timely, organized, and logical manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SECTION III: VALUES</b>					
17.Demonstrate accountability and acceptance of responsibility.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.Maintain patient safety standers in all decisions in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.Demonstrate professional attitude, ethical behavior, confidentiality, and cultural awareness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20.Demonstrate a professional dress code according to the organization policy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Drug Information Evaluation

Standards	1	2	3	4	5
<b>SECTION I: KNOWLEDGE</b>					
1. Clearly understands the structure and workflow of Drug Information Service.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Differentiate between primary, secondary, and tertiary DI resources.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Familiar with the most common resources used in the DI.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Demonstrate knowledge on handling DI questions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Describes the makeup of the P&T Committee. Understands the purpose of the P&T Committee and involvement of Pharmacy on that Committee.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SECTION I: SKILLS</b>					
6. Able to identify and prioritize new drug safety alert according to the guidelines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Assist in collecting and analyzing ADRs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Properly obtain the required background information for a given drug information question	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Obtain appropriate resources in a prompt manner needed to answer a given drug information question or consult	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Analyze collected data and apply judgment in responding to a drug information question	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Proper follow-up on drug information questions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Appropriately appraising scientific literature to be utilized in drug information response.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Identify potential solutions to the original problem and the potential consequences of those solutions (e.g., allergy, adherence, drug shortage, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Ability to welcome constructive criticism and comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Communicate effectively verbally and non-verbal in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Complete all rotation activities and assignments in a timely, organized, and logical manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SECTION III: VALUES</b>					
17. Demonstrate accountability and acceptance of responsibility.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Maintain patient safety standers in all decisions in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Demonstrate professional attitude, ethical behavior, confidentiality, and cultural awareness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Demonstrate a professional dress code according to the organization policy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Administration Practice Evaluation

Standards	1	2	3	4	5
<b>SECTION I: KNOWLEGE</b>					
1.Explain the organizational structure of the pharmacy and the roles and functions of all functional units.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.Explain the pharmacist role in P&T committee and the process of drug introduction to the hospital formulary.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.Differentiate between the terms: drug policy, protocol, preprinted orders, and guidelines.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.Describe the proper actions/steps when a drug recall, medication error and code occur.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.Describe the medication use process (formulary, non-formulary, investigational).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.Identifies automation, technology, and information systems used in pharmacy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.Discuss and provide examples of the accreditation process and professional standards.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.Identify the pharmacist career path options in the institution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SECTION II: SKILLS</b>					
9.Select an appropriate mini project design.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.Deliver an effective mini project proposal to the preceptor clearly and concisely.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.Writing effective meeting minutes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.Use appropriate resources, references and appraising scientific literature to be utilized in evidence-based practice.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.Identify potential solutions to the original problem and the potential consequences of the suggested solutions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.Ability to welcome constructive criticism and comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.Communicate effectively verbally and non-verbal in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.Complete all rotation activities and assignments in a timely, organized, and logical manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SECTION III: VALUES</b>					
17.Demonstrate accountability and acceptance of responsibility.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.Maintain patient safety standers in all decisions in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.Demonstrate professional attitude, ethical behavior, confidentiality, and cultural awareness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20.Demonstrate a professional dress code according to the organization policy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Quality Evaluation

Standards	1	2	3	4	5
<b>SECTION I: KNOWLEDGE</b>					
1. Identify the basic principles underlying quality control.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Define the policy, procedure and technique associated with the quality.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Define the pharmacist role in quality control.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Understand the overall inspections process for the pharmacy and wards.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Identify quality improvement tools and techniques.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Recognize different storage conditions for different pharmaceutical products.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Familiarize with the pharmaceutical products evaluation and selection process.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Demonstrate the ability to deal with the damaged, contaminated, beyond expiry date stock or company recalls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Recognize the accreditation standards and processes that the organization needs to meet.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SECTION II: SKILLS</b>					
10. Demonstrate initiative and creativity to identify and respond to opportunities and challenges.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Engage in assessing and monitoring the quality standers and plans.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Use appropriate resources, references and appraising scientific literature to be utilized in evidence-based practice.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Identify potential solutions to the original problem and the potential consequences of the suggested solutions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Ability to welcome constructive criticism and comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Communicates effectively verbally and non-verbal in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Complete all rotation activities and assignments in a timely, organized, and logical manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SECTION III: VALUES</b>					
17. Demonstrate accountability and acceptance of responsibility.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Maintain patient safety standers in all decisions in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Demonstrate professional attitude, ethical behavior, confidentiality, and cultural awareness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Demonstrate a professional dress code according to the organization policy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Drug Information Evaluation

Standards	1	2	3	4	5
<b>SECTION I: KNOWLEGE</b>					
1.Clearly understands the structure and workflow of Drug Information Service.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.Differentiate between primary, secondary, and tertiary DI resources.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.Familiar with the most common resources used in the DI.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.Demonstrate knowledge on handling DI questions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.Describes the makeup of the P&T Committee. Understands the purpose of the P&T Committee and involvement of Pharmacy on that Committee.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SECTION I: SKILLS</b>					
6.Able to identify and prioritize new drug safety alert according to the guidelines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.Assist in collecting and analyzing ADRs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.Properly obtain the required background information for a given drug information question	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.Obtain appropriate resources in a prompt manner needed to answer a given drug information question or consult	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.Analyze collected data and apply judgment in responding to a drug information question	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.Proper follow-up on drug information questions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.Appropriately appraising scientific literature to be utilized in drug information response.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.Identify potential solutions to the original problem and the potential consequences of those solutions (e.g., allergy, adherence, drug shortage, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.Ability to welcome constructive criticism and comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.Communicate effectively verbally and non-verbal in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.Complete all rotation activities and assignments in a timely, organized, and logical manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SECTION III: VALUES</b>					
17.Demonstrate accountability and acceptance of responsibility.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.Maintain patient safety standers in all decisions in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.Demonstrate professional attitude, ethical behavior, confidentiality, and cultural awareness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20.Demonstrate a professional dress code according to the organization policy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



## Pharmacoeconomy Evaluation

Standards	1	2	3	4	5
<b>SECTION I: KNOWLEDGE</b>					
1.Understand the terminology associated with Pharmacoeconomy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.Perceive the basic principles underlying Pharmacoeconomy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.Recognize the types of health economic evaluation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.Understand the overall financial planning and horizon scanning process of new medication.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.Describe the sensitivity analysis technique.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.Understand the decision analysis technique for comparing alternative treatment options.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.Familiarize with the drug pricing process.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SECTION II: SKILLS</b>					
8.Suggest strategies to avoid the costs associated with the nonadherence medication, unused medication, and adverse drug of the medication.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.Participate in assessing the cost of medication and therapeutic intervention.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.Utilize the appropriate pharmacoeconomic resources.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.Demonstrate initiative and creativity to identify and respond to opportunities and challenges.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.Use appropriate resources, references and appraising scientific literature to be utilized in evidence-based practice.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.Identify potential solutions to the original problem and the potential consequences of the suggested solutions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.Ability to welcome constructive criticism and comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.Communicate effectively verbally and non-verbal in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.Complete all rotation activities and assignments in a timely, organized, and logical manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SECTION III: VALUES</b>					
17.Demonstrate accountability and acceptance of responsibility.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.Maintain patient safety standers in all decisions in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.Demonstrate professional attitude, ethical behavior, confidentiality, and cultural awareness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20.Demonstrate a professional dress code according to the organization policy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Medication Safety Evaluation

Standards	1	2	3	4	5
<b>SECTION I: KNOWLEDGE</b>					
1. Describe the NCC-MERP medication error classification.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Describe policies and procedures related to error reporting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Describe policies and procedures related to error investigation by the pharmacist.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Describe policies and procedures related to resolving medication errors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Describe policies and procedures related to preventing medication errors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Understand how tools such as RCA, Failure mode and effect analysis and Lean sigma can improve medication safety.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SECTION II: SKILLS</b>					
7. Participate in daily medication error review.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Participate in staff education related to medication errors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Participate in ward inspections and writing reports.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Report relevant ADR to SFDA.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Manage to respond effectively to routine or unanticipated circumstances.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Use appropriate resources, references and appraising scientific literature to be utilized in evidence-based practice.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Identify potential solutions to the original problem and the potential consequences of the suggested solutions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Ability to welcome constructive criticism and comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Communicate effectively verbally and non-verbal in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Complete all rotation activities and assignments in a timely, organized, and logical manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SECTION III: VALUES</b>					
17. Demonstrate accountability and acceptance of responsibility.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Maintain patient safety standards in all decisions in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Demonstrate professional attitude, ethical behavior, confidentiality, and cultural awareness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Demonstrate a professional dress code according to the organization policy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Formulary Management Evaluation

Standards	1	2	3	4	5
<b>SECTION I: KNOWLEDGE</b>					
1.Demonstrate an understanding of the pharmacist role in the P&T committee.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.Define the role of formulary management within an organization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.Demonstrate an understanding of the process of evaluating a new medication to be included in the formulary.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.Understand the different types of drug class review.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.Understand how to conduct pharmacoeconomic evaluations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.Outline the strategies for managing medication use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SECTION II: SKILLS</b>					
7.Categorize literature based on type and strength of evidence.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.Able to extrapolate and interoperate safety, efficacy, cost-effectiveness data from appropriate sources.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.Able to summarize and formulate a decision based on appropriate evidence.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.Able to critically analyze relevant literature.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.Able to construct evidence-based recommendations from relevant literature.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.Use appropriate resources, references and appraising scientific literature to be utilized in evidence-based practice.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.Identify potential solutions to the original problem and the potential consequences of suggested solutions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.Ability to welcome constructive criticism and comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.Communicate effectively verbally and non-verbal in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.Complete all rotation activities and assignments in a timely, organized, and logical manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SECTION III: VALUES</b>					
17.Demonstrate accountability and acceptance of responsibility.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.Maintain patient safety standers in all decisions in various settings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.Demonstrate professional attitude, ethical behavior, confidentiality, and cultural awareness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20.Demonstrate a professional dress code according to the organization policy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Training and Internship Administration Contact Information

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