

KINGDOM OF SAUDI ARABIA  
Ministry of Higher Education  
University of Tabuk  
Faculty of Pharmacy



المملكة العربية السعودية  
وزارة التعليم العالي  
جامعة تبوك  
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FACULTY OF PHARMACY

Advanced Pharmacy Practice Experience (APPE)  
Manual



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## **PREFACE**

Internship is an integral part of the Pharm D program in to offer an opportunity to student to practice their classroom learning in real life scenario. According to the policy of department of pharmacy practice, Faculty of Pharmacy, University of Tabuk, each student should spend specified period in various specializations in practice site to gain clinical experience in their clerkship. The advanced pharmacy practice experience (APPE) year is made up of eight "6-weeks rotation"; in pharmacy practice site. The eight rotations comprise six mandatory (core) rotations which include four clinical rotations, one inpatient and one outpatient (community/hospital pharmacy) rotation, in addition to two elective rotations. The clinical rotations are distributed along different clinical departments of the healthcare setting.

The student under the direction of various departments and preceptors will integrate their knowledge of physical assessment, Pharmacology, Pharmaceutics, Communication Skills, Pharmacokinetics, and Pharmacodynamics in assessing therapeutic plans and in evaluating the selected drugs for patients. This internship booklet is prepared with the intention to provide orientation to interns about various tasks to be performed and/or observed in different training stages during one year internship.

The beginning of the booklet entails the description of clerkship training program and learning outcomes of the program. Following this, particulars of clerkship rotations and their specific learning objectives with required topics are covered.

The main content of this booklet is detailed view about students weekly training activities. They need to tasks list in each discipline during their training at each stage.

It is essential to evaluate intern's professional behavior and technical competencies that are expected to achieve on completion of his/her internship.

## **DEFINITION OF THE APPE PROGRAM**

The APPE year is the last part of the program for the Pharm D program in Faculty of Pharmacy, University of Tabuk. APPE is an organized, directed program in a defined area of pharmacy practice, which is to be carried out under the supervision of a well-trained preceptors who have expertise knowledge in drug therapy and clinical skills for better patient care. APPE is a twelve months of clinical training after students complete graduation requirements. This period is considered an important part of the study of the Pharm D program and the student is not considered qualified to practice the profession of pharmacy until the completion of this period successfully. It aims at providing students with a practical and stimulating learning experience where they are given an opportunity to participate in ward rounds along with the health care team and provide a wide variety of clinical services. Moreover, the community/hospital pharmacy (outpatient) rotation enables the student to actually observe the difference between pharmacy practice in hospital setting and community setting plus the different types of community pharmacy.

## **CRITERIA FOR JOINING APPE PROGRAM**

Successful completion of all the university requirements at the end of the fifth year of the Faculty of Pharmacy, Tabuk University.

## **GENERAL RULES OF CONDUCT**

1. Student must exhibit a professional appearance in both manner and dress according to Saudi culture and the standards of dress and behavior specified by the practice site to which he/she is assigned.
2. Before the start of APPE rotations, the student has to provide immunization records and BLS certificate (CPR).
3. Student is obligated to respect all professional policies and personnel. He/she should respect and comply with all institutional policies, rules, and regulations.
4. The student must keep in mind that learning is not passive process but requires active participation & communication.
5. The student should encourage communication with all health care provider team and required to perform interprofessional experience activities (IPE) during the rotation.
6. The student must keep in mind that all criticism from preceptors should be viewed as a means of learning.
7. The student should NOT make professional decisions that affect patient care without checking with the preceptor.

8. The student should take the initiative in communicating with physicians, patients, students and other people encountered during the rotation.
9. The student should be punctual in meeting the schedule. The student is obligated to notify the preceptor as soon as possible if he/she will be absent or late. Attendance is mandatory. **(absence request form)**
10. The student should never be hesitant to admit that he/she does not know something, and should seek help whenever needed.
11. The student is expected to demonstrate maturity.
12. The student must adhere to his allotted distribution place within the training area and roaming to other places of practice site unnecessarily is strictly restricted and in that case it will be considered as complete day absent and a warning letter will be issued in his file.

## ATTENDANCE POLICY

- Complete attendance is mandatory of all students for every rotation
- Students are expected to be present at the assigned practice site at least **5 days per week (8 hours per day)** from 8 a.m. to 5 p.m. during each rotation or as per rotation schedule. (any 8 hours per day the hospital administrative will determine to interns at the beginning of each rotation with the preceptor agreement).
- The student may miss up to three (3) days per rotation for medical or personal reasons only if the preceptor is notified in a timely manner with a formal excuse.
- Failure to complete required makeup days, unapproved absences, or sick days in excess of 3 days will result in an F grade or incomplete grade.
- All student rotation schedules are coordinated through the Pharmaceutical Training Unit.
- **Any student who makes an unauthorized changed in their rotation without the approval of the Pharmaceutical Training Unit will fail the rotation.**
- Schedules of student rotations may only be modified at the discretion of Pharmaceutical Training Unit.
- Students are encouraged to participate in practice site-sponsored events like conferences and seminars, which may be scheduled during rotation hours. In order to receive excused absence to attend any of these events, each student attending the event must individually submit a request, in writing to the Pharmaceutical Training Unit at least two week prior to the event. Students may be required to make up these hours.
- In the case of repeated delay of the student in the presence accredited time or departure before accredited departure time, a mechanism of verbal alert first and in case of non-response, calculated hours of delay or early departure and **deducted five (5) marks for every seven hours** and reported in the student file as a weak point.

- The Pharmaceutical Training Unit regulates continuous follow- up of APPE year students. The committee has the authority to take any decision that it deems appropriate for any student does not abide by the regulations and controls provided for
- **The permit shall not exceed three hours per week (the authorization shall be approved by the supervisor of training in the practice site and recorded in the attendance paper).**

## HOLIDAYS/LEAVE

Holiday	Emergency leave	Educational leave	National Day	Eid AlFitr	Eid Aladha
Number of days	5	5	1	12	12

## **OVERALL APPE LEARNING OUTCOMES**

By the end of each rotation student should be able to:

### **1.1. Participate as an Inter-professional Team Member:**

Interact appropriately with other members of a healthcare team. The student must demonstrate the ability to deliver patient-centered care as members of an inter-professional team, emphasizing evidence-based practice, quality improvement approaches, and informatics. The student must also be able to assess how well the group functions as a team.

### **1.2. Perform Patient Assessments**

The student must demonstrate the ability to collect patient data (e.g., a medication history, the medical chart, and laboratory data) and assess a patient's health status. The goal of performing this patient assessment is to prevent, identify, and solve medication-related problems.

### **1.3. Conduct Drug Therapy Reviews**

The student must demonstrate the ability to successfully review a medication profile or medication administration record and identify medication-related problems

### **1.4. Demonstrate Written/Verbal Communication**

The student must demonstrate the ability to communicate a variety of pharmacotherapy topics and issues. Furthermore, the student must demonstrate the ability to perform this competency both verbally and in writing. For example, students are expected to demonstrate the ability to write drug evaluations and articles reviewing drug therapy topics. Students are also expected to demonstrate the ability to verbally present pharmacotherapy content/topics and discuss the topic with the audience.

### **1.5. Monitor for Endpoints**

The student must demonstrate the ability to establish for a patient the therapeutic goals or endpoints that indicate the patient's medication problem is either resolved, cured, or managed. The student must then demonstrate the ability to monitor the patient over time and assess when the endpoints are achieved. If the patient is not achieving the desired endpoints, the student must demonstrate the ability to modify the therapeutic plan or endpoints so that the patient's quality of life is optimized.

### **1.6. Perform Pharmacokinetic Monitoring**

The student must demonstrate the ability to apply pharmacokinetic concepts in establishing a therapeutic regimen when a patient is receiving a drug that has a narrow therapeutic range. Specifically, the student must demonstrate the ability to design a dosage regimen based on population pharmacokinetic parameters and when serum drug levels are available, assess whether



the current regimen is providing the desired effect. If the current regimen is not optimized, the student must demonstrate the ability to utilize both population and patient-specific pharmacokinetic parameters in order to optimize the patient's medication regimen (e.g., dose and interval).

### 1.7. Use Systems Management to Improve Therapeutic Outcomes

The student must demonstrate the ability to manage a medication distribution system and informatics so that therapeutic outcomes are optimized. For example, the student must demonstrate the ability to resolve potential and actual medication errors and develop strategies for preventing future occurrences.

**1.8. Learning Outcomes for APPE Rotations** in domains of learning, assessment methods and teaching strategy recommended by National Commission for Academic Accreditation and assessment (NCAAA), Saudi Arabia.

### Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
<b>1.0</b>	<b>Knowledge</b>		
<b>1.1</b>	Participate in the drug use decision-making process with pharmacists, physicians, other health care professionals, nursing, dietitians, Operation theatre staff and patients and to optimize patient specific drug therapy.	APPE rotation	<ul style="list-style-type: none"> <li>• Case presentations</li> <li>• Case discussions</li> <li>• Journal clubs</li> <li>• Assignments</li> </ul>
<b>1.2</b>	Apply knowledge of pertinent chemical, physical, pharmaceutical and pharmacological properties of drugs as they are related to drug disposition, stability and handling when evaluating therapeutic regimens.	APPE rotation	<ul style="list-style-type: none"> <li>• Case presentations</li> <li>• Case discussions</li> <li>• Journal clubs</li> <li>• Assignments</li> </ul>
<b>1.3</b>	Present patients in a problem-oriented approach, highlighting each pharmacotherapy problem, drug therapy, monitoring parameters and endpoints of therapy.	APPE rotation	<ul style="list-style-type: none"> <li>• Case presentations</li> <li>• Case discussions</li> <li>• Journal clubs</li> <li>• Assignments</li> </ul>
<b>1.4</b>	Discuss the daily encountered problems in critically ill patients and the treatment options accordingly.	APPE rotation	<ul style="list-style-type: none"> <li>• Case presentations</li> <li>• Case discussions</li> <li>• Journal clubs</li> <li>• Assignments</li> </ul>
<b>1.5</b>	Demonstrate knowledge and skills in Critical Care Pharmacotherapy, fluid electrolyte balance, cardiovascular, hemodynamic and nephrological parameters and use of ventilators in critically serious patients.	APPE rotation	<ul style="list-style-type: none"> <li>• Case presentations</li> <li>• Case discussions</li> <li>• Journal clubs</li> <li>• Assignments</li> </ul>



<b>2.0 Cognitive Skills</b>			
<b>2.1</b>	Perform therapeutic drug monitoring in critically ill patients for aminoglycosides, vancomycin, phenytoin, digoxin and all drugs having narrow therapeutic index and which have a major effect on kidney and liver function of a patient.	APPE rotation	<ul style="list-style-type: none"> <li>• Case presentations</li> <li>• Case discussions</li> <li>• Journal clubs</li> <li>• Assignments</li> </ul>
<b>2.2</b>	Understand the prevention and treatment of complications in the critically ill patient after antimicrobial, anesthetic or anticoagulant therapies.	APPE rotation	<ul style="list-style-type: none"> <li>• Case presentations</li> <li>• Case discussions</li> <li>• Journal clubs</li> <li>• Assignments</li> </ul>
<b>2.3</b>	Reviewing, monitoring, and optimizing pharmacotherapy of the selected patients.	APPE rotation	<ul style="list-style-type: none"> <li>• Case presentations</li> <li>• Case discussions</li> <li>• Journal clubs</li> <li>• Assignments</li> </ul>
<b>2.4</b>	Monitor and observe glycemic control, deep vein thrombosis, prophylactic treatment, stress, ulcer prophylaxis, prevention of ventilator associated pneumonia, sepsis, etc.	APPE rotation	<ul style="list-style-type: none"> <li>• Case presentations</li> <li>• Case discussions</li> <li>• Journal clubs</li> <li>• Assignments</li> </ul>
<b>2.5</b>	Identify and solve the Drug Related Problems of the cases of critically ill patients.	APPE rotation	<ul style="list-style-type: none"> <li>• Case presentations</li> <li>• Case discussions</li> <li>• Journal clubs</li> <li>• Assignments</li> </ul>
<b>2.6</b>	Identify the approach for sepsis management	APPE rotation	<ul style="list-style-type: none"> <li>• Case presentations</li> <li>• Case discussions</li> <li>• Journal clubs</li> <li>• Assignments</li> </ul>
<b>2.7</b>	Discuss the importance of drug toxicity in the ICU, including anti-psychotics, anesthetics, and sleep aid medications	APPE rotation	<ul style="list-style-type: none"> <li>• Case presentations</li> <li>• Case discussions</li> <li>• Journal clubs</li> <li>• Assignments</li> </ul>
<b>3.0 Interpersonal Skills &amp; Responsibility</b>			
<b>3.1</b>	Demonstrate the ability to interact with patients or patient carers in a manner consistent with the patient's age, level of understanding, physical disabilities, or other barrier's common to the critical care environment.	APPE rotation	<ul style="list-style-type: none"> <li>• Case presentations</li> <li>• Assignments</li> </ul>
<b>4.0 Communication, Information Technology, Numerical</b>			
<b>4.1</b>	Communicate both patients and health care providers	APPE rotation	<ul style="list-style-type: none"> <li>• Case presentations</li> <li>• Assignments</li> </ul>
<b>4.2</b>	Interview patients and take the medication history	APPE rotation	<ul style="list-style-type: none"> <li>• Case presentations</li> <li>• Assignments</li> </ul>
<b>4.3</b>	Effectively communicate therapeutic interventions to other members of the health care team	APPE rotation	<ul style="list-style-type: none"> <li>• Case presentations</li> </ul>

			<ul style="list-style-type: none"> <li>• Assignments</li> </ul>
4.4	Assess patient medications and provide medication reconciliation for diabetic, asthmatic and hypertensive patients	APPE rotation	<ul style="list-style-type: none"> <li>• Case presentations</li> <li>• Assignments</li> </ul>
5.0	<b>Psychomotor</b>		
5.1	Review the process of checking medication orders	APPE rotation	<ul style="list-style-type: none"> <li>• Case presentations</li> <li>• Assignments</li> </ul>
5.2	Identify and prevent all clinically significant drug interactions	APPE rotation	<ul style="list-style-type: none"> <li>• Case presentations</li> <li>• Assignments</li> </ul>
5.4	Provide drug information and pharmaceutical services to medical clinical staff and patients	APPE rotation	<ul style="list-style-type: none"> <li>• Case presentations</li> <li>• Assignments</li> </ul>

### Responsibilities of the Preceptor

1. At the beginning of the rotation, communicate with students about expectations of internship and standards of evaluation.
2. Orient the students about the laws and regulations of the practice site and discipline and ethics of the professional practice.
3. Delegate to students, his/her defined duties, with appropriate supervision and direction, but **never** use students as substitution for regular staff.
4. Familiarize precisely with the internship manual's contents, rules and instructions about rotations and student evaluations.
5. Encourage the student's to read, search, and communicates with others in all practice site aspects and clinical training.
6. Maintain proper attendance of students to make it sure that students observe punctuality of time (daily attendance, medical team rounds, and any other clinical activities).
7. Determine student's competency based on his/her daily log profile and through a frequent discussion with students and help their concerns.
8. Respect confidentiality of student's internship information.
9. Be available at reasonable times for teaching and evaluation of the students.
10. Communicate with the rotation supervisor or internship supervisor directly or through the coordinators for the progress of student's APPE or any circumstances.

## **DESCRIPTION OF APPE ACTIVITIES**

### **2.1. General activities**

During APPE rotations, each student is assigned to preceptor in the pharmacy practice. During hospital pharmacy rotations, students are required to attend in various disciplines of hospital pharmacy practice and learn the policy and procedure for safe and effective delivery of pharmaceutical care. In addition, during clinical rotations, student participates in clinical round, reviews patient records, provides drug information to physicians and other health care providers and participates in clinical meetings with preceptor to learn more about clinical activities.

### **2.2. ROTATION DETAILS:**

#### **2.2.1. Critical Care rotation**

The aim of this internship is to prepare the intern with knowledge base and problem solving skills relating to the management of critically ill patients with pharmaceutical care perspective.

##### **(a) Rotation Specific Learning Objectives:**

Upon completion of this rotation, students should be able to:

1. Participate in the drug use decision-making process with pharmacists, physicians, other health care professionals, nursing, dieticians, Operation theatre staff and patients and to optimize patient specific drug therapy.
2. Apply knowledge of pertinent chemical, physical, pharmaceutical and pharmacological properties of drugs as they are related to drug disposition, stability and handling when evaluating therapeutic regimens
3. Present patients in a problem-oriented approach, highlighting each pharmacotherapy problem, drug therapy, monitoring parameters and endpoints of therapy.
4. Discuss the daily encountered problems in critically ill patients and the treatment options accordingly.
5. Demonstrate knowledge and skills in Critical Care Pharmacotherapy, fluid electrolyte balance, cardiovascular, hemodynamic and nephrological parameters and use of ventilators in critically serious patients.
6. Perform therapeutic drug monitoring in critically ill patients for aminoglycosides, vancomycin, phenytoin, digoxin and all drugs having narrow therapeutic index and which have a major effect on kidney and liver function of a patient.
7. Understand the prevention and treatment of complications in the critically ill patient after antimicrobial, anesthetic or anticoagulant therapies.
8. Reviewing, monitoring, and optimizing pharmacotherapy of the selected patients.
9. Monitor and observe glycemic control, deep vein thrombosis, prophylactic treatment, stress, ulcer prophylaxis, prevention of ventilator associated pneumonia, sepsis, etc.
10. Identify and solve the Drug Related Problems of the cases of critically ill patients.

11. Identify the approach for sepsis management
12. Discuss the importance of drug toxicity in the ICU, including anti-psychotics, anesthetics, and sleep aid medications
13. Identify the criteria to discharge patients to the ward.

**(b) Health care planning and medication therapy management**

1. Collect, organize, and evaluate patient specific information from various sources.
2. Apply disease state knowledge to individual patients to evaluate existing medication therapies.
3. Integrate health promotion and disease prevention measures into patient health care plans.
4. Recognize social/economic issues that affect drug therapy and potential solutions.
5. Communicate with patients and health care providers to make interventions to improve care.
6. Organize patient information into a SOAP note format for documentation of patient interactions and patient care interventions according to rotation site procedures.

**(c) Patient care**

1. Educate patients regarding disease states, therapies, and required monitoring and follow-up care.
2. Perform monitoring activities to assess efficacy and potential toxicity of drug therapies.
3. Demonstrate effective communication skills for interviewing/counseling patients.
4. Respond appropriately to drug information inquiries from other health care providers.
5. Document patient care activities according to procedures at rotation site.

**(d) Disease State/Therapeutic Knowledge**

1. Demonstrate knowledge of medical conditions commonly encountered in ambulatory care settings. If the rotation site is a specialty clinic, students should demonstrate knowledge of the disease states pertinent to that particular clinic.
2. Recognize situations in which therapies usually recommended for a particular condition are not appropriate for an individual patient and evaluate alternatives.
3. Identify areas in disease state management in which pharmacists may most positively impact patient care.
4. Demonstrate knowledge of current immunization practices/recommendations.

**(e) Clinic Management**

1. Demonstrate knowledge of billing procedures applicable to pharmacy services.
2. Demonstrate knowledge of third party payer issues pertinent to pharmacy practice, including formulary and prior authorization procedures.
3. Understand working structure of the clinic including functions of all clinic personnel and their relationships to each other and the pharmacist.

## 2.2.2. Drug and Poison Information

### **(a) Goal:**

The fundamental goal of this rotation is to understand the principle of drug and poison information center and the role of a pharmacist as drug information provide and to know the required processes and materials to establish drug Information center or service.

### **(b) Learning Objectives:**

1. Differentiate between primary, secondary and tertiary literature that are usually used in answering drug and poison information requests and secondary literature Including IDIS (IOWA system), MICROMEDEX, Medline, and Internet.
2. Identify the strengths and weaknesses of available resources (primary, secondary and tertiary references) and select the appropriate resources/databases.
3. Recognize various types of requests and the required background information that should be extracted for each type.
4. Prepare drug monographs as a part of the student experience in conducting performing drug and poison information services.

## 2.2.3. Internal Medicine rotations (1 and 2)

### **(a) Goal:**

To prepare the student with knowledge base and problem solving skills relating to the management of patients with pharmaceutical care perspective.

### **(b) Rotation specific learning objectives:**

Upon completion of this rotation, students should be able to:

1. Given a particular disease state, describe its pathophysiology, clinical presentation, diagnosis, and provide a treatment plan based upon evidence based medicine.
2. Evaluate the significance of a patient's pharmacokinetic parameters when determining an appropriate drug therapy.
3. Provide appropriate monitoring parameters for the chosen treatment plan (including efficacy, toxicity, side effects, and potential drug interactions).
4. Effectively communicate the drug treatment plan to the patient with the appropriate precautions and expectations.
5. Effectively communicate therapeutic interventions to other members of the health care team.
6. Provide adequate documentation and literature support for therapeutic recommendations.
7. Evaluate the quality of the literature utilized in making recommendations.

8. Utilize basic physical assessment skills to evaluate patients.
9. Discuss or demonstrate the administration of intramuscular, subcutaneous, intravenous, rectal, inhaled, and topical medications.
10. Describe and demonstrate the role and function of a clinical pharmacist in the cardiology team to provide optimal patient care
11. Assess patients with cardiovascular disease (correlating pathophysiology, status, clinical presentation, lab information, etiology, and risk factors).
12. Evaluate medication regimens and design therapy plan for patients with acute and chronic cardiovascular diseases.
13. Optimize the outcomes of patients with acute and chronic cardiovascular disease in various settings through the expert provision of evidence-based and patient-centered medication therapy.
14. Manage and improve the medication-use process for patients with or at risk for cardiovascular disease and identify when interventions are needed.
15. Educate patients and other health-care professionals regarding cardiovascular therapy.
16. Gain experience in dealing with patients, physicians, nursing and other health care providers.
17. Demonstrate leadership and practice management skills.
18. Apply the knowledge of diagnosis, classification and presentation of diabetes to patients
19. Apply the knowledge of pharmacological and non-pharmacological management of patients with diabetes
20. Take medication histories from patients with diabetes
21. Understand multidisciplinary approach to manage patients with diabetes

#### **2.2.4. Infectious diseases and epidemiology**

##### **(a) Goal**

To prepare the student with a knowledge base and problem solving skills relating to the treatment of infectious diseases with antimicrobial agents with a pharmaceutical care perspective

##### **(b) Objectives**

Upon completion of this rotation, the student shall be able to:

1. Plan for the therapeutic management of common infectious diseases with demonstration of strong knowledge base in physical findings pathophysiology, diagnostic procedure, and laboratory tests.
2. To round with the general ID consult service, evaluation of all the patients the team is following which includes patient assessment and design of evidence-based pharmacotherapeutic regimens, and appropriate monitoring and follow up.
3. To perform pharmacokinetic based dosing of Aminoglycosides and Vancomycin.
4. To discuss with preceptor about the management of common infectious diseases encountered in their hospital setting; such as community acquired and hospital associated pneumonias, urinary tract infections, endocarditis, meningitis, catheter related blood stream infections, intra-abdominal infections, and opportunistic infections.



## 2.2.5. General Pharmacy practice rotation

### **(a) Goal:**

The fundamental goal of this rotation is to provide students experiences and interactions with health care consumers, pharmacists, pharmacy technicians and other health care providers in community and institutional settings. Under appropriate supervision students start to develop their knowledge and skills regarding dispensing functions and regulations, to provide the opportunity to explore the health care team approach to patient care, the role of pharmacists in professional decision making, how the pharmacist and staff supports the well-being of the patient and start to develop clinical skills through direct patient care activities in institutional and community pharmacy settings. In addition, students gain exposure to different practice settings and career options.

### **(b) Learning Objectives:**

1. Students shall understand the philosophy of the pharmacy department and its role in patient care.
2. Students shall be able to define and describe the role and function of members within the pharmacy department
3. Students shall demonstrate and understand pharmacy operations:
  - a. Medication orders, b. Order processing, c. Automated medication systems, d. Inspection and filling of medication storage units and e. Inventory Management
4. Students shall observe, understand and demonstrate medication administration in the institutional setting including:
5. Medication administration records Narcotic count sheets Injectable administration Intravenous (IV), Intramuscular (IM), Subcutaneous (SQ) Oral administration
6. Students shall demonstrate and understand: Sterile products compounding
  - a. Understand and apply aseptic techniques b. Demonstrate the ability to complete calculations c. Know how to find information related to:  
IV compatibility, IV stability and IV expiration
7. Students should observe and understand the clinical Services:
  - a. Medication monitoring b. Dosing c. Therapeutic recommendations d. Medication Reconciliation e. Patient education and discharge counseling g. Medication Error reporting
8. Understand the Functional Role of the Pharmacy and Therapeutics (P&T) Committee and other professional committees
9. Learn the difference between pharmacy practice in the hospital setting and in the community setting.
10. Know the difference between the role of pharmacist and technician in each sitting.
11. Practice communication with patients, staff and other health care providers.
12. Consolidate a convincing knowledge of drug available in the market (trade/generic names, dosage forms, strengths and uses) and communicating that knowledge with other health care member.

13. Learn the process of inventory management such as how to order, stock and handle different types of medications.
14. Practice processing patient's prescriptions correctly, including the following reading, interpreting and calculating doses.
15. Earn the ability to counsel patients about their prescription using simple terms.
16. Discuss ethical decisions in pharmacy practice such as patient confidentiality and emergency situations.
17. Review pharmacy law and the role of policy and procedure in the institution.

**(c) Requirements:**

Student must work for a day-time within the institution, including one -hour prayer/lunch break, 5 days a week for 5 weeks. If the student needs to leave early (before finishing the working day), a permission from the preceptor is needed.

Students must fulfill all the objectives during the work time.

**(d) Required/Recommended Preparation**

OTC drugs review

Patient counseling on most common chronic diseases medications (e.g diabetes, hypertension and Asthma...)

**(e) Student activities:**

During each 5 weeks of general pharmacy practice rotation, the student must prepare and keep a record of the following activities:

**Week 1 activity:**

Select 10 different most commonly anti-hypertensive medications and write down their trade names, prices, important counseling points on how to take these medications, side effects, drug interactions, cautions and storage.

**Week 2 activity:**

Develop a comparison sheet of the 10 most commonly dispensed OTC products, their active ingredients, trade names, uses, prices, side effects, drug interactions, cautions and storage.

### **Week 3 activity:**

Develop a list of 5 Look-A-Like, and five Sound-A-Like medications available at the pharmacy and suggest ways to enhance safety with such medications.

### **Week 4 activity:**

Screen and keep a prescription record of at least 10 patients. Prescription record should include age, gender, allergy information, diagnosis, name of medicine prescribed, dosage, strength and points of counseling for the patients.

### **Week 5 activity:**

Report the four weeks activities. Besides, it includes Exams and Evaluation

### **(f) Additional Goals & activities**

In addition, the students should be able to:

#### **1. Understand the process of medications distribution, dispensing, and compounding in the setting of hospital pharmacy.**

##### **Activities:**

- i. Receive and interpret prescriptions (order entry).
- ii. Assess a prescription for efficacy and safety (order verification).
- iii. Compare medication products against labels for accuracy (check)
- iv. Perform and demonstrate compounding and labeling procedures.
- v. Participate in discussions with preceptor regarding stability and other compounding issues
- vi. Follow a prescription process from beginning to end

#### **2. Practice basic pharmaceutical care skills.**

##### **Activities:**

- i. Dispense prescriptions to patients with counseling/education under appropriate supervision
- ii. Prepare and deliver patient education brochures or other materials.
- iii. Answer drug information questions from patients, care givers, preceptor and other health care professionals
- iv. Conduct patient medication interview with proper documentation to assess patient medication needs and identify any drug related problems

**3. Demonstrate familiarity with brand and generic drug names, appearance, manufacturer, dosage form (s), and route of administration and therapeutic class for commonly-used drugs, including OTC products (active ingredients and common use).**

**Activities:**

- i. Participate in inventory check
- ii. Maintain a list of medications processed on daily basis comparing generic and brand names, therapeutic class, and use for each medication.
- iii. Prepare a simple drug monograph, or drug class presentation
- iv. Preceptor may give student an unknown tablet/capsule/product to identify
- v. Participate in discussions with preceptor regarding common OTC, herbal products.

**4. Perform calculations required in community/primary care pharmacy practice with accuracy and in a timely manner.**

**Activities:**

- i. Involve the student in the most commonly encountered calculations at the site (For example: Insulin, Vitamin D, pediatric doses, etc).
- ii. Give the student a calculation quiz
5. Address issues related to medication safety.

**Activities:**

- i. Identify and address one patient safety issue at the site
- ii. Discuss patient safety issues and/or ADR events with the preceptor
- iii. Discuss methods used at the site to report adverse drug events

**6. Understand laws governing the practice of primary care/ community pharmacy**

**Activities:**

- i. Read site policy and procedure
- ii. Involve student in opening and closing the pharmacy
- iii. Discuss personnel/staff management issues with preceptor.
- iv. Discuss the process of dispensing and managing narcotic medications

**7. Exhibit good communication skills during interactions with preceptors, patients, coworkers, and other health care professionals at the site.**

**Activities:**

- i. Observe preceptor's communication with patients and healthcare professionals
- ii. If appropriate, communicate with physician to clarify a prescription order
- iii. Participate in activities to market and promote pharmacy services
- iv. Participate in discussions with preceptor regarding a common practice issue and suggest a resolution
- v. Inter-professional presentations (e.g. nurses, medical interns)
- vi. Participate in health promotion activity at the site

## **8. Display a positive attitude about the practice of pharmacy, the ability to solve problems and responsibility towards improving self- learning.**

### **Activities:**

- i. Writing articles for local papers, internal site circulation.
- ii. Attending and reporting on pharmacy related professional meetings at the site.
- iii. Requesting the student to develop their own competency list and identify essential areas of development that he/she needs to work on and help student find the best ways to improve.

## **9. Demonstrate a high standard of professional behavior (i.e., adhering to established work schedule, minimizing absences, respecting fellow colleagues).**

### **Activities:**

- i. Punctuality, respectfulness, confidence and wearing appropriate attire
- ii. Behavior in an ethical manner, maintaining confidentiality, and demonstrating accountability.
- iii. Acceptance and application of constructive criticism.
- iv. Demonstrating time management skills.
- v. Demonstrating ability to drive his (her) own learning.

### **2.2.6. Oncology and Hematology rotation**

#### **(a) Goal**

The rotation will provide the student with the opportunity to develop skills in therapeutic management

of oncology and hematology patients, including pharmaceutical as well as supportive care.

#### **(b) Objectives**

1. Formulate a strategy that effectively establishes a patient- centered pharmacist-patient-caregiver relationship.
2. Collect and organize all patient-specific information needed by the oncology pharmacist to anticipate, prevent, detect, and/or resolve medication- related problems and to make appropriate evidence-based, patient-centered medication therapy recommendations as part of the oncology interdisciplinary team.
3. Specify therapeutic goals for an individual with cancer incorporating the principles of evidence-based medicine that integrate patient- specific data, disease and medication-specific information, ethics, and quality-of- life considerations.
4. Design a patient-centered, evidenced-based monitoring plan for a therapeutic regimen that effectively evaluates achievement of individual with cancer-specific goals.
5. Use effective patient education technique to provide counseling to individuals with cancer and caregivers, including information on medication therapy, adverse effects, compliance, appropriate use, handling, storage, and medication administration.

6. Accurately assess the progress toward the therapeutic goal(s) of an individual with cancer.
7. Demonstrate a commitment to advocacy for optimal pharmaceutical care of individuals with cancer through the assertive and persuasive presentation of patient care issues to members of the health care team, the patient, and/or the patient's caregivers.

### 2.2.7. Pediatrics Rotation

#### (a) Goal:

To prepare the intern with knowledge base and problem solving skills relating to the management of pediatric patients with pharmaceutical care perspective.

#### (b) Learning objectives:

1. Demonstrate a convincing knowledge of the selected pediatric diseases, including pathophysiology, signs and symptoms, clinical manifestations, common laboratory findings as well as complicating factors.
2. Understanding and applying the principles and application of pediatrics drug therapy to Monitor patient's progress with regard to pharmacokinetics, nutrition, individualized dosing for the pediatric and neonatal patients, to achieve the outcomes of pharmaceutical care.
3. Participate in the drug use decision-making process with pharmacists, physicians, other health care professionals, and patient's family.
4. Recognize the drug therapy problems related to pediatrics patients.
5. Calculate the pediatric dosing protocols and regimens.
6. Discuss the latest guidelines and evidence based pharmacy while evaluating the therapeutic care plan and choice of drugs related to pediatric treatment.
7. Develop a pharmaceutical care Plan for pediatric patients with different disorders under a therapeutic program

## 2.3. Journal club presentation to the preceptor

### 2.3.1. Journal club information & requirement

It is completely depending on the preceptor choice to consider journal club activity during APPE rotations. Following is the main information about journal club.

### 2.3.2. Definition of Journal Club

Journal Club is an opportunity for students to learn the principles of evidence-based practice through posing a clinical question, literature searching and critical appraisal. Additionally, it offers the opportunity to hone presentation skills and receive feedback within an informal forum. The format of Journal Club is group, problem-based learning in which a presenter delivers a structured interactive presentation. The content of the presentation is the critical appraisal of a research paper with the option of using a recognized appraisal tool e.g. CASP. The aim is to challenge current practice and determine whether the research evidence supports a change in practice. Appraisal is continued by the group discussion which follows and may conclude by determining whether current practice should be altered in light of the presenter's findings.

### 2.3.3. Objective of Journal club

Clinical pharmacist should be able to make a decision in therapy planning. Evidence-based medicine (EBM) integrates current best research evidence with clinical experience and thus aids decision-making in patient care.

### 2.3.4. Guidance for the Presenter

Ideally presenters should start to prepare approximately four weeks prior to Journal Club. There are five stages to follow:

1. Identify a knowledge gap and frame a clinical question
2. Literature search for best evidence to answer that question
3. Appraise the evidence and select a paper which comes closest to providing an answer to the clinical question.
4. Prepare the presentation and present the findings at Journal Club

### 2.3.5. Identify a knowledge gap and frame a clinical question

The first step in EBM is to define a structured clinical question. The question should arise from clinical practice. Using the PICO acronym will help you organize your query into a searchable question. In addition to the PICO elements of your clinical question, it's important to know: – what TYPE of question you are asking and what is the best STUDY DESIGN to search for to find evidence that answers your clinical question.



**P.I.C.O. Model for Clinical Questions:**

P	Patient or Population	How would I describe a group of patients similar to mine?
I	Intervention	Which main intervention, prognostic factor, or exposure am I considering?
C	Comparison	What is the main alternative to compare with the intervention? (if applicable)
O	Outcome	What can I hope to accomplish measure, improve or affect?
D	Type of question and study design	Therapy/Treatment, Diagnosis, Prognosis, Harm / Aetiology. What would be the best study design?

## HOW TO ORGANIZE A JOURNAL CLUB

### Journal Club Guidelines

#### Article selection

- Article should relate to a pharmaceutical topic. This topic should not be one that the student has already discussed for a formal case presentation or topic discussion.
- Article must describe a study that includes sections that describe the authors' methods and results in detail.
- Article must be from a peer-reviewed, medical journal
- Article should have been published recently (within 1-2 years).
- Provide copies to the preceptor & other students 2 days prior to the presentation.
- Be familiar with related trials, methods of measurement

#### Format of presentation

- Presentation should be 15-20 minutes long, with an additional 10 minutes for questions

Title, authors, authors' affiliation, journal, date	
Purpose:	
Methods: <ul style="list-style-type: none"> <li>• Design</li> <li>• Population</li> <li>• Outcome measured</li> <li>• Inclusion/exclusion criteria</li> <li>• Statistics used</li> </ul>	
Results:	
Limitations:	
Conclusion:	

#### Evaluation and critique of the journal

##### 1. Article selection:

- Is it important regarding the field?

- Are the results generalizable or limited to a specific patient population?
- Is it applicable to your patient in the field?
- Is the journal reputable and impacted?

## 2. Title & investigators

- Does the title suitable and accurately reflect the study?
- What are the author affiliations? Are there any conflicts of interest?
- Do the authors have other publications in this area?
- Have the authors published other articles related to this study?

## 3. Study funding

- Who funded the study?
- Are there any conflicts of interest?

## 4. Human research review board approval

- Was the study approved by a human research review board?

## 5. Introduction and background

- Do the introduction and background provide enough information to justify doing the study?

## 6. Study design

- What is the study design?
  - Randomized or nonrandomized
  - Controlled or open label
  - Unblinded, single-blinded, or double-blinded
  - Single center or multicenter
  - Prospective or retrospective
  - Placebo controlled or active comparison
  - Crossover or parallel
  - Phase I, II, III, or IV
- Is the study design appropriate for the study objectives?
  - What are the study objectives?
  - What are the primary and secondary end points?
- What are the study subjects (internal & external validity)?
  - How many?
  - What are the inclusion criteria?
  - What are the exclusion criteria?

## 7. Data analysis

- Was the study appropriately analyzed?
- Was the study data analyzed descriptively or analytically
- Are statistically significant results clinically relevant?

## 8. Results and discussion

- Are results for all study objectives provided?
- Are the results supported by the data?
- Are the tables and graphs accurate representations of the study data and results?
- Are the study strengths and weaknesses appropriately identified and described?
- Does the discussion place the results in context with previously published information?

## 9. Conclusion

- Is the conclusion is appropriate and supported by the facts?

## 10. Other

- What are the limitations of the study?

## HOW TO ORGANIZE THE CASE STUDY PRESENTATION

The student should possess a thorough knowledge of the disease affecting the patient and its treatment. The case presentation consists of the following parts. Evaluation is based upon how well each portion is presented.

### **A. REVIEW OF THE DISEASE**

It is important that the student explain the basic underlying lesion and how it is amenable to drug therapy. Additionally, a good discussion of the disease state should include the following:

Incidence	Signs and Symptoms
Etiology	Manifestations & complications
Pathology & Pathophysiology	Parameters used to assess status
Parameters indicating cure	Physiology
Prognosis	Laboratory diagnosis
	Management & pharmacological treatment

### **B. THE PATIENT'S CASE**

Here is a format to follow in presenting the patient's case:

#### 1) **Chief Complaint (CC)**

Briefly state the major reason why the patient is seeking medical care (do not confuse with HPI).

#### 2) **History of Present Illness (HPI)**

List the sequence of events leading to the medical problem mentioned in chief complaint. In chronologic order, describe original onset of symptoms, treatment used and patient response to most recent problems. Restrict the length of this section.

#### 3) **Past Medical History (PMH)**

List other medical problems and the prescribed therapeutic regimen. List all other medications taken routinely and their indication. List drug sensitivities/allergies.

#### 4) **Social History (SH)**

Relevant information pertaining to cigarette smoking, alcohol consumption, drug abuse, etc.

#### 5) **Family History (FM)**

Relevant diseases of parents, siblings, etc.

#### 6) **Review of Systems (ROS)**

List pertinent data (subjective data obtained by physician during patient interview) concerning body systems.

#### 7) **Physical Examination (PE)**

List abnormal physical findings; list normal findings pertinent to the patients' disease state - indicate as WNL (within normal limits).

#### 8) **Assessment**

List medical problems identified.

### 9) Plan

List the plan for medical management (if available in chart) for each problem.

### 10) Hospital Course

List the day-to-day activities of the patient's hospital stay. If the patient has been hospitalized for a long period of time, make a synopsis of the patient's hospital activities. Use the problem-oriented approach for each day or time period.

### 11) Auxiliary Information

If numerous laboratory data are presented, list the data on a "flow sheet" and not in the "hospital course" section. If the drug regimen is complicated or involved, list the medications separately with appropriate information, e.g., response, adverse effect, etc.

## C. CRITIQUE OF DRUG THERAPY

This is one of the most important aspects of the case presentation. The student should carefully evaluate the patient's drug therapy through accomplishing the following:

1. Explain the effect of drug therapy on the patient.
2. Draw conclusions about the appropriateness of drug therapy and document the efficacy of actual treatment by referring to specific current literature.
3. If therapy is ineffective or toxic, suggest alternatives.
4. Explain patient outcome as the student perceives it. Answer self-initiated questions such as: Was outcome the result of drug therapy? How would the outcome have been different if no drugs had been used? How might have the outcome changed if different drugs had been used?

### How can I deliver formal case presentation? (Please review pharmacy seminar course)

#### A. PRESENTATION

To make a professional presentation, student must exhibit the following characteristics

- 1) Organization of material
- 2) Knowledge of subject
- 3) Clarity of content
- 4) Enthusiasm for topic
- 5) Confidence in presentation

#### B. TIME

The presentation should be limited to 45 min. Approximate time distribution may be as follows: Review of the disease (15 min), Case (15 min) and Critique (15 min)

#### C. VISUAL AIDS

Visual aids are both encouraged and required. Slides, use of color, posters, tables, graphs, or drawings are encouraged. A handout for the audience is required. Included in the handout must be a reference list. It is very helpful to the audience to include an outline of the disease state and/or tables, graphs, or pictures that help to explain difficult concepts.

**References** are to be reported in the format that appears in major journals, such as the American Journal of Hospital Pharmacy or the New England Journal of Medicine.

## Appendix A

### General Forms

Patient confidentiality Statement

Absence Request Form

Record of Immunization Form



## **PATIENT CONFIDENTIALITY STATEMENT**

Faculty of Pharmacy, Tabuk University protects the confidentiality of all patient's health information, as required by law and the professional codes of ethics. Each student/preceptor has the responsibility to protect the confidentiality of patient's health information.

All patient's information, whether paper, verbal or electronic data, is confidential and shall not be discussed with individuals not directly involved in the care of the patient.

Examples of patient's information include, but are not limited to:

- Physical, medical and psychiatric records including paper, photo, video, diagnostic and therapeutic reports, laboratory and pathology samples;
- Patient insurance and billing records;
- Visual observation of patients receiving medical care or accessing services; and
- Verbal information provided by or about a patient.

I understand and acknowledge that:

1. I shall respect and maintain the confidentiality of all discussions, deliberations, patient care records
2. It is my legal and ethical responsibility to protect the privacy, confidentiality and security of all medical records.
3. I shall only access or the patient care information in the performance of my assigned.
4. My user ID is recorded when I access electronic records and that I am the only one authorized to use my user ID.

**I hereby acknowledge that I have read and understand the foregoing information and any Violation of the Confidentiality policy, including unauthorized use, disclosure, alteration or destruction of patient's health information will result in disciplinary action, up to termination from UT.**

Name:

Signature:

University ID:

Date:

## **Absence Request Form**

Student Name \_\_\_\_\_

APPE Site/Rotation \_\_\_\_\_

Number of days of absence included in this request: \_\_\_\_\_

Approval is requested for absence from rotation activities from \_\_\_/\_\_\_/\_\_\_\_\_

Through \_\_\_/\_\_\_/\_\_\_\_\_ for the reason indicated below:

### **REASON FOR ABSENCE**

\_\_\_\_\_ Illness \_\_\_\_\_

\_\_\_\_\_ Other Explanation:

\_\_\_\_\_ Death in Family

\_\_\_\_\_ Attend Professional Meeting

\_\_\_\_\_ Personal Reason

### **FURTHER REASON FOR ABSENCE CAN BE GIVEN HERE IF EXPLANATION IS REQUIRED.**

\_\_\_\_\_  
\_\_\_\_\_

Approval requested \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
(Student) (Date)

Approval \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
(Preceptor) (Date)

Approval \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
(College Coordinator ) (Date)

This form should be sent to the Pharmaceutical Training Unit. A copy should be kept on file with the preceptor.

**Record of immunization**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

National ID: \_\_\_\_\_

Hospital file number: \_\_\_\_\_

Address: \_\_\_\_\_

Phone \_\_\_\_\_

Birthdate: \_\_\_\_\_

**Investigations:**

**a) Virology:**

- i) VZV IGg:  -ve  +ve  
ii) Mumps IGg:  -ve  +ve  
iii) Measles IGg: :  -ve  +ve  
iv) Rubella IGg: :  -ve  +ve

NB.: If the results were –ve, will be repeated 1 month after vaccination

**b) Immunology:**

- i) Hep B sAg:  -ve  +ve  
ii) Hep B sAb: :  -ve  +ve  
iii) HIV: :  -ve  +ve  
iv) Hep C Ab: :  -ve  +ve

**c) TB skin test:**

- i) Mantoux test: :  -ve  +ve

If +ve, CBC, LVTs and Chest X-ray: .....

**Vaccination: (Date)**

- a) Tdap: .../.../.....  
b) Meningitis: .../.../.....  
c) Others (according to virology & immunology results)  
i. Hep B (3 doses): .../.../..... , .../.../....., .../.../.....  
ii. MMR (2 doses): .../.../..... , .../.../.....  
iii. Varicella (2 doses): .../.../....., .../.../.....  
iv. Rubella (one dose): .../.../.....

Physician Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Physician Name \_\_\_\_\_

Stamp:

Student Signature:

Date:

- 
- This form must be filled & returned to the Pharmaceutical Training Unit before the beginning of the rotations
  - This form may differ according to the affiliated hospital

## Appendix B

### Grading & assessment Forms

**Note:** Students should be familiar with the activities they will be evaluated in.

#### **Evaluation forms for specific tasks during rotations**

Case Presentation Evaluation Form .....	34
Journal Club Evaluation Form.....	35
Student-Patient Communication Evaluation Form.....	36
Patient assessment, Progress Notes and Therapeutic Drug Monitoring Form	37
Patient Assessment Form (for ambulatory care) .....	39
Grading policy .....	40

#### **Final rotation assessment forms**

Rotation Evaluation Form (Pharmacy Practice inpatient/outpatient .....	41
Rotation Assessment Form (General clinical rotation).....	43
Rotation Assessment Form (Internal Medicine) .....	45
Pharmaceutical Industry Assessment Form .....	47
Assessment form for Drug information .....	49
Other elected site-specific rotation.....	50
Student Evaluation on preceptor performance during APPE ..	51
Student self-assessment of skills .....	52

### Case Presentation Evaluation Form

Student name : .....

Rotation Title/Number: .....

Topic: ..... Date:        /        /       

**Assessment Scale**

<b>5 = Excellent</b>	Consistently performs at expected pharmacist level and displays attributes consistent with an excellent practitioner.
<b>4 = Very Good</b>	Very often performs at expected pharmacist level competency.
<b>3 = satisfactory</b>	Often at an expected pharmacist level. Displays attributes consistent with readiness to enter general practice
<b>2 = poor</b>	Rarely perform at the expected level for a pharmacist. Needs improvement to be ready to enter general practice
<b>1 = Deficient</b>	not applicable or no opportunity to evaluate during this rotation

Item	Marks (1-5)
1- Eye contact	
2- Note cards/notes	
3- Facial expression	
4- Composure	
5- Gestures/Distracting mannerisms	
6- Postures	
7- Enthusiasm/ vocal pitch	
8- Articulation/vocalized pauses/pronunciation of terms	
9- Rate of speech	
10- Volume	
11- Slide effectiveness	
12- Slide spelling and grammar	
13- References on slides	
14- Presentation matches objectives	
15- Opening statement relevant to audience	
16- Balanced representation of material	
17- Appropriateness of selected literature data	
18- Organization/presentation well planned and complete	
19- Application/conclusion of presentation	
20- Question answer ability	
<b>Total grade 100</b>	Total=.....

**To be included in the assessment forms:** total score                    /20 = ..... out of 5

**Evaluator/Preceptor name:** \_\_\_\_\_

**Position:** \_\_\_\_\_                    **Signature:** \_\_\_\_\_

**N.B:** This should be returned to the college of pharmacy (Pharmaceutical Training Unit)

### Journal Club Final Assessment Form

Presenter's Name: \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_

Evaluator's Name: \_\_\_\_\_

Journal /Article: \_\_\_\_\_

Journal Citation: \_\_\_\_\_

#### Assessment Scale

<b>5 = Excellent</b>	Consistently performs at expected pharmacist level and displays attributes consistent with an excellent practitioner.
<b>4 = Very Good</b>	Very often performs at expected pharmacist level competency.
<b>3 = satisfactory</b>	Often at an expected pharmacist level. Displays attributes consistent with readiness to enter general practice
<b>2 = poor</b>	Rarely perform at the expected level for a pharmacist. Needs improvement to be ready to enter general practice
<b>1 = Deficient</b>	not applicable or no opportunity to evaluate during this rotation

Item	Marks (1-5)
1- Time limit	
2- Format	
3- Clarity	
4- Delivery	
5- Language	
6- Follow Up	
7- Background	
8- Previous Trials	
9- Brief Summary	
10- Study Population	
11- Interventions	
12- Results/Statistics	
13- Author's Conclusions	
14- Critique	
15- Clinical Significance (Generalizable)	
16- References	
<b>Total grade 80</b>	Total=..... out of 80

**To be included in the assessment forms:** total score /16 = ..... out of 5

**Evaluator/Preceptor name:** \_\_\_\_\_

**Position:** \_\_\_\_\_ **Signature:** \_\_\_\_\_

**N.B:** This should be returned to the college of pharmacy (Pharmaceutical Training Unit)

### Patient Communication & Education Evaluation Form

Student Name: \_\_\_\_\_

Date:     /     /

General Intro/Opening/ ending	Score 0-10	Comments
1. Introduces him/herself to the Patient		
2. Greets patient by name		
3. Elicits patient's reason for visit using open-ended questions		
4. Reassuring the patient regarding the rationale of the visit.		

Comments: \_\_\_\_\_

Specific Case-Related Questions:	Score 0-10	Comments
1. Obtained patient's medication history (Rx, OTC, Herbal)		
2. Obtained patient's medical conditions		
3. Did the student explain the need and usage of each prescribed medication?		
4. How well did the student communicate?		
5. Was the student able to generate a specific drug question?		
6. Did the student respond satisfactorily to the needs & problems presented by the patient?		

Comments: \_\_\_\_\_

**Total score:** \_\_\_\_\_ out of 40 + \_\_\_\_\_ out of 60 = \_\_\_\_\_ %

**To be included in the assessment forms:** total score /20 = ..... out of 5

Preceptor Name: \_\_\_\_\_

Signature: \_\_\_\_\_

**Patient assessment, Progress Notes and Therapeutic Drug Monitoring Form for clinical medicine and hospital rotations**

PATIENT		CHART #	AGE	HT	WT	SEX	RM.#	PHYSICIAN(S)	INTERVIEWER	DATE					
ADMIT DATE		DISCH. DATE	DX			ALLERGIES/ ADRs		FUNCTIONL LIMITATINS							
/ /		/ /													
CC			HPI				FH/SH								
PAST MEDICAL HX			DRUG HX (PRESCRIPTION AND NON PRESCRIPTION ITEMS)				MED HX COMPLETE		PATIENT KNOWS MEDS						
							YES	NO	YES	NO					
							SOURCE OF RX HISTORY		COMPLIANCE						
							PT./ FAMILY/OTHER		GOOD	POOR					
									UNCERTAIN	ASSIST-ANCE					
DATE				TREATMENT PLAN				DATE				TREATMENT PLAN			
START	D/C	DRUG (DOSE/ROUTE(S)/FREQUENCY)				MONITOR		START	D/C	DRUG (DOSE/ROUTE(S)/FREQUENCY)				MONITOR	



**LABORATORY FLOW SHEET (INTERNAL MEDICINE)**

DATE		ELECTROLYTES	
BLOOD:		SODIUM	
HEMATOCRIT		POTASSIUM	
HEMOGLOBIN		CHLORIDE	
RBC X 10 <sup>6</sup>		CO <sub>2</sub>	
WBC		GLU, RANDOM	
POLYS		GLU, FAST	
BANDS		PHOSPHORUS	
LYMPHS		CALCIUM	
MONOS		MAGNESIUM	
EOS			
BASOS			
RETICS			
		<b>LIVER/CARDIAC:</b>	
PLTS X 10 <sup>3</sup>		TOTALPROT	
ESRCSR		ALBUMIN	
		BILI TOTAL	
PT RATIO		DIRECT	
PROTINE % ACT		ALK PT ASE	
PTT		CPK	
		LDH	
<b>URINALYSIS:</b>		SGOT	
SP.GR			
ALBUMIN			
SUGAR			
ACETONE			
BILE		<b>RENAL:</b>	
RBC		BUN	
WBS		URIC ACID	
CASTS		CREATININE	
<b>ABG:</b>		CREAT. CLEAR	
PH			
PCO <sub>2</sub>			
PO <sub>2</sub>			
HCO <sub>3</sub>			
BASE EXCESS			
O <sub>2</sub> SALT %			
<b>VITALS:</b>		<b>DIAGNOSTIC: X-RAY, ECG, ETC.</b>	
T			
BP			
P			
R			
IN			
OUT			
WT			
<b>C &amp; RESULTS:</b>			

Student name: ..... Preceptor Name: .....

Signature: \_\_\_\_\_

**Patient Assessment form (by student)**

**Pharmaceutical Services**

**Ambulatory care rotation**

**Clinic:**.....

**Name:**.....

**Consultant name:**.....

**Medical Record :**.....

**Date:**...../...../.....

**Date of birth:** ..../...../.....

**(Primary Reason for Clinic Visit CC)**

**Phone Number:** .....

**Problem List: (disease)**

1.

3.

2.

4.

**Social History:**.....

**Allergies: (1) Food:** ..... **(2) Drugs:** ..... **(3) Environment:** .....

**(4) Others:** ..... **(5) Explain:** .....

**Current Medications:**

Drug	Dosing Schedule	Comment

**Past Medications:**

Drug	Dosing Schedule	Comment

**Vital Signs: BP: HR: Temp: Weight:**

**Labs: .....**

**Notes & Observations: .....**

**Assessment: .....**

**Recommendations: .....**

**Patient Counseling: (Drugs, Instructions, etc.)**

**Additional Comments: .....**

**Follow up with:**.....

**Follow up date/time:**.....

**Time required for intervention:** .....

**Was intervention solicited? If so, by whom?**

**Student Name:**\_\_\_\_\_

**Preceptor Name:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

## Grading Policy

- Grading will be from 100 % according to the assessment forms.
- A student who fails to meet the minimum standards after multiple remediation attempts may be pulled from the experience. The minimum passing grade for each rotation is 60% on the final rotation assessment form.
- A mid-point evaluation of the professional experience (for each rotation) will be performed at the end of the 3<sup>rd</sup> week by the preceptor. The ratings that are given should be discussed with explanations in order that student understand which areas are of strength, and which areas need improvement in order to achieve a passing grade. It is extremely important that student ask for this initial evaluation early in the APPE. In the event that there are multiple areas of deficiency, a plan of improvement should be discussed with the preceptor. This is also an opportunity to re-direct the learning objectives and activities

**NB.: Rotation assessment forms should be filled and submitted TWICE, in midpoint (at the end of the 3<sup>rd</sup> week) and at the end of each rotation. Assessment Forms are adapted from University of Toronto, Leslie Dan Faculty of Pharmacy APPE manual**

## Rotation Evaluation Form (Pharmacy Practice inpatient/outpatient)

**Rotation:** ..... **Training Dates:** .....

**Student's Name:** ..... **ID:** .....

### Assessment Scale

<b>5 = Outstanding</b>	consistently perform as per expectations
<b>4 = Very Good</b>	very often performs as per expectations
<b>3 = satisfactory</b>	often performs as per expectations
<b>2 = poor</b>	rarely performs as per expectations
<b>1 = Deficient</b>	not applicable to evaluate

### I: General Skills & Abilities

Sr. No	Skills and Abilities	1	2	3	4	5
1	Demonstrates confidence, reliable and dependable; fulfills responsibilities; meets expectations					
2	Meets the standards for attendance and punctuality					
3	Prioritizes, completes and organizes tasks, assignments, and projects on time without prompting					
4	Is self-directed in undertaking tasks; self-motivated; initiates activities and demonstrates desire for self-improvement					
5	Accepts and applies constructive criticism; responds to feedback; modifies behaviors					

### II. Pharmacy Practice competency

Sr. No	Skills and Abilities	1	2	3	4	5
6	The student is able to evaluate the appropriateness and accuracy of a prescription					
7	The student is able to evaluate appropriateness of medication orders by correlating the order with patient-specific data and drug information					
8	The student is able to dispense medications in accordance with the professional and legal requirements					
9	The student is able to determine appropriate storage of compounded medications before and after dispensing					
10	The student is able to obtain accurate and comprehensive patient medication history					
11	The student is able to perform a basic review of a patient's medication profile to identify medication allergies, correct doses, duplicate medications, and important drug interactions					
12	The student is able to gather and accurately record a patient's health and medication information from his/her medical record					
13	The student is able to identify and prioritize a patient's drug-related problems					
14	The student is able to summarize key information related to the use of common medications					

15	The student is able to apply mathematical principles (e.g., accurately perform dose calculations, kinetics) in pharmacy practice						
16	The student is able to observe and describe proper procedures for dispensing sterile products						
17	The student is able to observe and describe special handling preparation and administration procedures for IV drug products (chemo, TPN, etc.)						
18	The student is able to demonstrate effective communication abilities in interactions with other healthcare providers						
19	The student is able to communicate with patients of differing social, and economic backgrounds						
20	The student is able to provide accurate response to drug information requests written and verbally						
21	The student is able to demonstrate/describe proper administration technique for various drug delivery systems (e.g., inhalers, etc.)						
22	The student is able to collect and interpret accurate drug information from appropriate sources to make informed, evidence based decisions						

**Instructions for score calculation**

Following is a list of items covering the pharmacy practice activities. Please read each item and evaluate the degree to which each item was covered. Then mark the appropriate —square indicating that the coverage of item is —Excellent, — Very Good, — Good, —Satisfactory, or —Poor. For calculation of the total score a five –point Likert scale response format ranging from — 1 = Poor to —5 = Excellent was chosen. The total score of each student is calculated according to the following formula:

$$T * F (0.91) = Y\%$$

Where T is the total score of the student

F is a factor (0.91)

Y is the percentage of student score.

$$\text{Score} = \dots \times 0.91 = \dots\%$$

**Other Comments**

**Specific strengths:**

- 
- 

**Specific areas need improvements:**

- 
- 

Preceptor’s Name: .....

Institution: .....

Preceptor’s Signature: .....

Date .....

### Rotation Assessment Form (General)

Intern's Name: \_\_\_\_\_ ID no : \_\_\_\_\_

Rotation title : \_\_\_\_\_ Rotation Dates: \_\_\_\_\_

#### Assessment Scale

<b>5 = Excellent</b>	Consistently performs at expected pharmacist level and displays attributes consistent with an excellent practitioner.
<b>4 = Very Good</b>	Very often performs at expected pharmacist level competency.
<b>3 = satisfactory</b>	Often at an expected pharmacist level. Displays attributes consistent with readiness to enter general practice
<b>2 = poor</b>	Rarely perform at the expected level for a pharmacist. Needs improvement to be ready to enter general practice
<b>1 = Deficient</b>	not applicable or no opportunity to evaluate during this rotation

#### I. GENERAL SKILLS AND ABILITIES

Check appropriate box

1	2	3	4	5	
					1. Demonstrates confidence, reliable and dependable; fulfills responsibilities; meets expectations
					2. Meets the standards for attendance and punctuality
					3. Prioritizes, completes and organizes tasks, assignments, and projects on time without prompting
					4. Is self-directed in undertaking tasks; self-motivated; initiates activities and demonstrates desire for self-improvement
					5. Accepts and applies constructive criticism; responds to feedback; modifies behaviors
					6. Acts in an ethical manner in accordance with professional code & in patient's best interest

#### II. CLINICAL MANAGEMENT / JUDGEMENT / KNOWLEDGE

Check appropriate box (see scale above)

1	2	3	4	5	
					7. Retrieves / interprets appropriate data from chart or other data bases
					8. Identify and evaluate drug related problems including ADR, drug interactions, drug therapy that needs optimization based on intra- individual variability (patient specific pharmacokinetic and pharmacodynamics data)
					9. Able to assess significance of identified drug-related problems and prioritize them
					10. Interprets lab values appropriately including normal ranges
					11. Integrates appropriate lab values into assessment of drug therapy
					12. Critically evaluates drug therapy
					13. Able to propose a rational, patient-specific therapeutic plan for problems
					14. Forms an opinion and makes specific recommendations for the patient
					15. Asks appropriate questions and follows-up to questions in an accurate and timely
					16. Able to alter recommendation appropriately based on new data
					17. Overall understanding of disease states is appropriate and applied
					18. Overall understanding of drug therapy is appropriate and applied
					19. Elicits a complete, accurate drug history from patient
					20. Demonstrates a knowledge of Evidence Based Medicine and Clinical guidelines for disease states common for this clinical setting and assess acute and chronic medical problems

### III. DRUG INFORMATION / ORAL-WRITTEN COMMUNICATION S KILLS

Check appropriate boxes (see scale above)

1	2	3	4	5	
					21. Communicates effectively with preceptor, other health care professionals and patients
					22. Effectively presents patient cases and discuss therapeutic topics to preceptor and peers
					23. Identifies and thoroughly evaluates current literature and other sources of drug

### IV. Assignment:

Check appropriate boxes (see scale above)

1	2	3	4	5	
					24. Evaluation of the assignment ( oral / written, homework )
Comments:					

**GRADE:**  $\frac{\text{Total score ( )} \times 20}{\text{Number of evaluated points ( )}} = \text{ \%}$

*\* Kindly note that the score of not applicable points should not be included in the calculation*

Passing score: 70 %

**Other Comments:**

**Specific strengths:**

- 
- 
- 

**Specific areas needing improvement:**

- 
- 

Preceptor's name : \_\_\_\_\_ signature \_\_\_\_\_ Date: \_\_\_\_\_

### Rotation Assessment Form (Internal Medicine)

Intern's Name: \_\_\_\_\_ ID no : \_\_\_\_\_

Rotation title : \_\_\_\_\_ Rotation Dates: \_\_\_\_\_

#### Assessment Scale

<b>5 = Excellent</b>	Consistently performs at expected pharmacist level and displays attributes consistent with an excellent practitioner.
<b>4 = Very Good</b>	Very often performs at expected pharmacist level competency.
<b>3 = satisfactory</b>	Often at an expected pharmacist level. Displays attributes consistent with readiness to enter general practice
<b>2 = poor</b>	Rarely perform at the expected level for a pharmacist. Needs improvement to be ready to enter general practice
<b>1 = Deficient</b>	not applicable or no opportunity to evaluate during this rotation

#### I. GENERAL SKILLS AND ABILITIES

Check appropriate box (see scale below)

1	2	3	4	5	
					1. Demonstrates confidence, reliable and dependable; fulfills responsibilities; meets expectations
					2. Meets the standards for attendance and punctuality
					3. Prioritizes, completes and organizes tasks, assignments, and projects on time without prompting
					4. Is self-directed in undertaking tasks; self-motivated; initiates activities and demonstrates desire for self-improvement
					5. Accepts and applies constructive criticism; responds to feedback; modifies behaviors
					6. Acts in an ethical manner in accordance with professional code & in patient's best interest

#### II. CLINICAL MANAGEMENT / JUDGEMENT KNOWLEDGE

Check appropriate box (see scale below)

1	2	3	4	5	
					7. Retrieves / interprets appropriate data from chart or other data bases
					8. Identify and evaluate drug related problems including ADR, drug interactions, drug therapy that needs optimization based on intra- individual variability (patient specific pharmacokinetic and pharmacodynamics data) in various subspecialty of internal medicine
					9. Able to assess significance of identified drug-related problems and prioritize them in various subspecialty of internal medicine
					10. Interprets lab values appropriately including normal ranges
					11. Integrates appropriate lab values into assessment of drug therapy
					12. Critically evaluates drug therapy
					13. Able to propose a rational, patient-specific therapeutic plan for problems in various subspecialty of internal medicine
					14. Forms an opinion and makes specific recommendations for the patient
					15. Asks appropriate questions and follows-up to questions in an accurate and timely
					16. Able to alter recommendation appropriately based on new data
					17. Overall understanding of disease states is appropriate and applied
					18. Overall understanding of drug therapy is appropriate and applied
					19. Elicits a complete, accurate drug history from patient
					20. Demonstrates a knowledge of Evidence Based Medicine and Clinical guidelines for disease states common for this clinical setting and assess acute and chronic medical problems in various subspecialty of internal medicine



**III. DRUG INFORMATION / ORAL-WRITTEN COMMUNICATION S KILLS**

Check appropriate boxes (see scale above)

1	2	3	4	5	
					21. Communicates effectively with preceptor, other health care professionals and patients
					22. Effectively presents patient cases and discuss therapeutic topics to preceptor and peers
					23. Identifies and thoroughly evaluates current literature and other sources of drug information and effectively apply this information to patient care

**IV. Assignment:**

Check appropriate boxes (see scale above)

1	2	3	4	5	
					24. Evaluation of the assignment ( oral / written, homework )
<b>Comments:</b>					

**GRADE:**  $\frac{\text{Total score ( )} \times 20}{\text{Number of evaluated points ( )}} = \text{ \%}$

*\* Kindly note that the score of not applicable points should not be included in the calculation*

Passing score: 70 %

**Other Comments:**

**Specific strengths:**

- 
- 
- 

**Specific areas needing improvement:**

- 

Preceptor's name : \_\_\_\_\_ signature \_\_\_\_\_ Date: \_\_\_\_\_

## Pharmaceutical Industry Assessment Form

Intern's Name: \_\_\_\_\_ ID no : \_\_\_\_\_

Rotation title : \_\_\_\_\_ Rotation Dates: \_\_\_\_\_

### Assessments

Assessment of student progress is based on the learning objectives. Students will receive final performance assessments from their preceptors. The student will be assessed by the preceptor on performance and professionalism via rubrics on assigned items.

### I: General Skills & Abilities

1	2	3	4	5	
					1. Demonstrates confidence, reliable and dependable; fulfills responsibilities; meets expectations
					2. Meets the standards for attendance and punctuality
					3. Prioritizes, completes and organizes tasks, assignments, and projects on time without prompting
					4. Is self-directed in undertaking tasks; self-motivated; initiates activities and demonstrates desire for self-improvement
					5. Accepts and applies constructive criticism; responds to feedback; modifies behaviors

### II: Pharmaceutical Industry Assessment

1	2	3	4	5	
					6. The student is able to apply rules of good storage practice of raw materials and finished products
					7. The student is able to apply the basic concepts of manufacturing in pharmaceutical industry
					8. The student is able to operate different pharmaceutical equipment and instruments
					9. The student is able to perform various qualitative and quantitative analytical techniques and fulfill criteria of GLP and GMP to assure the quality of raw materials
					10. The student is able to perform various qualitative and quantitative analytical techniques and fulfill criteria of GLP and GMP to assure the quality of manufacturing procedures
					11. The student is able to perform various qualitative and quantitative analytical techniques and fulfill criteria of GLP and GMP to assure the quality of finished pharmaceutical products.
					12. The student is able to perform pharmaceutical pre-formulation development
					13. The student is able to perform pharmaceutical finished product development
					14. The student is able to practice a quality assurance task in pharmaceutical industry
					15. The student is able to practice a quality control task in the pharmaceutical industry
					16. The student is able to apply pharmaceutical sciences to product development, process validation and in-process control
					17. The student is able to apply pharmaceutical sciences to product development
					18. The student is able to apply pharmaceutical sciences to process validation
					19. The student is able to apply pharmaceutical sciences to in-process control

**Instructions for score calculation**

Following is a list of items covering the APPE activities. Please read each item and evaluate the degree to which each item was covered. Then mark the appropriate —square indicating that the coverage of item is — Excellent, Very Good, —Good, —Satisfactory, or —Poor.

For calculation of the total score a five-point Likert scale response format ranging from — 1 = Poor to —5 = Excellent was chosen. The total score of each student is calculated according to the following formula:

$$T * F (1.05) = Y\%$$

Where T is the total score of the student

F is a factor (1.05)

Y is the percentage of student score.

$$\text{Score} = \dots\dots\dots \times 1.05 = \dots\dots\dots\%$$

Other Comments

Specific strengths:

- 
- 
- 

Specific areas need improvements:

- 
- 
- 

Preceptor's Name: .....

Institution: .....

Preceptor's Signature: .....

Date: .....

## Rotation Assessment forms for Drug information rotation

**Rotation:** ..... **Training period:** .....

**Student's Name:** ..... **ID:** .....

<b>5 = Excellent</b>	Consistently performs at expected pharmacist level and displays attributes consistent with an excellent practitioner.
<b>4 = Very Good</b>	Very often performs at expected pharmacist level competency.
<b>3 = satisfactory</b>	Often at an expected pharmacist level. Displays attributes consistent with readiness to enter general practice
<b>2 = poor</b>	Rarely perform at the expected level for a pharmacist. Needs improvement to be ready to enter general practice
<b>1 = Deficient</b>	not applicable or no opportunity to evaluate during this rotation

Item	Marks (1-5)
1-Oral & written communication	
2- Presentation	
3-Attitude and behavior	
4- Leadership	
5-professionalism with patients with ethics	
6- Maintain competence to practice through life-long learning.	
7-Awareness & quality	
8-management & safety	
9- Applying the knowledge to practice	
10- Providing drug information	
11-Drug use evaluation	
12-Drug monograph	
13-Answering phone calls	
14-Medication error documentation	
15-Medication error analysis	
16-Adverse drug reaction documentation	
17-Pharmacy and therapeutics committee	
18-Journal club evaluation	
19- Literature evaluation	
20-Identifies opportunity for patient health and wellness promotion	
<b>Total grade (100)</b>	

**Comments (if any):**

.....  
.....

**Evaluator/Preceptor name:** \_\_\_\_\_

**Position:** \_\_\_\_\_ **Signature:** \_\_\_\_\_

**N.B:** This should be returned to the college of pharmacy (Pharmaceutical Training Unit)

### Final evaluation form

#### OTHER ELECTED SITE SPECIFIC ROTATION

Name of the rotation: .....

	Item	Marks (0-5)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
<b>TOTAL GRADE (100)</b>		

**Midpoint evaluation (at end of 3<sup>rd</sup> week):**

Poor       Need improvement       Satisfactory       Good       Excellent

**Comments (if any):**

.....  
.....

**Final grade: ...../30 (Professionalism) + ..... /70 (Clinical skills) = ...../100 (final total)**

**Student's Name:** \_\_\_\_\_

**Evaluator/Preceptor name:** \_\_\_\_\_

**Position:** \_\_\_\_\_      **Signature:** \_\_\_\_\_

**N.B:** This should be returned to the college of pharmacy (Pharmaceutical Training Unit)

### Student Evaluation on Preceptor Performance during APPE

**Preceptor Name:**..... **Title/Position:**.....

**APPE rotation Name:** ..... **Site Name:** .....

**Evaluation Period:** ..... **through**

**Date:**        /        /

Please check one of the following for each category.

**1 - ALWAYS**

**2 - FREQUENTLY**

**3 - SOMETIMES**

**4 - NEVER**

Evaluation of the Preceptor		1	2	3	4
1.	The preceptor was a pharmacy practice role model.				
2.	The preceptor gave me feedback on a regular basis.				
3.	The preceptor's feedback helped me improve my performance.				
4.	The preceptor was available when I needed him or her.				
5.	When possible, the preceptor arranged the necessary learning opportunities to meet my objectives.				
6.	The preceptor displayed enthusiasm for teaching.				
7.	The preceptor gave clear explanations.				
8.	The preceptor asked questions that caused me to do my own thinking.				
9.	The preceptor answered my questions clearly.				
10.	The preceptor modeled for me, coached my performance, or facilitated my independent work as appropriate.				
11.	The preceptor displayed interest in me as a resident.				
12.	The preceptor displayed dedication to teaching.				
<b>Comments</b>					

## Student Self-Assessment of Skills & Clinical Knowledge outcomes

### Instructions

Throughout the APPE year, you will be exposed to various diseases, therapeutic plans and variety areas in pharmacy. *It is important to note that students will gain moderate to extensive experience in some, and little to no experience in others, since this ultimately depends on the type of rotation sites where experiences have been completed.*

This self-assessment checklist allows the student to perform a self-assessment of their knowledge and experience at the start of the APPE. This can aid in the structuring of learning opportunities throughout the year. *These scores are not related to competencies or grades.* At the end of each rotation, a re-evaluation of your skills and knowledge allows you to document the progression of your educational experience with respect to skills and knowledge gained over the academic year.

### At the start of the experience:

**Students are asked to** complete all information at the top of the self-assessment form, as well as the Pre-exposure assessment in skills/knowledge prior to the start of the experience.

A score of 1-5 should be placed next to each area to indicate the student's own assessment of their skill level in that area. Students then bring this completed self-assessment in the 1<sup>st</sup> day of the clinical rotation for discussion with their preceptor. Students are expected to keep copies of these self-assessments in a folder, to be presented to their preceptor for review at the start of the experience.

Preceptors and the student will review the student's self-assessment at the start of the experience as a means of identifying educational needs that can be addressed during that APPE.

### At the end of the experience:

Students again rate themselves in all areas. This serves as a means of documenting changes in skills and knowledge gained during the professional experience.

Preceptors are encouraged to use the "Preceptor Column" to indicate those areas in which students had an opportunity to gain experience. If left blank, it will be assumed that there was little or no opportunity for the student to gain experience during that experience.

## Student Self-Assessment of Skills & Clinical Knowledge outcomes

Dates: \_\_\_\_\_ Site: \_\_\_\_\_

Student Name: \_\_\_\_\_ Preceptor: \_\_\_\_\_

### Instructions:

Students should rate their level of skill/knowledge in *all* areas before and after each rotation using the scale below. *These scores are not related to competencies or grades, rather are intended for use by faculty in helping to tailor the APPE to meet educational needs.*

Assuming you have access to the usual resources, a score of “1” would indicate that you would need extensive direction in solving a problem related to that area. A score of “5” would indicate that, given ready access to the usual resources, you could work independently to solve problems related to that area.

**1 = No experience/knowledge in this area; would require extensive assistance**

**2 = Minimal experience/knowledge in this area; would require substantial assistance**

**3 = Moderate experience/knowledge; would require moderate assistance**

**4 = Moderate experience/knowledge; would require minimal assistance**

**5 = Extensive experience/knowledge; would be able to function independently**

Skills/Issues	Pre-Experience Assessment	Post-Experience Assessment	Preceptor Column Place a “√” next to areas taught during APPE
Problem-solving skills			
Organizational skills			
Communication skills with patients			
Communication skills & working collaboratively with health professionals			
Written communication skills			
Collecting and recording patient-specific data			
Drug Information			
Identifying & assessing actual and potential drug-related problems			
Development of pharmaceutical care plans			
Measuring and documenting patient outcomes			
Educating patients regarding the appropriate use of drugs			
Educating health care professionals regarding the appropriate use of drugs			
Bioethical issues and ethical dilemmas			
Health promotion/screening (immunizations, cancer screening, glaucoma, etc.)			
Patient education			
Patient referral issues			
Professional issues specific to this practice site			
Apply knowledge & skills to be a medication therapy expert			



<b>Knowledge in Disease States or Practice Areas</b>	<b>Pre-Experience Assessment</b>	<b>Post-Experience Assessment</b>	<b>Faculty Column</b> Place a "v" next to areas taught during APPE
Adverse drug reactions & Allergies			
Alzheimer's Disease			
Anemias			
Anticoagulation			
Anxiety/Panic Disorders			
Arthritis			
Asthma/COPD			
Business/Management			
Cardiovascular Disease			
Cerebrovascular Disease			
Compounding			
Constipation/Diarrhea Therapies			
Contraceptive Methods/Issues & STDs			
Depression			
Dermatological Disease			
Diabetes			
Drug-drug interactions			
Drug Distribution Systems			
Dyslipidemias			
Geriatrics			
GERD/PUD			
Glaucoma			
Gout			
Hematology/Oncology			
Herbal & Non-traditional Therapies			
Hormone Replacement Therapy			
Hypertension			
Infectious Disease			
Men's Health Care Issues			
Neurological Diseases			
Nutrition			
Osteoporosis			
Otitis Media/Externa			
Pain Management			
Parkinsonism			
Pharmacokinetic Applications			
Pediatrics care issues			
Pregnancy Issues			
Psychiatric Disorders			
Renal Failure (acute/chronic)			
Seizure Disorders			
Skin Care/Wound Management			
Sleep Disorders			
Thyroid Disease			
Toxicology			

## طرق التواصل مع كلية الصيدلة

1. رئيس لجنة التدريب الصيدلي: د. عبدالله العطار

2. البريد الالكتروني الخاص بسنة الامتياز [pharmacytraining@ut.edu.sa](mailto:pharmacytraining@ut.edu.sa)